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MOTORCYCLE ILLUSTRATED

THURSDAY, JANUARY 9, 1913

Issued Every Other Thursday by the Motorcycle Publishing Co., 51 Chambers St., New York

AT THE COMING SHOWS

Examine the 1913 Models of

The *Indian* Motocycle

NOTE the latest and greatest comfort feature—The Cradle Spring Frame. The only motorcycle with the automobile principle of spring suspension. Leaf sprung fore and aft. Absolute riding comfort.

NOTE the equipment of foot-boards in addition to pedals on the regular models and the improved luggage carrier fitted to all models.

NOTE 8 other Important Improvements and 29 additional "refinements." Have the demonstrator explain them to you personally.

NOTE that all these new features are embodied in the machines without extra charge. No change in prices.

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GOODYEARS

AKRON, OHIO

MOTORCYCLE Tires must meet conditions as they find them. But conditions change. So tires must change. Tires that did yesterday won't do today.

Improved roads making for greater speed, the adoption of the free engine clutch, the growing popularity of the tandem are signs of progression. And they mean overloaded, overstrained, overtaxed Tires.

To meet these conditions tires must be built with greater strength—treads must be tougher—the whole construction more durable.

And thus our Tire experts are building Goodyear Motorcycle Tires. They are building them with tougher, more durable treads than ever—building them to stand the fabric-rending strain of the free engine clutch, the wear and tear of high speed, the tax of overloading. They are building them **up to date** only as the experts of No-Rim-Cut Automobile Tire fame know how to build dependable pneumatics.

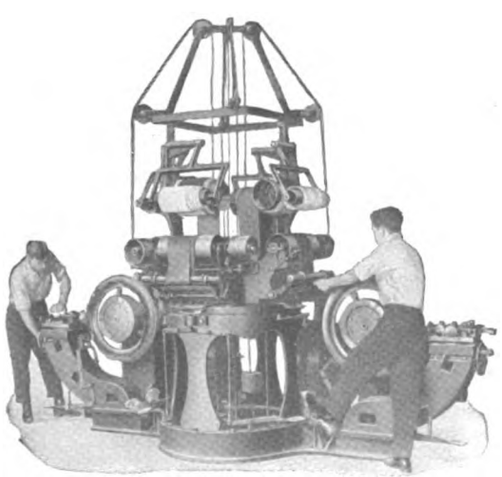
And the greater part of Motorcycledom has come to look on.

From the closest figures available we estimate that Goodyears equipped two out of every three new machines in 1912.

26 Motorcycle makers have adopted Goodyear Motorcycle tires for next year.

This with the demand from other sources will, we figure, result in the use of almost as many Goodyear Motorcycle Tires as **all other makes combined.**

And all because these tires give **service**—all because they are built to meet men's current needs.



The Machine-Made Motorcycle Tire

That is one advantage of Goodyears. They are made on machines. These machines, by means of which the uncertain hand method of stretching the plies of fabric is done away with, insure a tire of uniform tension—a tire of uniform strength and durability.

Countless tests prove these the most durable tires in existence.

Made by Makers of No-Rim-Cut Auto Tires

That's another advantage. You get the benefit of the years of testing and experimenting that have gone into Goodyear No-Rim-Cuts—the popular Automobile tires of the day—tires with sales of over **seventeen hundred THOUSAND.**

A New Booklet Now on Press

This booklet tells all about our tires. It is full of practical points every motorcyclist ought to have. Let us send it as soon as printed. Address

THE GOODYEAR TIRE & RUBBER COMPANY, AKRON, OHIO

Branches and Agencies in 103 Principal Cities We Make All Kinds of Motorcycle Tire Accessories and Repair Outfits

Main Canadian Office, Toronto, Ont. Canadian Factory, Bowmanville, Ont.

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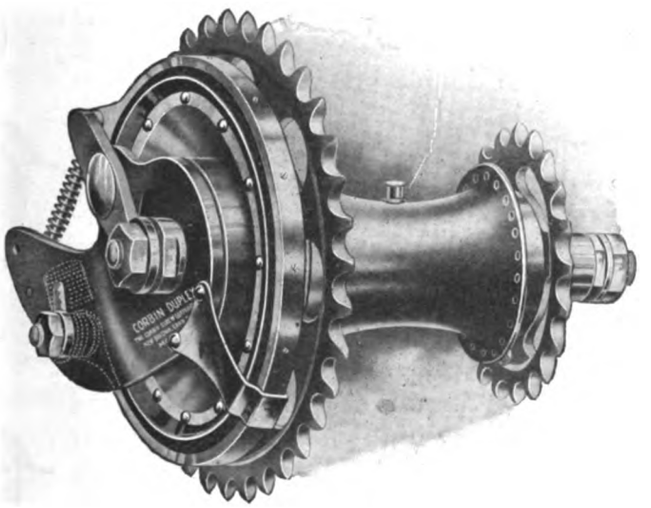

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The "Trinity" is for the whole family, and has a detachable child's seat.

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All attachments steel forgings. Special attachments for spring frame Indian.

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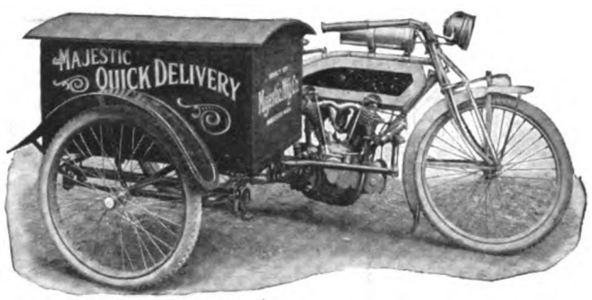
Saves Time :: Pleases Patrons :: Brings Business

Most practical, cheapest and quickest method of delivering light merchandise.

Good for the R. F. D. man, too.



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Body built of 5 layers of tough wood with grain crossed. Lighter, tougher than steel.

Compound springs, easiest riding without tip, sway or jar.

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Science has proved that the accuracy of mechanism so constructed cannot be affected by climatic changes.

It is this reason in addition to absolute simplicity—the total absence of complicated parts—that makes the

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"The Speedometer of *Permanent* Accuracy" for Motorcycles

There are no delicate parts to jar loose or break and thus reduce the instrument's efficiency

The Corbin-Brown is calibrated up to 80 miles. It records low mileage just as accurately as high.

Can be attached to front or rear wheel without disturbing even slightly the motorcycle's adjustment.

Records a total of 100,000 miles, making it possible to keep an accurate record of the complete mileage the machine has accomplished.

Sold by leading motorcycle dealers everywhere. Order of your jobber.
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PENNSYLVANIA Oilproof VACUUM CUP TIRES

For Motorcycles

The oilproof feature has made a huge hit. No improvement was more surely needed. Riders who were weary of paying out money for "oil disease" are swinging over to Vacuum Cup tires—because they resist oil. The addition of this tremendous feature to tires already renowned for their leadership as anti-skid and longer wearing tires makes an opportunity for record sales that is boundless.

1913 will see an additional 80,000 motorcycles put on the roads of the country. See that each rider in your locality gets Vacuum Cup Oilproof tires. They'll be expecting you to carry them.

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Pittsburgh, 505 Liberty Ave.
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For Bicycles

Oilproof, Anti-skid and Long Wearing—the perfect bicycle tire. The oilproof feature, and its distinguishing mark, the Red Tread, has still further increased the tremendous popularity of Vacuum Cup Tires. Outside of their truly remarkable service and anti-skid efficiency, the Red Tread carries a strong appeal to the eye. The wheel gains a new distinction. To show these tires is to keep on ordering them from your jobber. Dealers are having this fortunate experience throughout the entire country. Get after all the bicyclists in your territory. You can not only sell a pair to every rider, but you can induce others to bring "resting" wheels out into the light again. There's money in it.

NOTE: Pennsylvania Bicycle Tires now have a flannel strip inside, which facilitates cementing to the rim.

Get in your orders.

NON SKID V TRADE MARK REG. U.S. PAT. OFF.

COMPANY, Jeannette, Pa.

February 1, 1910)

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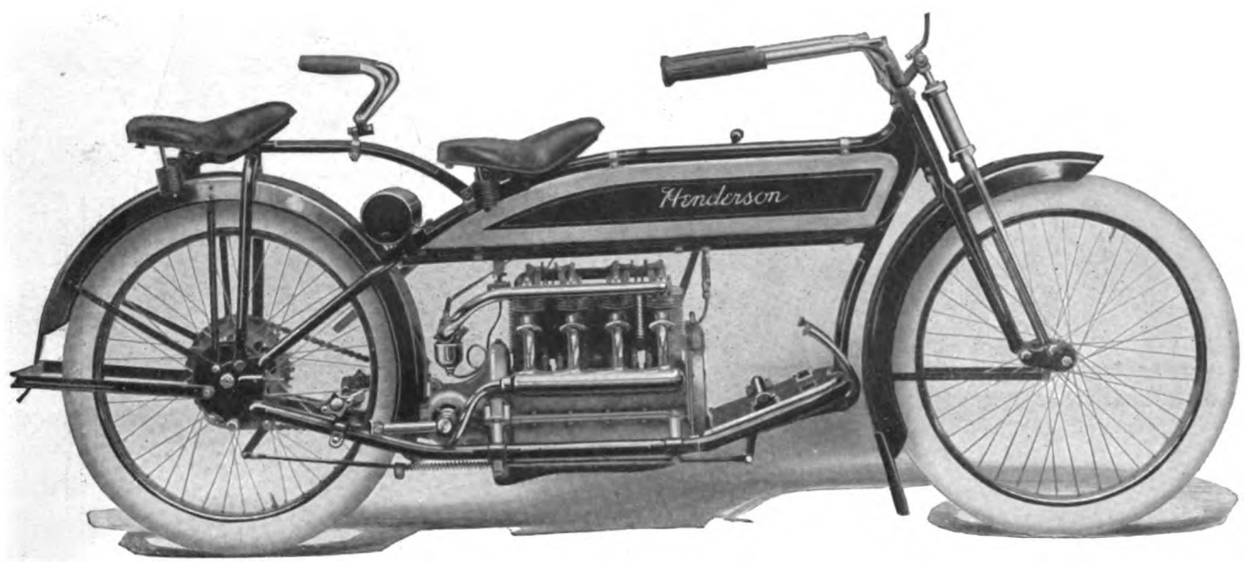
The Henderson exhibit that meets all



THE 1913 HENDERSON, 8 H. P., 4 CYLINDERS, FREE ENGINE, CHAIN DRIVE $325

Any motorcycle dealer or rider knows that the great demand of the day is for power, flexibility, silence, comfort and vibrationless riding.

And the man who studies the Henderson—at the show or at his home dealer's—will see how fully and completely the Henderson meets all these demands.

It did so last year more satisfactorily than any other motorcycle.

It does so again this year in the same fashion.

It does so because of its advanced design—because of its four-cylinder motor, its long wheelbase, its unique saddle position, etc.

Having four cylinders, the Henderson runs without vibration and with a smoothness impossible with any other type of motor.

It is also possible to throttle the motor to slower speed and still have power enough to pull than with any other type.

The saddle well forward of the rear wheel; the feet resting on comfortable foot-rests instead of pedals; a long wheelbase and low center of gravity; the large tires—these are some other exclusive Henderson features.

With the 1913 output more than half sold, dealers and buyers alike will realize the necessity for prompt action if they want to sell or ride the most popular motorcycle of the year.

HENDERSON MOTORCYCLE CO., 1158 Cass Ave., DETROIT, MICH.

Distributors: New York & Brooklyn Auto Supply Company, 1717 Broadway, New York City; Henderson Motorcycle Sales Company, 1324 Michigan Avenue, Chicago, Ills.; A. M. Kupfer, Inc., Los Angeles, California.

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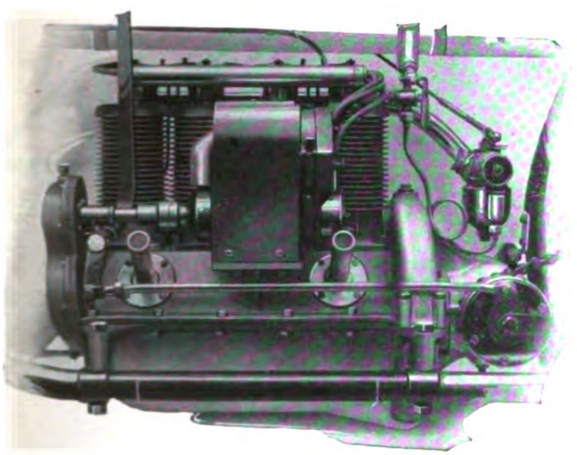
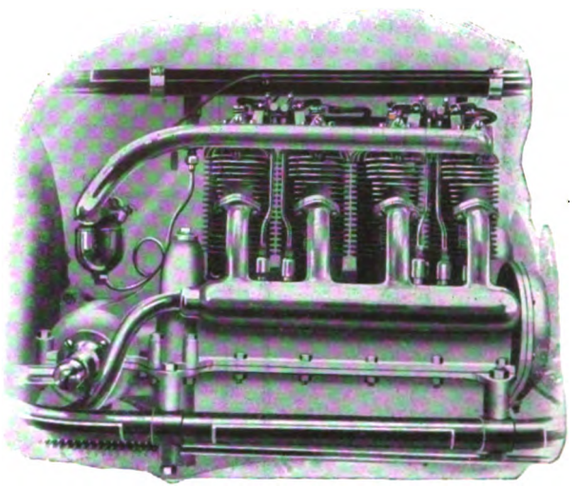
shows the one machine popular demands



LEFT SIDE OF MOTOR



RIGHT SIDE OF MOTOR

SPECIFICATIONS OF THE HENDERSON 8-65

Motor—Four cylinder 2⅝" bore, 3" stroke, 65 cubic inches displacement, L head.

Starting Crank—Folding design, Henderson patent.

Carbureter—Schebler.

Valves—Mechanically operated.

Ignition—Bosch magneto, D U 4, fat hot spark.

Muffler—Sealed joints; silent, no back pressure; nickeled and polished.

Lubrications—Splash system with sight feed.

Control—Double grip.

Handle bars—U-shaped, with brace.

Transmission—Chain drive, free engine.

Tool-bag—Round metal—with complete set of tools.

Finish—Enameled royal blue and aluminum, with striping; highly nickeled motor.

Clutch—Eclipse.

Tank—Square type, divided for 3 gallons gasoline, 2 quarts oil.

Frame—Cradle type 1¼", 13 gauge tubing.

Fork—Triple stem, with 2 large springs.

Wheels—28", standard.

Tires—28" x 3", front and rear, large and easy riding.

Brake—External band, Henderson design. Extremely powerful and simple.

Foot-board—Aluminum, roomy, with rubber foot-pads.

Stand—Henderson special, one piece.

Saddle—Special Henderson-Persons.

Tandem—$25 complete.

Price—$325 F. O. B. Detroit.

HENDERSON MOTORCYCLE CO., 1158 Cass Ave., DETROIT, MICH.

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Mott Steel Rims

Durability—the power to withstand severe use and often abuse—must be built into every motorcycle.

The tires are a motorcycle's shoes—the rims are the feet.

On rocky, rutty roads, the rims are necessarily subjected to considerable punishment.

Wise manufacturers insure longer service by using

MOTT STEEL RIMS

For strength, elasticity, durability, MOTT STEEL RIMS are at the height of perfection. They cannot but be so, in that they are made in a plant whose enormous manufacturing facilities are devoted exclusively to the making of Steel Rims.

The Show's the place—let us convince you.

The Mott Wheel Works

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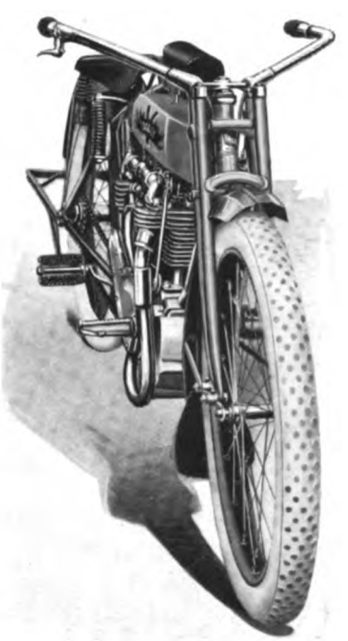
YALE
THE CONSOLIDATED MFG. Co. TOLEDO, O.

Motorcycle Construction of Quality

QUALITY, in a motorcycle, is tangible and material. It can be seen, measured and tested. It is not a vague, indefinable substance for which you have to take the manufacturer's word. It is created by the use of selected and tested materials, built by accurate and scientific methods by skilled, experienced mechanics from designs that embody the best ideas of all the engineers and technical experts who have worked on motorcycle problems.

¶ In the following pages are set forth some of the facts that make the YALE "*the Motorcycle of Highest Quality*"



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YALE
THE CONSOLIDATED MFG. Co. TOLEDO, O.

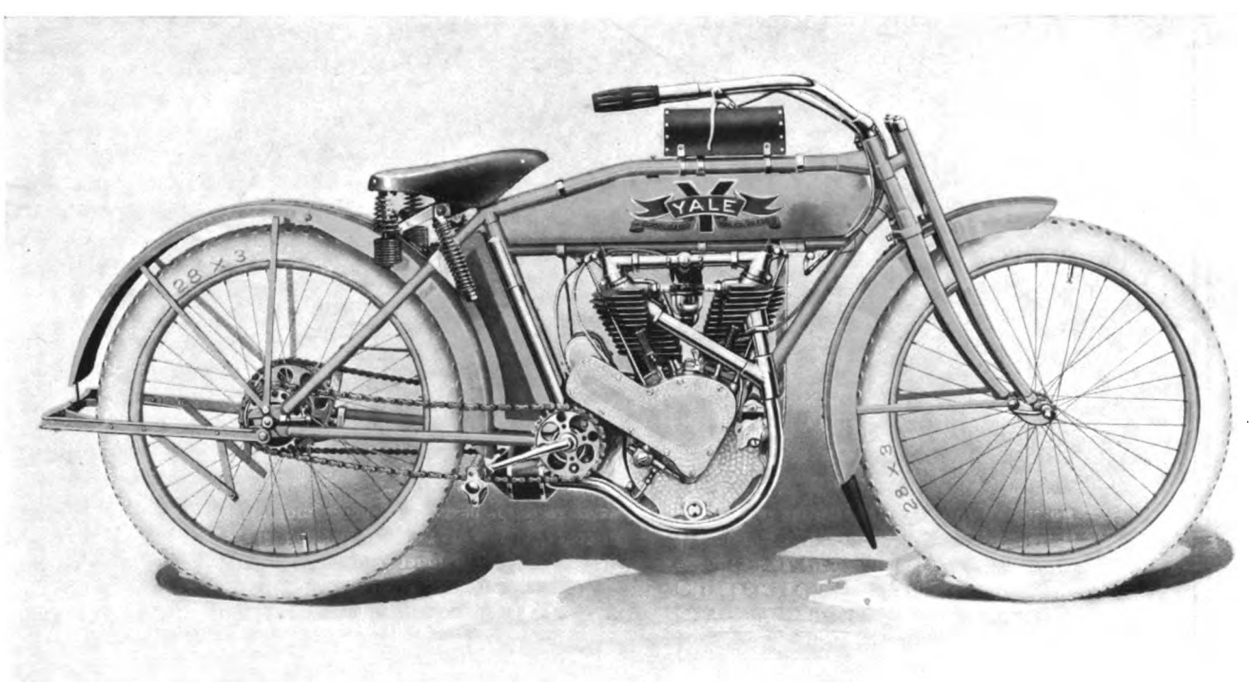
Motors of 60.92 Cnbic Inches that

THE power plant, as the most vital part of any machine, is considered the point of first importance by practically all riders. Yale motors are the most efficient gasoline engines ever put in road machines—and there's a reason for it.

¶ The Yale twin puts an abundance of power always at the rider's command—an unconquerable reserve that overcomes every difficulty. The motor is of the long-stroke, high-efficiency type, with all moving parts so perfectly balanced that it runs absolutely without vibration.

The Cooling Problem

¶ On this motor the cooling problem, which has baffled makers of other twins, is solved effectively. The cylinder flanges are horizontal, in



BIG 7-8 H. P. Twin Yale. Note the "classy," racy appearance. Drive by roller chain or big V belt (no flat belt could hold the full power of this motor) with Eclipse free-engine clutch on all machines. Yale cushion fork and Y-A shock absorber. Troxel saddle. Three-inch tires (automobile size) Goodyear, U. S., Federal or Diamond. Hinged rear mudguard. Footrests, with auxiliary foot lever for operating brake when feet are on rests. Corbin band or Eclipse multiple disc-brake. Wheelbase, 57½ inches. Large separate tanks carrying three gallons of gasoline and a gallon of cylinder oil. Throttle and spark controlled from grips, with exhaust-valve lift operated by independent lever under right grip. Unusually efficient muffler with cutout that when opened gives free, straight-line outlet for gases.

$275

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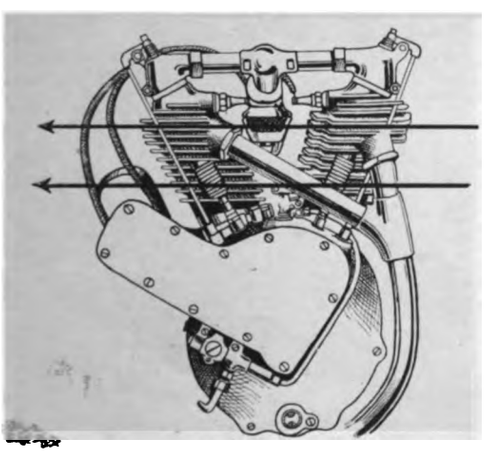
YALE
THE CONSOLIDATED MFG. Co. TOLEDO, O.

Develop Nearly 10 Actual Horsepower

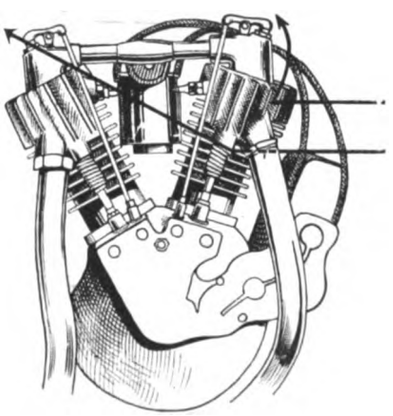
line with the direction of the air currents. Thus the air travels straight through, sweeping freely over the surfaces of both cylinders and cooling them perfectly, instead of being deflected upward by the slanting flanges of the front cylinder so that the rear is missed.

¶ The back cylinder of the average twin motor is in a dead pocket, as the air is kept away by the front cylinder, and it naturally overheats, eating up power and forming a drag on the motor.

¶ The Yale twin motor is of 60.92 cubic inches piston displacement, rated conservatively at 7-8 horsepower. But by accurate balancing, perfect proportion of all parts, and expert precision in building, such remarkable efficiency has been attained that this motor develops far above its rated power. The average pull of the Yale twin motors—on actual block test, not "calculated" or "estimated" power—is 9.2 horsepower. Many pull close to 10 H. P., but all are well above 9.



SKETCH showing how air currents pass straight through between the horizontal flanges of the Yale two-cylinder motor, sweeping freely over the surfaces of both cylinders, so that heat is carried away from the rear cylinder as well as the front, cooling both perfectly.



SHOWING action of air currents on twin motors used on other machines. The air strikes the front cylinder and is deflected up, so that it misses the rear cylinder and fails to carry away the heat. On such a motor the back cylinder is always more or less overheated and is a continual drag on the engine.

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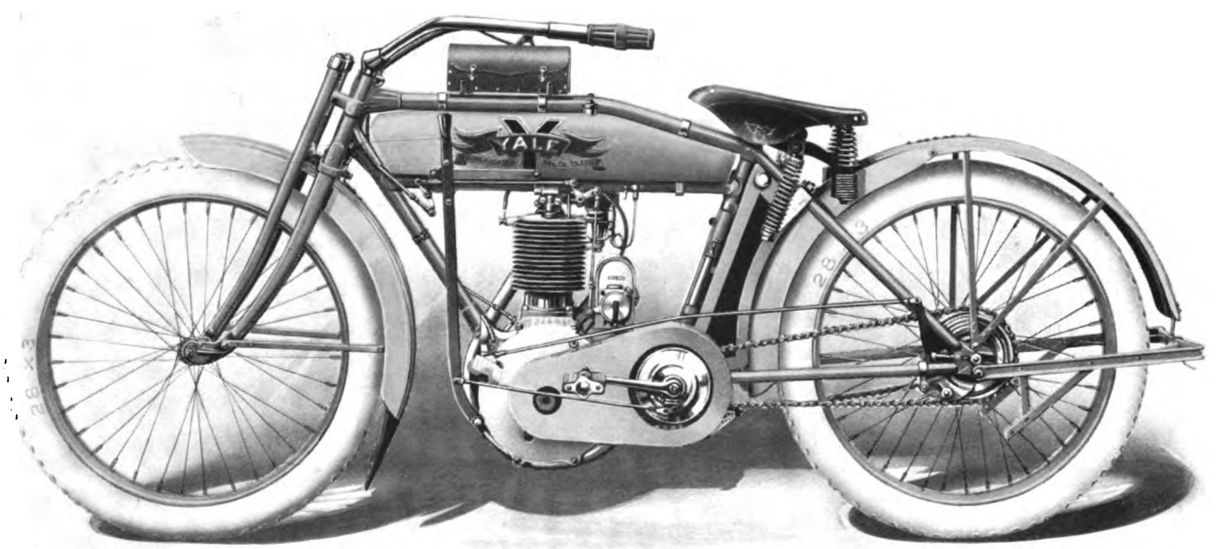
YALE
THE CONSOLIDATED MFG. Co. TOLEDO, O.

Reserve Power, More Flexibility, and

UNUSUAL all-around ability marks the 1913 single-cylinder Yale, which pulls nearly six actual horsepower. There is an abundance of power for all emergencies, such as used to be found only in twins, combined with wonderful simplicity and sturdiness of construction. The correct proportion, accurate design and exquisite balance of every moving part in this single-cylinder motor render it so efficient that its unusual power is produced without making it large and bulky. Compact, capable, "there with the goods" whenever called upon—that's the "Big Y" single.

¶ Getting down to details emphasizes the superiority of this over other single-cylinder motors—many of them are still of the old 4 h. p. type.

¶ The crankshafts, for example, are ⅞ inch diameter and 1⅝ inches long. The crankpin gives exceptionally large bearing surface for the connecting rod, as it is ⅞ inch diameter and 2 inches long.



POWERFUL 5-6 H. P. Yale single-cylinder model. Transmission by roller chain or flat belt, with Eclipse clutch. Flat belt models have independent adjustment of clutch engagement and belt tension to allow most effective operation. Y-A shock absorber and Troxel saddle. Yale cushion fork. Three-inch tires, Goodyear, U. S., Federal, or Diamond. Hinged rear mudguard. Footrests with auxiliary foot lever for operating brake when feet are on rests. Eclipse multiple-disc or Corbin band brake. Wheelbase 57½ inches. Separate tanks holding three gallons of gasoline and one gallon of lubricating oil. Grip control with exhaust-valve lifted by independent lever under right grip. Muffler behind motor with cutout to give free, straight-line outlet to gases when opened.

$225

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YALE
THE CONSOLIDATED MFG. Co. TOLEDO, O.

Superior Capability in New 5-6 h. p. Yale

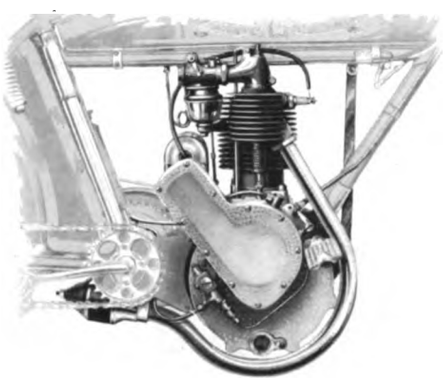
Both shaft and pin are of chrome nickel steel, hardened and accurately ground to size. Compare these with the sizes of bearings used on any other motorcycle engine.

¶ The piston pin, also of chrome nickel steel, is held in place by brass pins, which cannot loosen. The connecting rod, drop-forged and of unequalled strength, is more than twice the length of the stroke, which gives an easy angle to its motion, reduces side thrust and makes wear on all parts less. On each end are unusually large bosses for bearings, so large and strong that no strain will ever stretch or weaken them.

¶ Bushings of special alloy are used, with walls 7/32 inch thick, and special self-contained reservoirs and oil channels give positive lubrication of all bearing surfaces all the time.

¶ All gears are drop-forged, pressed on steel shafts, with teeth of helical type that, by rolling into engagement instead of jumping together, give better contact and are quieter than plain spur gears. Two teeth on each gear are always in full engagement. The cams have wide faces, hardened and ground. The plunger rods of the valve mechanism are also hardened and pass through steel bushings, with a dust sleeve to keep out grit.

¶ Lubrication is by a positive mechanical plunger pump, absolutely automatic in its action. Oil is always supplied in exactly the right amount without depending on the rider's memory or judgment.



YALE single-cylinder motor. Pulls nearly 6 horsepower on actual block test. Mechanically operated inlet valve with substantial overhead rocker arm and pushrod. Exhaust and inlet cams separate to give accurate timing. Mechanical oil pump of plunger type driven by worm gear. Auxiliary hand oil pump. Special Heitger carburetor. Waterproof Bosch magneto of enclosed type.

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YALE
THE CONSOLIDATED MFG. Co. TOLEDO, O.

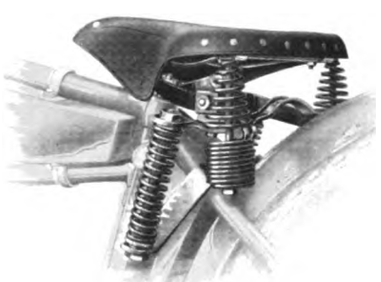
Luxury on the Road and How the

COMFORT requires more than a mere system of springs that yield when road shocks are met by the wheel, for side play from a jointed spring frame or wobbly spring seatpost that makes riding dangerous, or the constant danger of an inadequate spring fork breaking, harass the mind of the rider so that the pleasure of any ride is destroyed by the uncertainty.

¶ On the Y-A shock absorber—the most efficient device used for eliminating rear-wheel jolts—two big, flexible springs smooth out every little vibration and unevenness, as well as absorbing completely the heaviest jars and slams, such as are caused by hitting big boulders or deep chuck holes at high speed.

¶ Y-A design makes sideplay impossible. The Yale can be handled at high speed on sharp turns, or under conditions where control is difficult, with the certainty of a rigid machine. Every rider who has tried it is enthusiastic. Students of motorcycle construction who study the features of all types of motorcycles, say that it embodies the right ideas, has the best construction according to engineering theories—and the experience of thousands of practical riders has proved these theories to be sound.

¶ The Yale was the first motorcycle to use an effective cushion fork, and last season's record shows that it now has the most dependable as well as the easiest-riding fork, for not one 1912 fork was broken. A graduated system of long springs takes up every road shock and quiver, making all surfaces seem level. Extra-long recoil springs,



ALL 1913 Yale Motorcycles are fitted with the Y-A shock absorber, "the original jolt-killer." Two big springs thoroughly insulate the rider from every road jar or vibration. Sideplay is made impossible by its construction. Also gives a very low saddle position.

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YALE
THE CONSOLIDATED MFG. CO. TOLEDO, O.

1913 Yale Motorcycle Provides It

of special spring steel carefully tempered, check the rebound when the direct shock is past, and make the operation smooth and perfect. The length and special temper render breakage of these springs practically impossible. The six "Big Y" riders in the four-state 1,300-mile Kansas Short Grass Tour finished without a spring broken or a frame or fork defective—service unequaled by any other machine. They came on home on the same machines. How many others did?

¶ A few fine points of design make the fork of the "Big Y" far more effective than its imitations—for there are other forks that *look* much like that of the Yale, but which fail sadly to deliver its service. For instance, by slanting the fork just right and by placing the rocker arms at a certain angle, the effect of a trailing front wheel is given and the wheel passes over bumps more easily and with less shock than a wheel actually swung behind the fork tips, as on the so-called "castor" type of fork.

¶ The wheelbase of the Yale is 57½ inches, which has been found ideal after thorough testing. This length minimizes road jars and gives ease of riding, and at the same time is not so great as to make the machine unwieldy. The "Big Y" holds the road perfectly at high speeds.

¶ The low-hung motor, held by straight-line frame tubes, gives excellent balance and steering qualities, and the frame, reinforced by a vertical steel wall in the center of the tubing, preserves perfect alignment under the most severe use, so that control is always easy.

YALE cushion fork. Graduated system of long, flexible springs to absorb both little vibrations and heavy shocks. Extra long rebound springs of special spring steel, carefully tempered and unbreakable. Fork sides extending all the way up and connected to handlebars by drop forged crosshead. Substantial forgings at points where strains are met. Fork slanted and rocker arms set at angle to cause wheel to pass easily over obstacles with least jar—giving trailing effect and easier riding than fork of "castor" type, and steering more easily.

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Every Good Point, with Mistakes Left Out

BESIDES its exclusive features, the "Big Y" has every good point—every really good and tested point of advantage—possessed by any other machine. In the Yale you get every feature of value that is used in motorcycle construction, with none of the freaks or experiments.

¶ The mistakes made by others have been detected and carefully corrected before any feature was incorporated in the 1913 Yale. Faults that caused inefficiency, lack of power, weakness, or failure, are not allowed in this machine. We don't use castings or stampings for frame connections or small parts. We use drop forgings, for these are best. We use the strongest type of triple-stem front fork, with the sides and handlebars connected by a substantial drop-forged crosshead. Our flywheels are balanced exactly, absolutely eliminating vibration. There are many features that the average rider does not know of, because they are where he cannot see them, but they make a big difference in the year-round service of the machine.

¶ In the Yale, and in the Yale only, you get all these good points, at the same time avoiding all the mistakes, freaks, and experiments. You can't afford to miss one good point, or to buy one bad one. Its failure to have any one of these good points is sufficient reason for your not buying another make.

¶ We are driving these Yale advantages home to over ten million readers by our $125,000 series of impressive advertisements in publications of immense national circulation. This is what brings business to the dealer. Our ads in the motorcycle journals serve chiefly to keep us in touch with our agents and riders—speak almost exclusively to those already interested—but they don't reach new people or make new riders. This national advertising is convincing men not previously interested, making them see that they need Yale motorcycles. It is creating more business, bringing new customers to the Yale agent in steadily increasing numbers. It removes the element of doubt from the motorcycle business, and guarantees success from the start for the Yale agent.

Get in line with the Yale for a year that will break all records for success — don't delay, for we are closing contracts in remarkable numbers. Tomorrow may be too late. Ask for our proposition right now.

Consolidated Manufacturing Co.

1730 Fernwood Avenue **Toledo, Ohio, U. S. A.**

F. C. CORNISH, Eastern Representative, 219 Clinton Avenue, Newark, New Jersey

Makers also of Yale and Snell Bicycles, Hussey Handle Bars and Drop Forgings of Every Description

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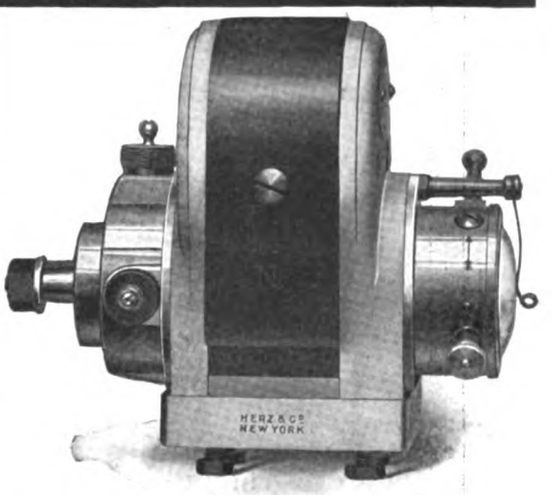
For a Fat, Hot Spark-

a spark that you can count on even at very low speed - the kind of spark that spells the finish of jumpy, irregular ignition - equip your machine with

HERZ MAGNETO



It gives a great big flash at every turn - Tested against 15 competitors on the official English testing machine, it was adjudged the strongest Magneto by 25%.

HERZ MAGNETO is small and light. It is not affected by atmospheric conditions and is protected absolutely against dust and moisture.

For easy starting with retarded spark, no other Magneto can compare with it.

Use Herz Plugs with Herz Magneto.
The combination is the ideal ignition system.

HERZ & CO.

295 Lafayette St., New York.

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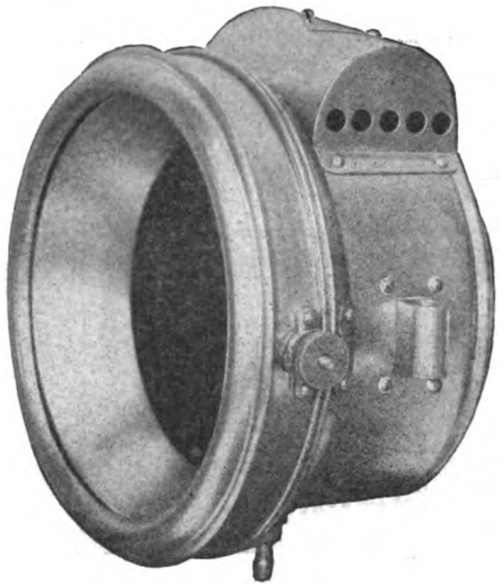
A Good Light on a Worthy Subject



Contained in our new catalogue of over 175 pages, you will find our new Motorcycle Lamp, a special feature of which is the fact that no bolts or screws are used in its construction, rivets being solely employed. In conjunction with the lens mirror of high quality, a nickel reflector inside the door distributes the light so as to clearly illuminate the sides of the road. This is only one of **the most complete line of bicycle and motorcycle supplies in the United States.**

We are primarily prepared to handle the requirements of those dealers who want prompt deliveries and absolute satisfaction at all times. Our enormous floor space, our huge purchasing facilities, coupled with years of experience in the marketing of these goods, make prompt deliveries an easy matter.

NO GOODS SOLD AT RETAIL.

Chicago Cycle Supply Company

22a WEST LAKE STREET

CHICAGO, ILL.

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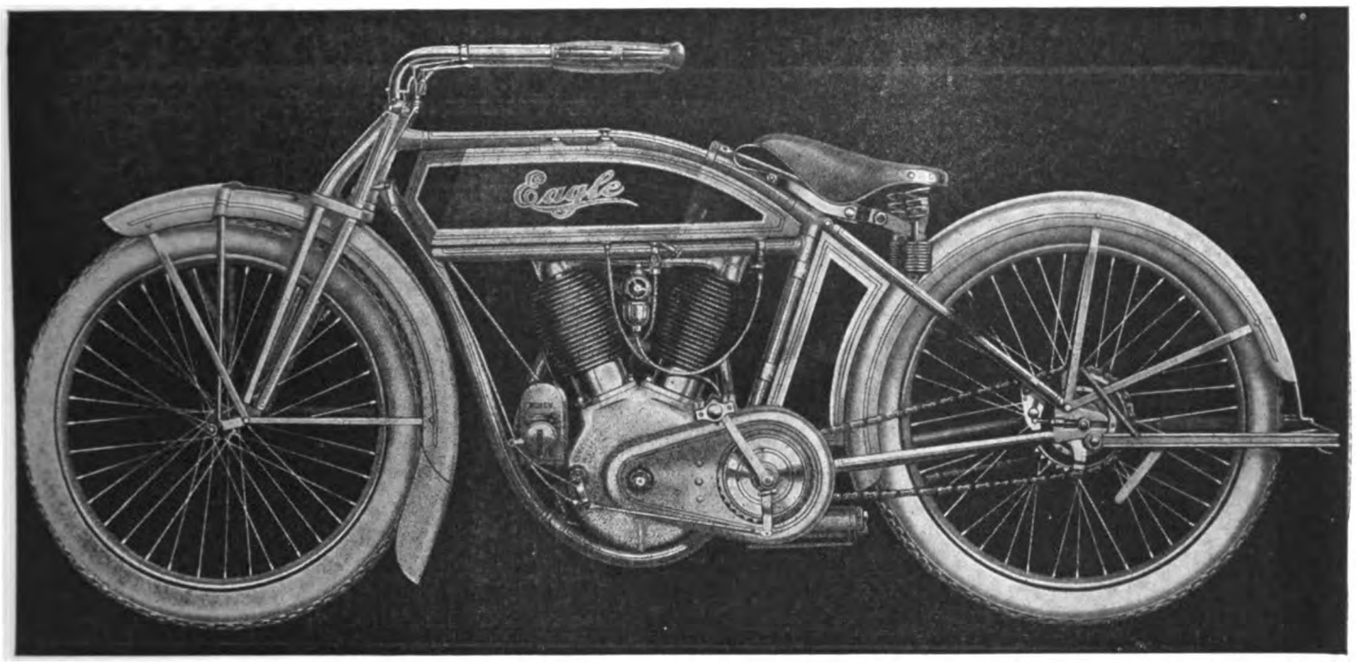
"The Distance Annihilator"

The Great American Eagle

New Chain Drive Twin



A Brand New Model—$275

HERE IT IS—the very latest product of the motorcycle-makers' art. By far

The Finest Thing That Rolls on Two Wheels

Embodies every modern feature that has proven desirable. A better motorcycle could not be built if the price was $500. Just look at the cut and judge for yourself. Notice the marked simplicity of design and symmetrical proportions. Observe the absence of all side levers, control wires, etc.

Get the new circular illustrating and describing the many points of marked superiority

which make the Eagle the very best buy of the season

De Luxe 9 to 12 H. P. Twin **Power Plant,** latest roller bearing type.
"Constant Level" Saddle Post (roller bearing plunger).
Strongest motorcycle **forks** ever constructed.
Only complete grip control. A twist of the grip operates clutch, throttle, spark advance and compression release.
Fenders that fend (extra wide, long and roomy).
A satisfactory chain drive. Special imported chains and scientifically cut sprockets.
Eclipse large diameter multiple disc **clutch** (controlled from grip).
Bosch enclosed type **magneto** and **Schebler carbureter,** of course.

and many other exclusive features

DEALERS—See this machine at our New York Show Exhibit (Booth 705, Balcony, Grand Central Palace). **Apply** for territory **at once** before the other fellow gets it. The **Eagle** is an **easy seller** because it is the **most** and **best** for the money. Write **today.**

AMERICAN MOTOR COMPANY

716 Center Street, Brockton, Mass.

Write Nearest Distributor or Factory for Full Information.

Geo. P. Jenkins, 256 West 55th St., New York City
American Motor Co., 2724 Michigan Ave., Chicago
Cal. Motorcycle Co., 313 S. Main St., Los Angeles, Cal.
American Motor Co. of Texas, Dallas, Texas
D. W. Polkinghorn, Cherokee, Iowa
Redman Motor Sales Co., Valley City, N. Dakota
Andrews & Gaertner, 103 12th St., Portland, Ore.
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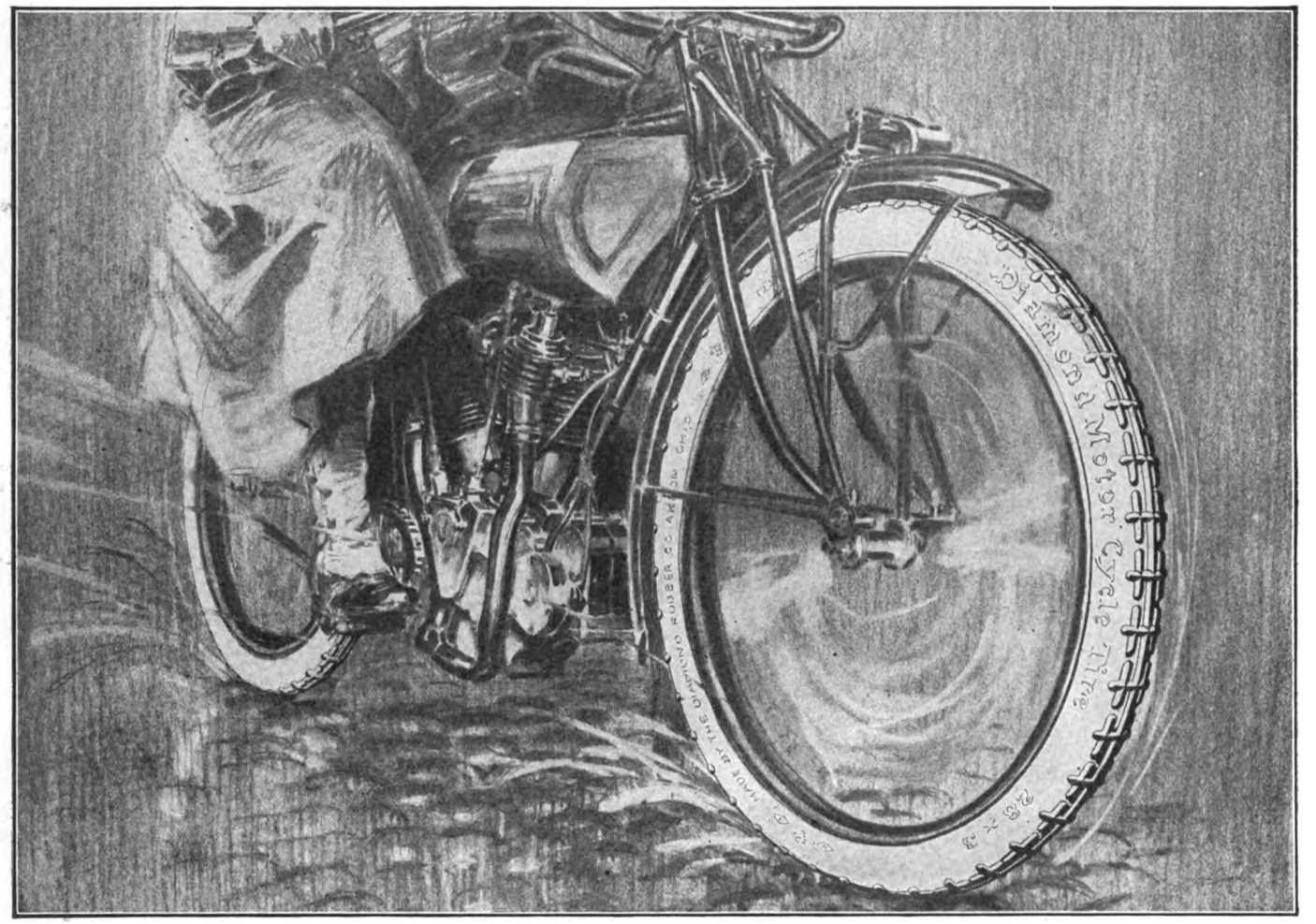
ANY CURBSTONE WILL STOP A SKID

But Only Diamond SAFETY TREAD (SQUEEGEE) TIRES WILL PREVENT ONE FROM STARTING



Diamond Safety Tread Motorcycle Tires obey your will. Your machine is always under your control—you go where you steer.

No matter how slippery and treacherous the pavement, they grip and hold. You ride in safety and you ride with pleasure on Diamond Safety Tread Tires.

But that's not all. There's real economy in Diamond Safety Tread Tires. Extra mileage is built into them and you get it. The mileage strip adds 20% to the wearing surface of the tread and assures you of a correspondingly high mileage and freedom from trouble.

Get this clearly in your mind—The Diamond Safety Tread Motorcycle Tire is not a tire that stops a skid, but prevents one from starting.

THE DIAMOND RUBBER CO. OF NEW YORK

(Subsidiary of The B. F. Goodrich Co.)

AKRON, OHIO

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Diamond MOTORCYCLE TIRES

MADE OF

VITALIZED RUBBER

AND IN TWO FAMOUS TREADS

SAFETY and STUDDED
(SQUEEGEE)

BOTH WITH A DISTINCTIVE DIAMOND FEATURE

THE MILEAGE STRIP

Vitalized Rubber is pure young rubber combined—by a secret process known only to ourselves—with a toughening compound and the result is the toughest, most wear-resisting material every put into a motorcycle tire.

A brand new and exclusive Diamond feature is the mileage strip—extending all round the tire and adding 20% to the wearing surface of the tread. It not only means greater mileage, but it puts the side-slip bugaboo into the discard.

You have the choice of two treads—Safety (Squeegee) and Studded. The sharp, clear-cut studs on the new Diamond motorcycle tire, combined with the mileage strip, will hold your machine where you want it better than any other studded tread tire you can buy.

And, in addition to all these things, you get perfect 3-point rim contact—an assurance that the tire will sit perfectly in the rim. No unnatural distortion or bending of plies to break down the tire before it has given the mileage you pay for and should get.

THE DIAMOND RUBBER CO. OF NEW YORK

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MODEL A

Mueller Tandem Attachments

TO FIT ALL INDIAN MOTOCYCLES

Specially Adapted to New Spring Frame Models

MODEL A attachment is for 1913 spring frame machine and does not interfere with frame action. Attachment is made of steel tubing and drop forgings, well brazed—enameled and nickeled. Large Troxel motorcycle saddle, Kelly adjustable handle bars, standard No. 3 pedals. Enameled red to match motorcycle.

MODEL B attachment will fit all rigid frames fitted with luggage carrier bosses. Also made with curved tube to attach on forward seat post when desired. Colors: Red, blue or green.

L. J. MUELLER

6307-09-11 Woodland Ave. CLEVELAND, O.

MODEL B

See the Big . . .

CHICAGO MOTORCYCLE SHOW

Held Under Auspices and Sanctioned by the Motorcycle Manufacturers' Association

February 3 to 8, 1913

AT

1319 MICHIGAN AVE.

The Greatest and Only National Motorcycle, Bicycle and Accessory Show of the Year

Dealers and Riders

Visit this Enormous Exhibition

See and inspect the products of every manufacturer. Know personally the progress achieved by the entire industry. An education worth while. Come! We want to see you.

Motorcycle Manufacturers' Association

Office at 116 So. Michigan Ave., Chicago, Ill.

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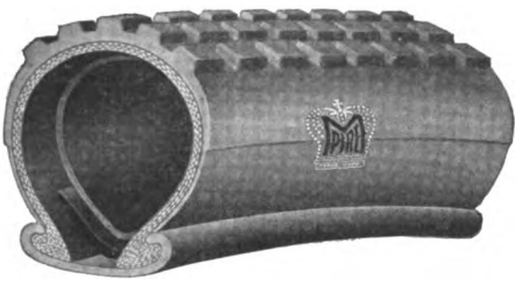
SAME OLD EMPIRE TIRE Only BETTER



LOOK AT THESE BUTTONS, BOYS

The New standard rim adopted by all the motorcycle manufacturers allowed of our changing the EMPIRE TIRE. We make it bigger and better. We have been trying it out now for several months and can say it is as good as our old type, and "that's going some."

ASK YOUR DEALER FOR EMPIRES

All the Manufacturers Will Give EMPIRE TIRE EQUIPMENT

INSIST ON EMPIRE TIRES

Come and see us at the Shows

EMPIRE TIRE COMPANY

Factories: Trenton, N. J.

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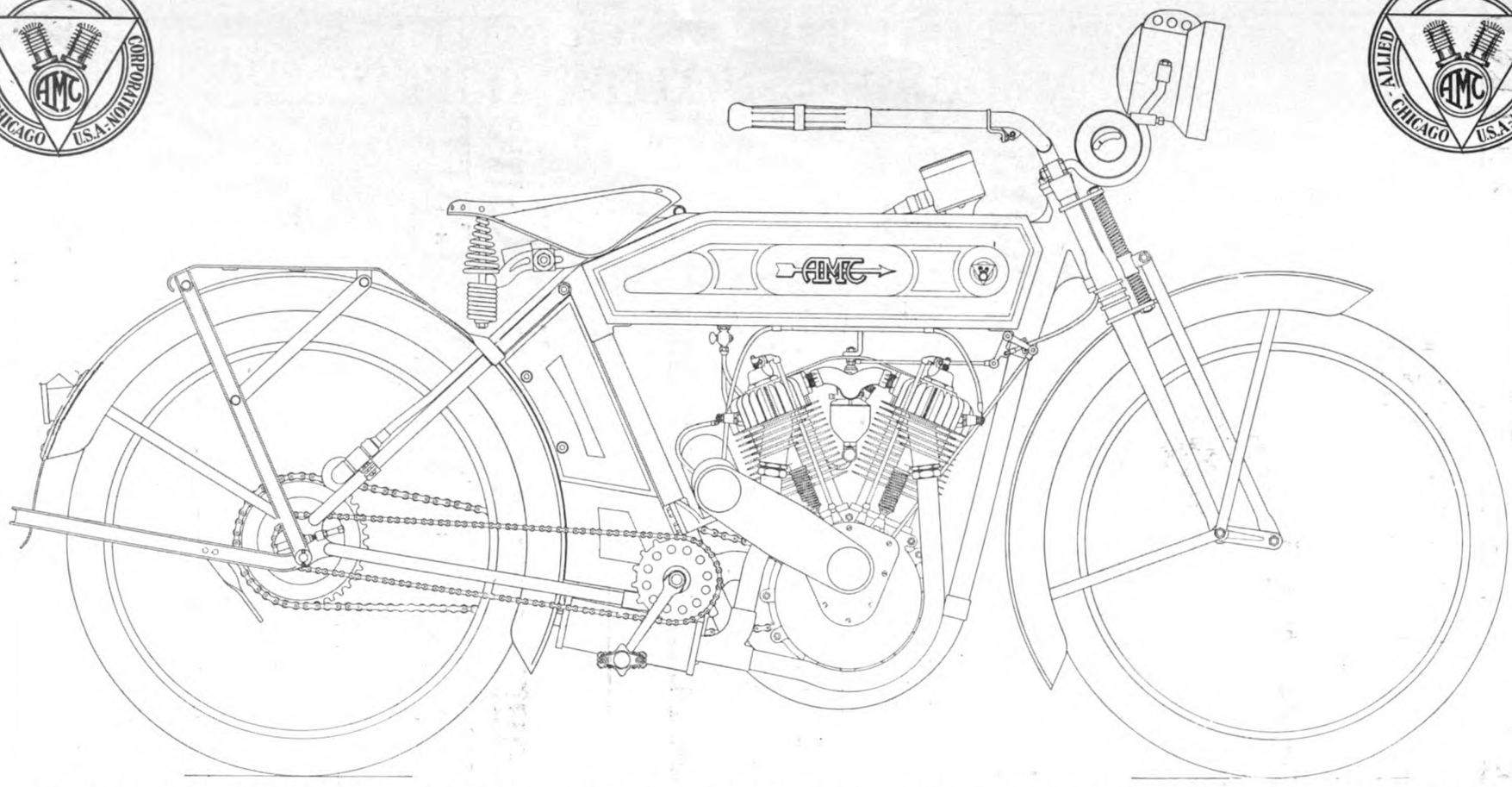

THE ORIGINAL AND ONLY FULLY EQUIPPED MOTORCYCLE

JUST WHAT LIVE AGENTS HAVE BEEN WAITING FOR

The A-M-C is the most profitable and easiest selling motorcycle offered

READ THESE SPECIFICATIONS—EVERY ONE A SELLING POINT

MOTORS—Twin type actual 7 H. P., single actual 4 H. P.—3 43/64 inches stroke and 3¼ inches bore on all models; piston displacement 30.50 inches.

CYLINDER—Racine special close grained grey iron one piece type.

BEARINGS—Connecting rod on twin, roller and large phosphor bronze on single models, piston bearing 2⅛x⅞ nickel steel against cast iron.

CARBURETER—Latest type Schebler or Heitger.

IGNITION—Standard make high tension magneto.

MUFFLER—Improvement over all previous types; dead quiet even with retarded spark—exhaust pipes lead into muffler without any off-sets, allowing the gas to exhaust without meeting with resistance.

HANDLE BARS—Made of heavy seamless tubing, rigidly braced, with just the right length and drop to give an easy riding position.

CONTROL—A-M-C positive double grip with concealed flexible cable—no levers to work loose.

TRANSMISSION—Choice of flat and V belt or noiseless chain.

FREE ENGINE CLUTCH—All models equipped with Eclipse latest type free engine clutch.

TANKS—Oil and gasoline tanks are made separately, affording no chance of contents becoming mixed. They are ingeniously made so as to fit together, covering the two top bars. Space is provided for the gas tube and speedometer shaft. Capacity 3 gal. gasoline, 2 quarts oil.

FRAME—Made of Shelby Cold Drawn Seamless tube, double bar loop type. The loop is one piece from the head to the seat post mast, making an unusually strong bracket for holding the motor; loop also protects the crank case from damage. Every joint and connection is made of Vanadium Steel. Top bars are brazed into the Vanadium Steel head; no joints occur at the point of stress, making the same doubly strong. Our perfect design gives an extremely low saddle position.

FORK—Effective trussed cushion spring, doing away with the objectionable rebound experienced with other forks.

THE SPRING SEAT POST—Is a real spring seat post; the rider's weight is held in suspension between the two springs so arranged as to be self-compensating, doing away entirely with any jerky effect and making it impossible to hit bottom.

SADDLES—Troxel and Persons.

HEIGHT OF SADDLE—From ground extremely low, approximately 28 inches.

TIRE CLEARANCE—Between the guards, 2 inches; a point to consider in country traveling.

LOCK WASHERS—Are placed on all bolts and nuts; no parts to rattle or become lost.

WHEEL BASE—56 inches, making it the easiest riding machine made.

DISTRIBUTION OF WEIGHT—We believe the A-M-C excels all others in this respect, which is due to our perfected frame construction.

SPEEDOMETER—Corbin—best that can be secured; concealed shaft made especially to fit the A-M-C.

HEAD LIGHT—Powerful 8 inch gas lamp with polished mangin mirror lens reflector.

GAS TANK—Standard Prest-O-Lite motorcycle tank.

BRACKET—Special A-M-C holds both lamp and tank, making them a complete unit.

TAIL LAMP—Specially made, burns gas, shows red to rear and reflects white for number.

HORN—Sireno gives either a piercing or melodious alarm.

PEDALS—Standard extra wide with rubber cushions.

CARRIER—Light but strong, combination carrier or tandem seat.

WEIGHT—Twin model approximately 215 lbs. Single model 185 lbs.

FINISH—The A-M-C is without doubt the finest finished motorcycle ever offered, enameled in cream white, paneled to harmonize; handle bars are finished with indestructible rubberoid.

When writing to advertisers, please mention MOTORCYCLE ILLUSTRATED.

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The A-M-C is Complete—No Extras to Buy

The agent who sells the A-M-C makes a real sale. He sells a machine complete in every single detail. All equipments are made for this machine and fit perfectly and are absolutely the best that can be secured. The same care and precision are executed in selecting the equipments for the A-M-C as there are in the material used in its construction.

The A-M-C is easier to sell not only on account of its graceful lines, fine finish and superior working qualities but the manner in which the equipments are selected, the way they are attached and the general refinement that they give the entire machine. If given an opportunity no motorcycle buyer will select a machine which is only partly equipped. Heretofore, the manufacturer has been satisfied to let the agent worry out the equipment troubles for himself.

In producing the A-M-C it has been our object not only to offer the best built motorcycle on the market but the one that would be the cleanest and easiest proposition for the agent to handle.

The agent handling the A-M-C can give his customer a machine with standard equipments of the very highest grade, specially selected and fitted with special brackets and devices which make them perfectly adapted to the A-M-C, for less money than what he can sell any standard machine for with such equipments as the rider might select of even inferior quality; the attachments for which would be so made as to come as near fitting as possible every motorcycle on the market but not fitting any certain machine in particular.

The A-M-C agent not only saves several hours' time which is usually wasted in putting on these equipments, which at the best never fit properly, but he also makes a greater profit than he possibly could were he to sell the equipments separately.

Furthermore, when an agent sells an A-M-C he has the satisfaction of selling a motorcycle complete with all its equipments.

A careful comparison of our prices and a little figuring will satisfy any wise agent that it is the machine for him to handle if he is actually in the business for profit.

The time is very near when no buyer will accept a machine that is not fully equipped. Why wait until your competitor gains this point of advantage? Be a leader and let the rest follow: We want every live agent to figure this fully equipped proposition out for himself.

You know what standard equipment costs and also what it sells for. So that you can easily verify every single claim we make the A-M-C equipment, as follows:

For your convenience, we have added the regular retail prices.

Standard Prest-O-Lite gas tank	$10.00
8 in. Gas Lamp, mangin lens mirror	5.00
Unit Type Tank & Lamp Bracket	2.50
Tail lamp	1.00
Imported Sireno Horn	2.50
Guaranteed Corbin Speedometer	15.00
Total	$36.00

Any agent who has ever placed equipments on a machine readily realizes just how much time it takes to put these equipments on. After adding the selling price of the equipment that we use to the selling price of any standard machine, you can see at a glance that you can offer your customer an A-M-C machine fully equipped for far less than what he can purchase a complete machine under any other conditions and when you get our agent's proposition, it will show you where the double profit is in it for you.

The A-M-C line consists of two models; a single cylinder 4 actual horse-power, magneto ignition, and a twin model, magneto ignition, 7 actual horse-power. Both models fully equipped even to the last detail. Each cylinder is 3¼ in. bore and 3 43-64 in. stroke. Piston displacement 61 cubic inches on the twin model and 30.50 cubic inches on the single cylinder model. All are equipped with the latest type Eclipse Free Engine and variable speed clutch pulley. Choice of either V belt or chain drive transmission is offered.

The A-M-C is a truly vanadium steel built machine. The head, hanger bracket, fork ends, seat post cluster, in fact, every connection on the A-M-C is made from vanadium steel; known the world over as being the strongest material for such purposes. Actual tests show that chrome vanadium steel has an elastic limit of 170,000 to 225,000 pounds per square inch with a tensile strength ranging from 180,000 to 225,000 pounds per square inch. Of course, this is after it has been heat treated. It is the material used by the largest and most prominent automobile manufacturers for parts that stand hard use and are subject to crystallizing.

The A-M-C motor is a marvel of simplicity. Piece for piece there are actually less parts in this motor than in any other. This not only means greater life, but also the absence of any possible chance for loss of power due to faulty adjustment. For instance, there are actually 50 per cent. fewer parts in the A-M-C gear box. A double cam forged from a single piece of steel operates both valves on the single and twin models. Thus, timing is an exceedingly simple process, and makes it impossible for the A-M-C engine to become out of time. Both inlet and exhaust valves are actuated by forged steel rocker arms which are designed so that there is a minimum of sliding friction. **The inlet valve is ingeniously designed.** More power has been lost in motorcycle engines due to faulty construction of this part than from any other source.

The valve cage admits gas around the entire circumference to the inlet valve, thus admitting a larger charge of gas quickly to the cylinder and thereby greatly increasing the power. The valve cage has a number of holes bored in the side so that the gas freely enters, no matter in what position the cage is screwed in the cylinder.

The spark plug is so situated that it is self-cleaning and eliminates the main source of trouble in ignition.

The A-M-C frictionless piston is a mighty big step in advanced motorcycle engineering skill. The A-M-C piston has three eccentric rings with 45 degree joints and five oil grooves which help to maintain compression. A floating piston pin is used, ⅞ in. in diameter, made from chrome nickel steel and specially hardened. The unusual feature is that the pin is fastened to the connecting rod instead of to the piston. This construction has many advantages.

It permits the piston to expand evenly and thus remain round instead of becoming oval, and makes it possible to operate the engine satisfactorily with less oil than in any other, as the piston is less likely to seize.

When the piston pin is fastened to the piston it has a tendency to become oval when hot as it is restrained in one direction by the pin.

Another good feature is that a larger bearing surface may be obtained in the piston than in the connecting rod. This insures long wear and smooth running and places a bearing at each end of the piston instead of in the center.

A spacer which is clamped to the connecting rod prevents the end of the piston pin coming in contact with the cylinder walls. This spacer is clamped by the same bolt which holds the connecting rod in place, and thus there is no possibility of becoming loose.

These are only a few features embodied in the A-M-C which will give you a fair idea of its perfect mechanical construction.

The motor is absolutely everything that can be desired and has a flexibility and persistent power that has to be seen before it is fully appreciated. The valves work positively and quietly which, together with the perfectly constructed muffler, makes a dead quiet machine. Smooth, quiet riding appeals to everyone who has ever experienced it. It is a much advertised feature generally, but one actually finds it only in the A-M-C. In the A-M-C motor one power impulse over-laps and picks up the previous impulses to such an extent that it produces an even and constant flow of power, not intermittent pushes. A hardly discernible purr expresses the flow of power in the A-M-C.

Ounce for ounce, we are fully convinced that the A-M-C will develop more power and speed than some having a rating of an additional horse-power. The scientific distribution of weight makes a smooth and perfect riding machine. **Distribution of weight** is a feature which is very seldom given any attention by the ordinary agent or rider as it is usually only noticeable to mechanical engineers who take the time to figure it out.

You will find most of the weight on the average motorcycle comes on the rear of the machine, giving it a tendency to skid easily, also adding to tire expense and actually taking at least an additional horse-power. We have designed our frame so that when the rider is in the saddle and even with an extra rider on the rear, the weight is evenly suspended in the proper proportions, making the machine not only easier to steer and handle but giving a certain flexibility and quick pick-up which must be experienced to be fully appreciated.

We want every live agent to have our proposition providing his territory is not already closed. If you want the best selling machine on the market, a machine which stays sold and will help you to sell others and show you the biggest profit, by all means get in communication with us at once. Territory is being closed up very quickly and a special delivery letter or telegram might enable you to secure this money-maker before your competitor. By all means, whatever you do, be sure to get our proposition, which is the most liberal offered.

MANUFACTURED BY

ALLIED MOTORS CORPORATION

Carroll Ave. and Union Park Place **CHICAGO, U. S. A.**

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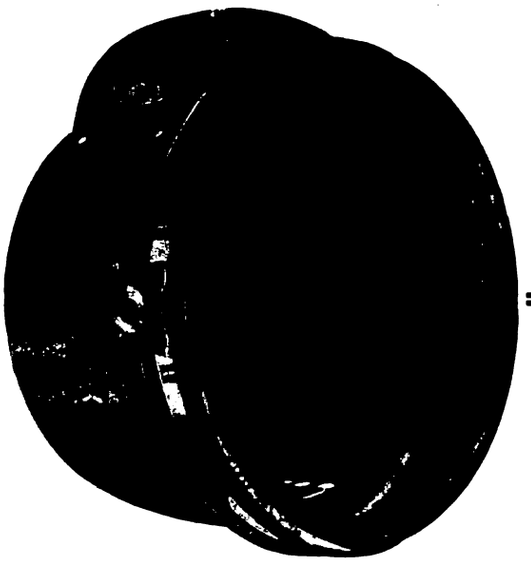

Old Reliable

Second Sensation of the Season

Another new high-grade motorcycle lamp, Old Reliable, at a price unheard of before in the history of the motorcycle business.

This lamp is being manufactured in same factory as the X-Ray.

Will be furnished in All Nickel-Black, Red, Gray, Blue or Orange with Nickel Trimmings, colors matching enamel on machines.

Sale of this lamp will be confined exclusively to jobbers, best proposition in the field today.

In addition to the X-Ray and Old Reliable, we have a pleasant surprise in store for everyone interested in the motorcycle business in the way of several new designs which will be shown at the Chicago Motorcycle Show. All jobbers should not close contracts until after the above show—we count on seeing you there.

Best and most attractive line of lamps on the market, read the specifications on the Old Reliable, as a sample, and be convinced.

Front measurement	**8¼"**
Body measurement	**6½"**
Genuine Mangin Lens	**6½"**

Absolutely the largest mirror reflector in a motorcycle lamp, filling entire body of lamp, insuring a greater amount of light than any lamp on the market.

Props soldered and riveted to body. Hood riveted to body. Body of lamp stamped out of one piece of heavy metal. Heavy hinge and catch thoroughly riveted. Mirror or reflector fastened in lamp with removable lugs. Adjustable focus. Don't forget the great light-giving qualities, this can only be effected by use of large mirror. Owing to our method of inserting mirror we have increased size materially without making lamp too large.

Don't forget to meet us at the Chicago Show.

Manufactured by

THE VICTOR AUTO PARTS CO.

CINCINNATI, OHIO

Sales Agents **FULTON McCUTCHAN CO.** **1146 Michigan Ave. CHICAGO, ILL.**

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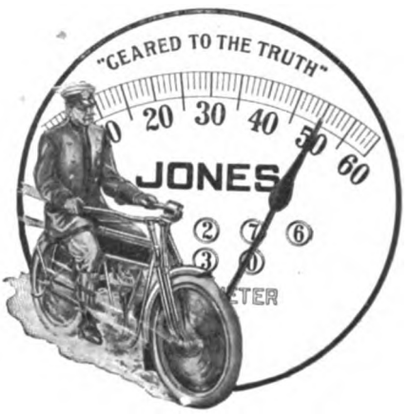
It Adds To The Pleasures Of Motorcycling To Know



HOW FAR you've travelled in an hour, a day or a year.

HOW FAST you're running at **all** times.

HOW MUCH it costs to operate your machine—how much for oil, gas and tires.

HOW TO TOUR with ease and pleasure. The distance from point to point—the proximity of the next town, etc.

HOW TO AVOID unwarranted arrest by the cop. If you **know** your speed, unwarranted arrest need not be feared.

All This And More With

JONES SPEEDOMETER

The accurate speedometer. The Winner of the Gold Medal. The Centrifugal Force instrument that is **always** right! Buy a JONES —add to the pleasures of motorcycling.

THE JONES SPEEDOMETER

MAIN OFFICE: BUSH TERMINAL, NEW YORK.

NEW YORK: Broadway & 76th St.
CHICAGO: 1430 Michigan Ave.
BOSTON: 109 Massachusetts Ave.
PHILADELPHIA: 1427 Vine St.
SAN FRANCISCO: 530 Golden Gate Ave.
BUFFALO: 20 Goodrich St.
LOS ANGELES: 1229 S. Olive St.
PORTLAND: 329 Ankeny St.
SEATTLE: 917 East Pike St.
DETROIT: 872 Woodward Ave.

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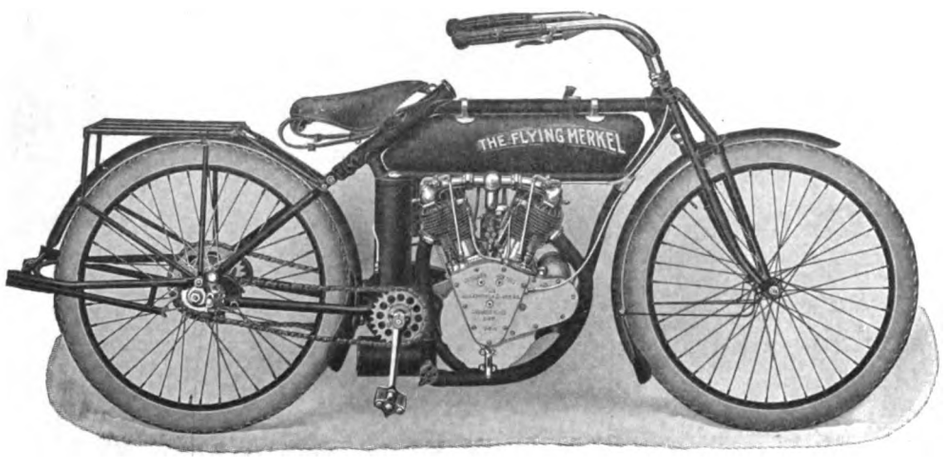
SPEED

HERE IT IS

THE FLYING MERKEL

The Prize Winning "Yellow Jacket" Model



The Only Self-Starting Two-Speed Motorcycle In the World

IN the trade papers of December we offered $100.00 in gold to the person suggesting the most suitable name for Model 45 and 75. The contest closed on December 15th. As evidence of the wonderful sensation these new models created, no less than 17,092 names were submitted before December 15th. Several thousand names came in after the contest closed but these of course could not be counted. After two weeks of careful study the judges decided upon the name "Yellow Jacket." As more than one person submitted the name "Yellow Jacket" we were compelled to divide the $100.00 proportionately. Accordingly the following persons will receive a check for $3.84 this week.

Chas. Anderson, No. 1063 Perry Ave., Chicago, Ill.
James J. Shea, Sidney, Ohio.
Chas. Reith, High Point, N. C.
Wm. J. Martin, Box 128, Brocton, N. Y.
A. F. Lattig, Payette, Idaho.
Maurice Fitzgerald, No. 86 Commercial St., Bridgeport, Conn.
R. S. Hickey, No. 198 Summer St., Paterson, N. J.
Russell A. Evans, c/o Cadillac Motor Car Co., Detroit, Mich.
E. A. Emmert, Publisher, Dallas Center Times, Dallas Center, Iowa.
N. C. Hildebrand, Butler Co., Eidenau, Pa.
J. C. Youngblood, Agt. Overland Car and Excelsior Motorcycle, Atwood, Kansas.
Roy H. Arthur, c/o Elk Motor Truck Co., Charleston, W. Va.
Geo. F. Devers, No. 1420 Blondeau St., Keokuk, Iowa.
Ernest Mobberly, No. 1313 Scott Ave., Canton, Ohio.
F. C. Dolder, St. Charles, Minn.
Harry C. Wise, Crete, Ind.
C. M. Shaw, Concordia, Kansas.
Rafe M. Lindsey, No. 148 E. 6th St., Anderson, Ind.
Lee Wolary, R. R. No. 1, Wilmington, Ohio.
Russell Hicks, R. F. D. No. 8, Santa Barbara, Cal.
Chas. W. Johnston, Delaware, Ont.
Francis Miller, No. 719 E. 4th St., Canton, Ohio.
W. B. Glasser, No. 780 Downey St., Denver, Colo.
Arthur B. Cookrum, Ontario, Ore.
Evart J. Deakins, Box 164, Reff, Okla.

One card containing the Prize winning name was received without the name and address of the sender. The check will be forwarded upon proper proof being sent.

SEE THE "YELLOW JACKET" AT THE NEW YORK SHOW. Our beautiful art catalog out this week. Send 2 cent stamp for copy.

The Miami Cycle & Mfg. Co.
300 HANOVER STREET
MIDDLETOWN, OHIO
MEMBER M.M.A.

POWER MIAMI COMFORT

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THE FLYING MERKEL

The 7-75 "Yellow Jacket" Model is the Big Sensation of The New York Show

SEE IT AT SPACE 718 GRAND CENTRAL PALACE

Three-fourths of our output is already sold. If you have not arranged for territory, write today

The Miami Cycle & Mfg. Co.
300 HANOVER STREET
MIDDLETOWN, OHIO
MEMBER M.M.A.

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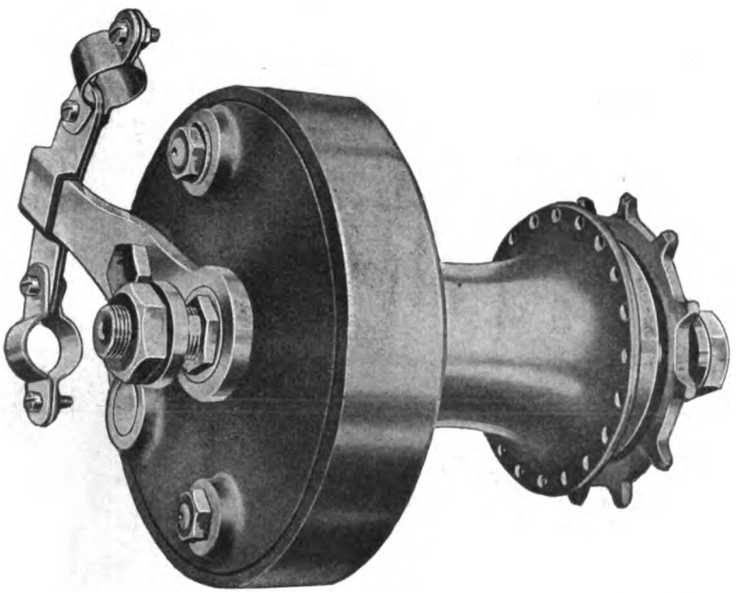
1913 New Departure Coaster

Strong Enough to



For Belt Drive Motorcycles.

¶ Every safety factor enjoyed by the automobilist is assured to the motorcyclist who uses the 1913 model of the **New Departure Motorcycle Coaster Brake.** It gives him absolute and instant control of his machine and so makes all roads safe.

¶ This brake is strong enough to hold an automobile—to easily stall the engine of the highest powered motorcycles and stop any machine within its length or less.

¶ In the development of this brake, automobile practice has been followed. In design it is the internal expanding brake shoe type that has been successfully used in automobiles of all load ratings for years.

¶ A back pedalling pressure of seventy-five pounds at the pedals will exert a retarding force in the brake drum of a ton and a half—more than sufficient to quickly stop a motorcycle of twice the horse power of any now on the market.

¶ All of the wearing parts that are called upon to withstand the severe stresses of service are made of best alloy

Expanding Brake Shoes Operated by Cam Mechanism.

New Departures are always Guaranteed

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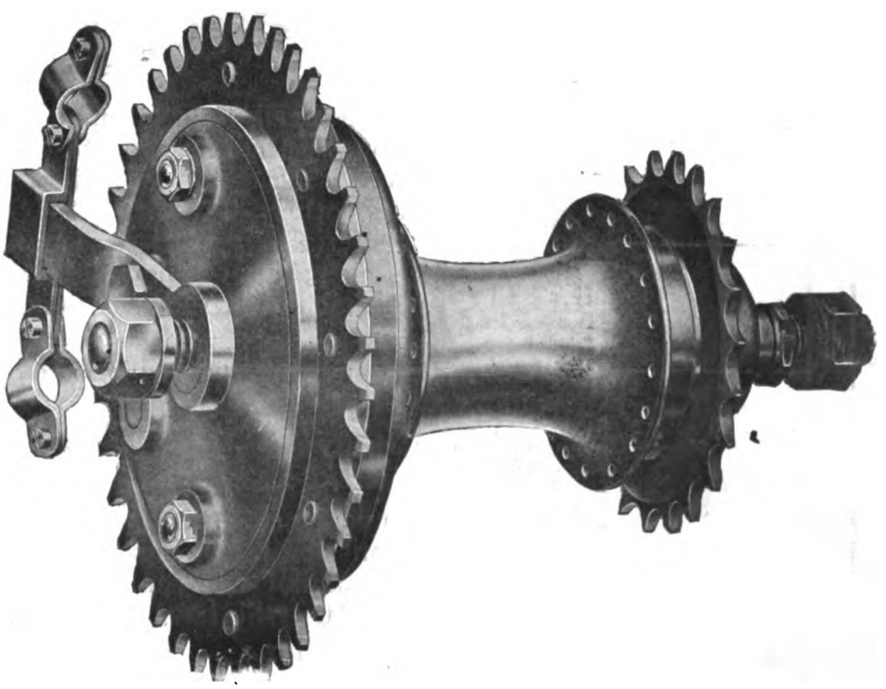
Brake for Motorcycles

Hold An Automobile!

steel, specially treated. The ball bearings are heavier than usually found in front wheels of many automobiles. The axles are unusually large, and so throughout the entire construction maximum qualities of strength, durability, toughness and resiliency have been secured.

¶ A glance at the mechanical principle of operation will convince that the brake cannot fail, cannot lock or bind. In fact, every test has demonstrated this brake to be ideal and almost perfect.



For Chain Drive Motorcycles.

¶ Motorcycle manufacturers, dealers and riders are invited to call at the New Departure booth, space No. 204, Balcony, Madison Square Garden Automobile Show, January 11th to 25th, examine this brake and see it demonstrated.

WRITE FOR LITERATURE TODAY.

The New Departure Mfg. Co., Bristol, Conn.

COASTER BRAKE LICENSORS

New Departures are always Guaranteed

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MEET ME FACE TO FACE

I want to have the pleasure of meeting YOU personally at the show. I will be at SPACE NO. 538, MADISON SQUARE GARDEN, with my complete line of

NATHAN

Motorcycle Fabric Supplies. I will there convince you, by the merciless test of comparison, that my line is head and shoulders higher in quality than any other. I want to SHOW you the high-class materials, perfect-workmanship and far-sighted anticipation of the rider's needs that are incorporated in every inch of NATHAN goods.

Also, I have a distinct surprise to spring on you—a VERY pleasant one and one that will make you not regret having paid me a visit.

No. 50

No. 55

No. 40

No. 555

FREE TICKETS FOR DEALERS

For your convenience, I have purchased a limited number of tickets of admission to the show. If you want one, write me without delay, and I will send one to you with my compliments, but you will have to hurry!

With best wishes for a big and prosperous 1913.

Edwin B. Nathan

I Have Not Forgotten the Side Car Owners

The Nathan Side Car Storm Apron fills a long-felt want. With it the occupant of the side car can enjoy the most severe weather. It is easily adjusted and has all the necessary means for fastening. Write at once for prices.

BEWARE OF IMITATIONS

NATHAN goods are for sale by all live and successful dealers in the United States and Canada, because they make an honest profit and above all, they are building up a following of riders that come back for more NATHAN goods. Free catalog and prices sent on request. If your dealer cannot supply you, order direct.

NATHAN NOVELTY MFG. CO., 84 to 90a Reade St., N.Y. City

No. 77

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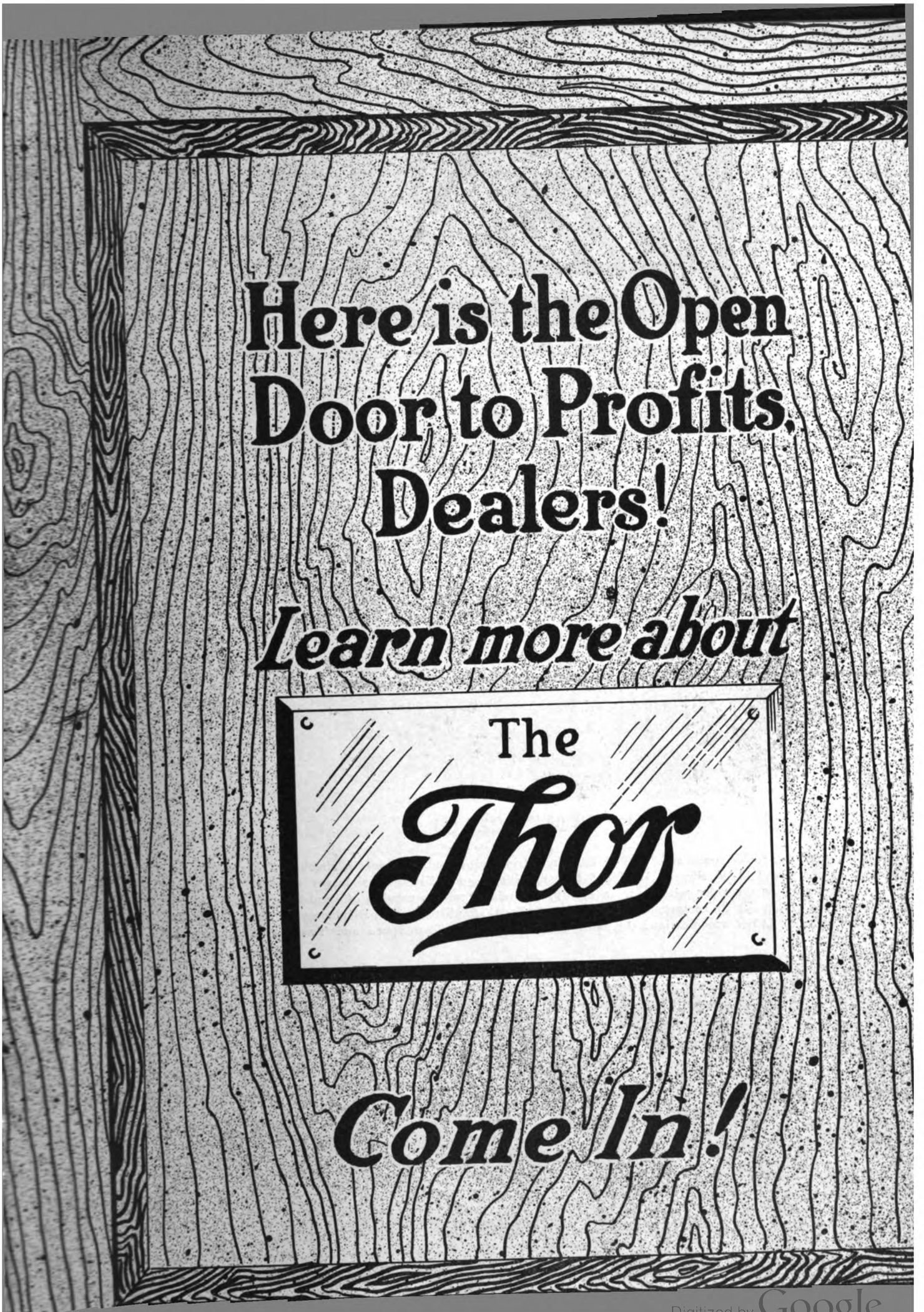

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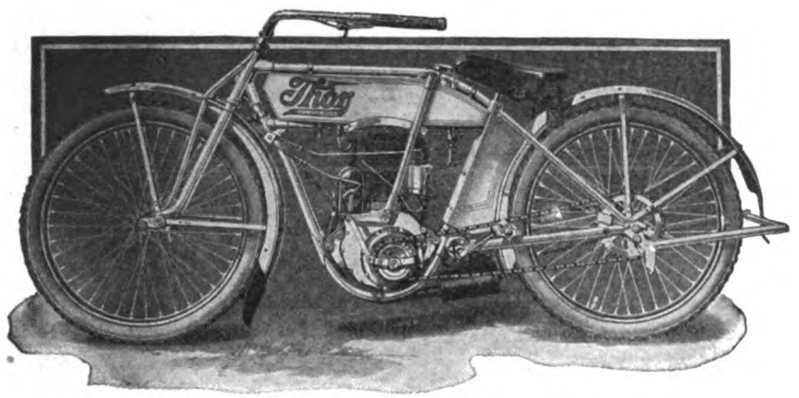
Thor

We are the originators of Chain Drive Motorcycles

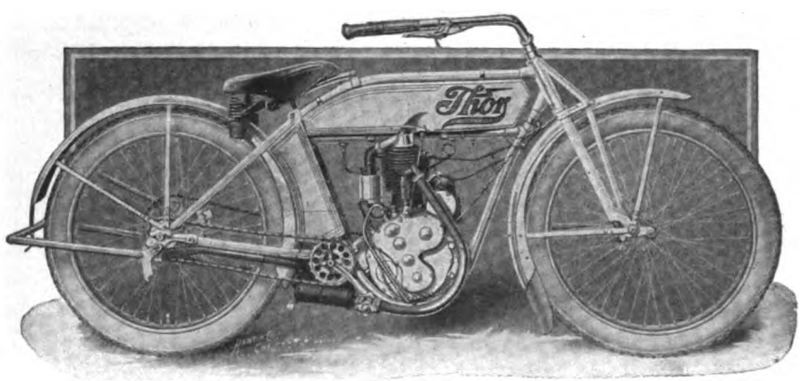
The name THOR has always been a synonym for motorcycle perfection. For clean cut beauty of appearance, for mechanical accuracy of makeup, for matchless performance, whether on the road or on the track, THOR motorcycles hold a distinct place in the estimation of "those who know."

It is our sincere opinion, corroborated by the leading engineers in America, that our 4 h. p. single is the fastest single cylinder ever made. The reason is not hard to find. Note its specifications: Bore, 3.25; Stroke, 3.60; Displacement, 30.50 cubic inches. Roller bearing connecting rods; mechanical overhead intake valves with THOR ball and socket joints; Carbureter, Thor improved twin air adjustment and butterfly valve; Bosch Armored Magneto; Thor undergeared internal gear direct chain drive; Thor improved ball bearing free engine clutch; wheel base 58 inches; control, Thor improved double grip, positively perfect at all times. Motor is mechanically oiled with the new Thor perfected force feed, oiling crank case direct. Two Speed and Two Speed Control, $40 extra.



Model "13-M" $225.00

On muddy, rutty, sandy, rocky roads and "stiff" hills, where tremendous pulling power is absolutely essential at slow speeds, that's where our model 13-W. shines. Its Big 5 Motor, with large radiating fins, larger cylinder and exhaust chamber, is just the thing for the rider who wants a sturdy, dependable motor, capable of furnishing all the speed he needs, but distinguished chiefly for its remarkable pulling power. Bore, 3.57; Stroke, 3.80; Displacement, 38½ cubic inches. Roller bearing throughout. Other specifications the same as Model 13 M. Two Speed and Two Speed Control, $40 extra.



Model "13-W" $240.00

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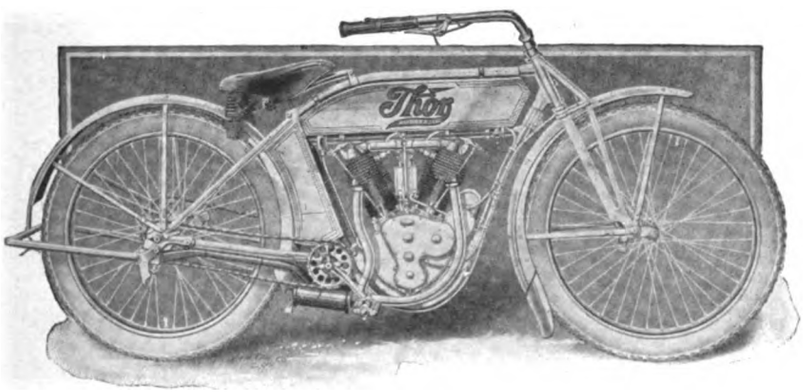
Thor

We are the originators of Chain Drive Motorcycles

Attention is called to the lithe, efficient appearance of our Model 13-U. Note the absolute absence of superfluous parts. The Thor 7 h. p. Twin is a handsome machine. It is a graceful machine. It is a machine that is easily handled. BUT—most important of all, it is positively the FASTEST STOCK TWIN IN THE WORLD, BAR NONE. The improved THOR clutch, the most reliable clutch made, forms an important feature of this "godlike" machine. In the THOR Twin the rider's cherished conception of what a motorcycle SHOULD BE is achieved in every respect. Power and speed, combined with durability and comfort make the THOR Twin a truly perfect machine.



Model "13-U" $290.00

SPECIFICATIONS: 7 h. p. Motor with Bore, 3.25; Stroke, 3.60; Displacement, 61 cubic inches. Cylinders are set upright 50 degrees apart. Motor, roller bearing throughout. Standard tire equipment, 29x2¾, otherwise the same improvements throughout as the 4 h. p. Two Speed and Two Speed Control, $40 extra.

DEALERS—It will be worth your while to investigate our proposition. Our tremendous organization, our large corps of experienced engineers, our practically limitless manufacturing facilities—these are at your disposal. Fill out the blank underneath and send it to us—preferably special delivery. Or better still, wire. There is not much time to waste.

AURORA AUTOMATIC MACHINERY CO.

I am a dealer and want to learn more about your proposition. Let me hear from you at once.

NAME .....

ADDRESS .....

GENERAL OFFICES:
THOR BUILDING
1317 Michigan Avenue
CHICAGO, ILL.

Works: AURORA, ILL.

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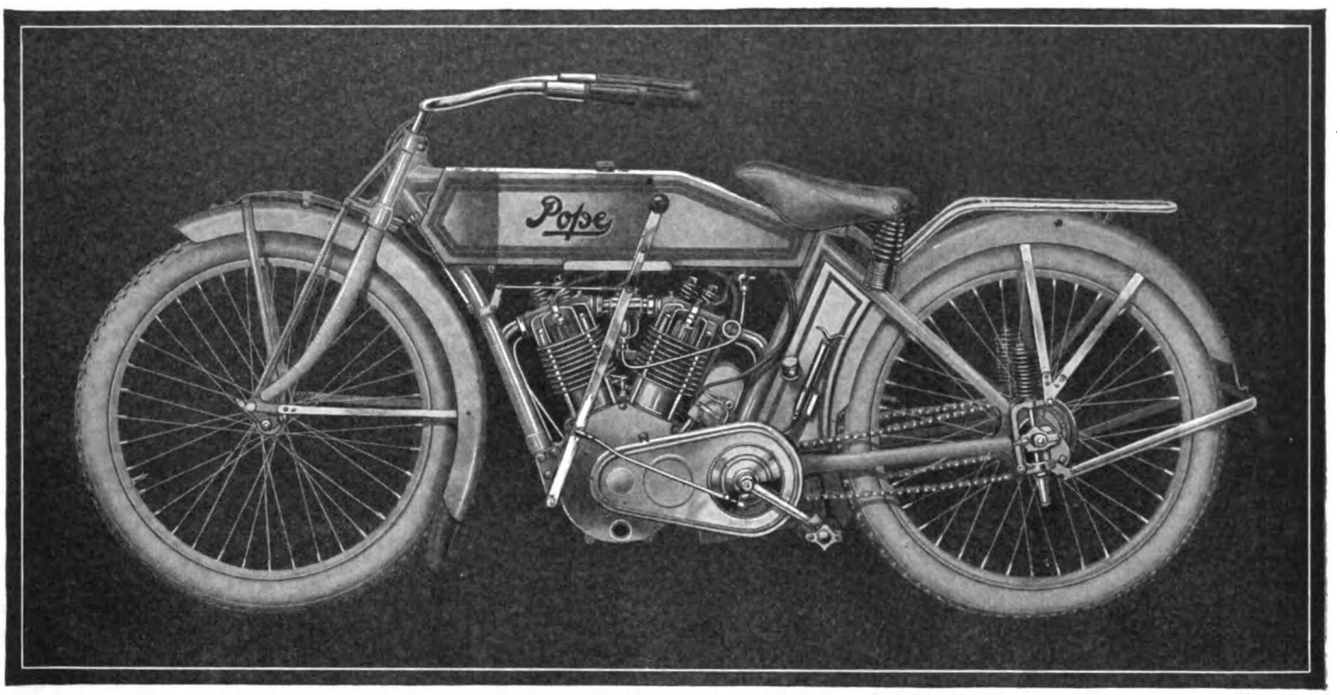
THE POPE "TWIN"

PATENT REAR SPRING SUSPENSION, POPE SPRING FORK, OVERHEAD VALVES, 7-8 H. P., SHAFT DRIVEN MAGNETO, IMPROVED MECHANICAL OILER - - $250.00



56½ inch Wheelbase—28 inch Wheels fitted with 3 inch tires.

A Wonderfully Fine Machine

Comfortable—Speedy—Powerful—Quiet—Handsome

THE PATENTED REAR SPRING SUSPENSION

alone would make this "TWIN" a marked machine. We have solved the problem of producing a really smooth riding motorcycle by means of a helical spring device which absorbs shocks, makes for greater comfort and safety and lessens the wear and tear on wheels and tires. The normal position of this spring is shown in the above cut. When the rider's weight causes the springs to expand, the load is suspended. As the wheel strikes an obstacle the rear axle, bearing-blocks, and guide-rods, rise easily, bringing the helical springs into expansive action and absorbing the shock.

FULL DETAILS OF REAR SPRING SUSPENSION AND OTHER FEATURES IN 1913 POPE CATALOG READY JANUARY 10th.

New Model M 5 H. P. "Single", Chain Drive, Rear Spring Suspension, Overhead Valves, $215

Full Pope Line for 1913—4 Models—Model L "Twin", $250; Model M, 5 H. P., Chain Drive, $215; Model K, 4 H. P., Belt Drive, $200; Model H, Lightweight, $165.

SEE THE POPE LINE AT THE NEW YORK AND CHICAGO SHOWS

THE POPE MANUFACTURING CO. - Hartford, Conn.

Pacific Coast Distributors:

F. P. Keenan Co., Portland, Ore., Northwest.

Kimball-Upson Co., Sacramento, Northern California and Nevada.

C. L. Smith, Los Angeles, Southern California.

When writing to advertisers, please mention MOTORCYCLE ILLUSTRATED.

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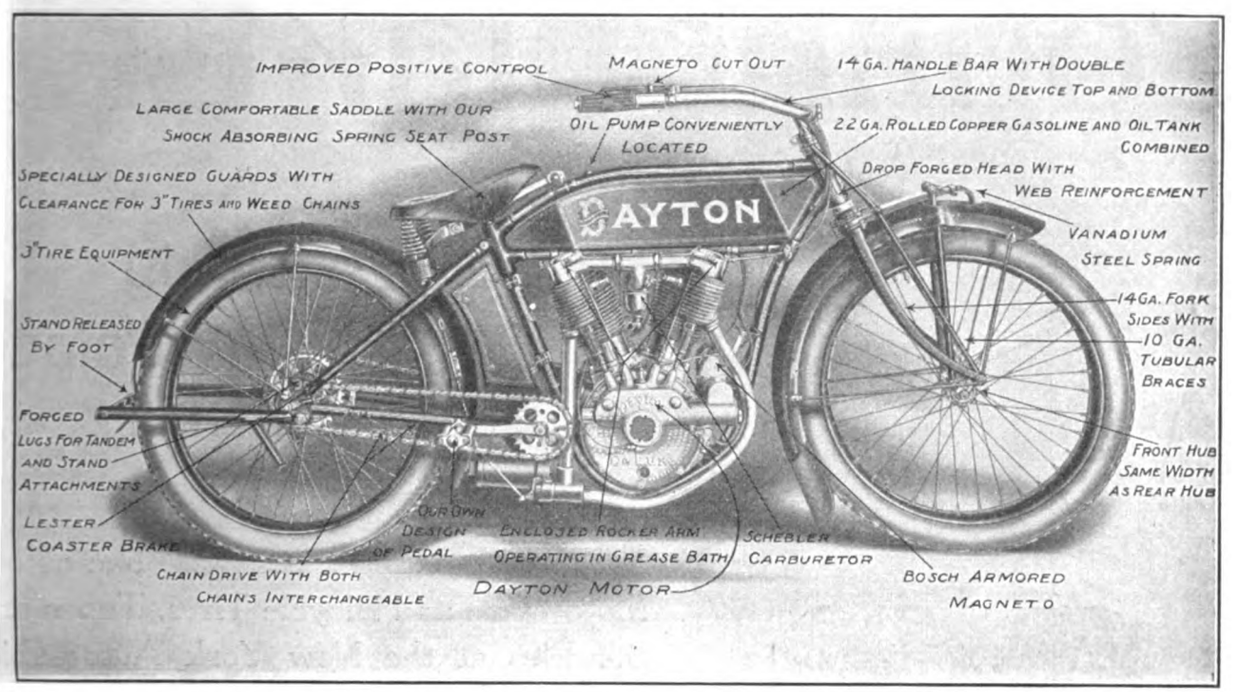
DAYTON



1913

Will It Bring Motorcycling Joy or Motorcycling Dissatisfaction?

As a Motorcycle Rider you will either get the full value from your machine, countless pleasures and complete contentment, or a downright wish that you had never purchased your machine.

BUT

you can have complete satisfaction. You can learn what a joy motorcycling really is by choosing a DAYTON. No other machine matches the DAYTON for beauty, power, service and economy.

Write us today for our catalog and name of nearest Dealer. Now is the time to decide what 1913 is to be!

NOTE TO DEALER:

Do you want to be the "nearest dealer"? The first step toward the Dayton agency and a successful year is to get our catalog and agency proposition.

Get in touch with us today. Use the coupon.

THE DAVIS SEWING MACHINE CO.

DAYTON, OHIO

(MI)

DAVIS SEWING MACHINE CO., DAYTON, OHIO.

I am a motorcycle dealer and interested in your DAYTON proposition. Send me particulars.

Dealer's Name .....

Street Address .....

City .....State .....

DAYTON

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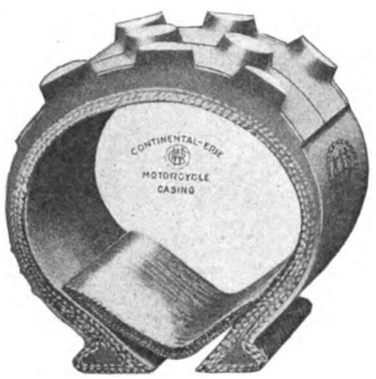
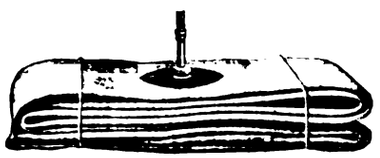
Continental-Erie

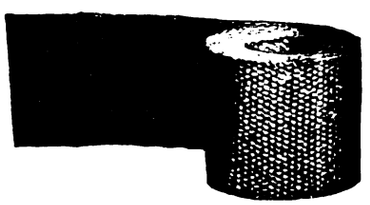


Space No. 309
Grand Central Palace
Jan. 11th—18th



Continental-Erie Motorcycle Tubes

Continental-Erie Motorcycle Blow-Out Patches



Woven Steel Reinforced Grip
Rubber cut away to show construction.

We will exhibit a complete line of our Motorcycle and Bicycle Tires, Tubes and Sundries at the New York Automobile Show, from January 11th to the 18th, at Space No. 309, Grand Central Palace.

We will cordially welcome all Manufacturers, Jobbers and Dealers who visit our space.

Mr. Dealer: If you visit the New York Show, be sure and visit our space and look over our line of Motorcycle Tires and Sundries. If you will present your business card and register at our space, we will present you with a roll of our Non-Slip-Lag, or a pair of our new Woven Steel Reinforced Motorcycle Grips.

CONTINENTAL RUBBER WORKS
ERIE, PA.

NEW YORK BRANCH:
35 Murray Street

CLEVELAND BRANCH:
1551 Columbus Road, N. W.

CHICAGO BRANCH:
180 N. Market Street

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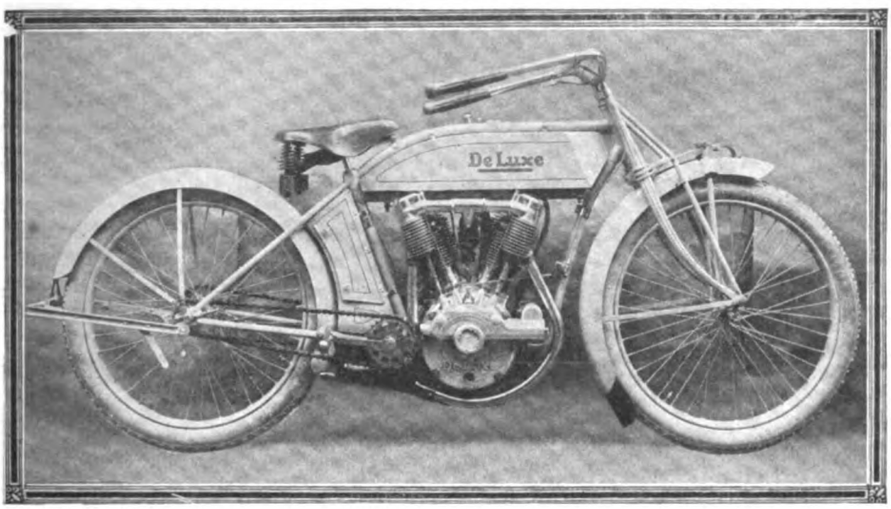
SOME REASONS WHY

7 H. P.
$275.00



9 H. P.
$285.00

"Built for the Road by Men Who Know."

DeLuxe Motorcycles

Twins Only for 1913

IT is natural for every manufacturer to claim that his motorcycle is the best; but the up-to-date motorcyclist, particularly the experienced rider looking for his second or third machine, MUST BE SHOWN.

We therefore offer the following points of De Luxe superiority for critical consideration.

THE DE LUXE MOTOR

The real fundamental element of any motorcycle is the power plant, and the De Luxe motor is so far beyond any other motorcycle engine in every point in motorcycling that that alone puts the DeLuxe in a class far above the rest.

The De Luxe motor is designed right by experienced engineers and built right in one of the most completely equipped plants in the country, by selected mechanics who know and appreciate the necessity of absolute accuracy and perfection of workmanship.

The predominant features of this motor are the single horizontal cam-shaft, which operates both the exhaust and intake valves, and drives the magneto, thereby positively assuring absolute accuracy of timing, both of valves and ignition.

The De Luxe is the only motor ever built with overhead mechanically operated inlet valves, all working parts of which are inclosed and run in oil. Thus, it naturally follows that De Luxe is silent.

The main shaft runs on the finest imported annular ball bearings. The connecting rod bearings are the roller type and extra large, thereby assuring a practically frictionless motor. The fly wheels are large and perfectly balanced, thereby eliminating vibration and allowing an extraordinary high compression. The total of all this is a motor of maximum power, minimum parts, and one that is absolutely silent and frictionless.

FRAME AND FORK CONSTRUCTION

The De Luxe frame has been designed with the utmost care and the lines and re-inforcements are the result of scientific calculation. The fork is the now familiar trussed type with the familiar cradle spring. The main fork sides extend from the hub to the handle bar, with a two-point connection at the top.

The fork stem proper runs from the forged fork crown to the forged clamp that embraces the top of this stem and the fork sides. Thus the centre fork stem acts really as a pivotal member and all the load is carried by the fork sides.

There are, however, no unnecessary frills or freak schemes, which simply serve to complicate and increase the cost of a machine, without in any way improving it mechanically.

These are only a few points. The machine is built equally well throughout, and no motorcyclist can afford to buy his 1913 motor—and no dealer can afford to prepare for his 1913 business, without first carefully inspecting the De Luxe and De Luxe selling policy.

WRITE TODAY FOR ADVANCE CATALOGUE.

EXCELSIOR CYCLE CO.

DISTRIBUTOR FOR CALIFORNIA
EDWIN F. MERRY, San Francisco and Los Angeles

166-168 North Sangamon St., Chicago, Ill.

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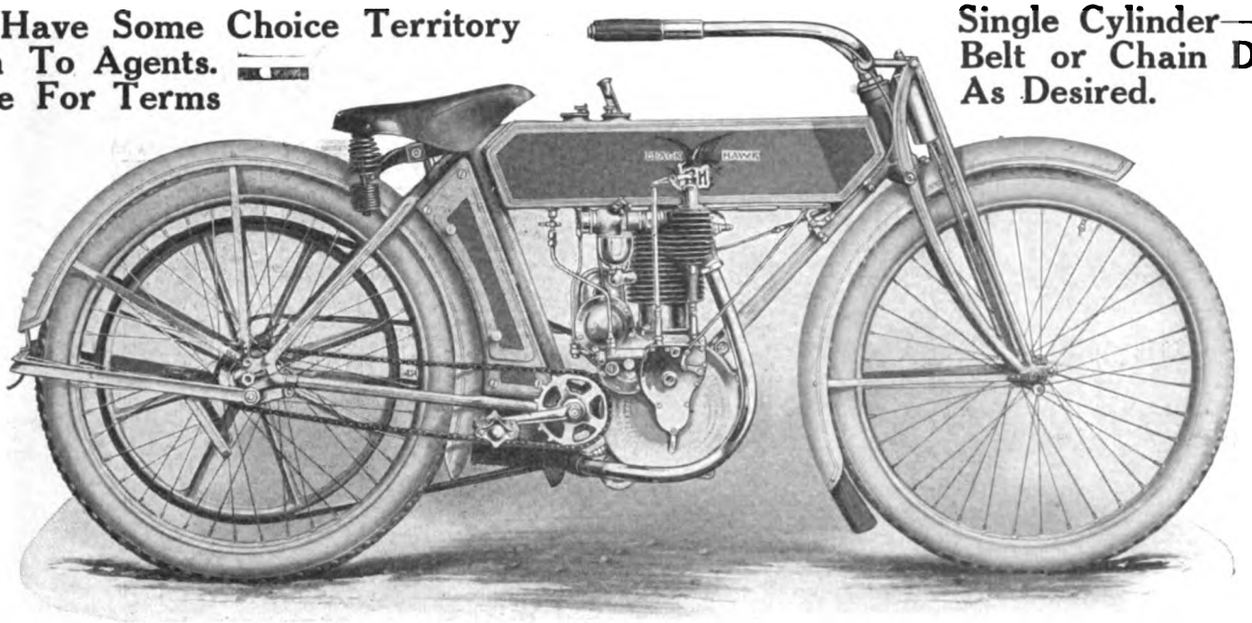
We Have Some Choice Territory Open To Agents. Write For Terms

Single Cylinder—Belt or Chain Drive As Desired.



"BLACK HAWK"

For 1913—Now Ready

Here at last is the one motorcycle that doesn't expect to win approval by excelling in any one particular, but it combines so many advantages and superiorities that competition cannot rank with it. The mistakes and weaknesses of other motorcycles have been studied in the development of the "Black Hawk." All the good points have been multiplied in this motorcycle, all the impracticable, trouble-causing features have been overcome and eliminated.

Without A Fault or Undesirable Feature

This is no exaggerated statement. Our designer, who has had years of experience in building motorcycles, has seen the weaknesses in construction of various makes and has built for us a machine which is the embodiment of his genius and experience—a motorcycle without a fault or flaw anywhere.

The buyer of a Black Hawk Motorcycle will find little occasion to purchase another for a long time to come, as this motorcycle will continue to give good service, year after year, for an indefinite time.

There is a certain element of satisfaction in owning a motorcycle that will give the service that the "Black Hawk" will give—especially when it backs up its service with aristocratic appearance, ample power, simple, reliable mechanism and easy-riding qualities, which makes it the ideal motorcycle for touring, for speeding—for daily use, for week-end trips—for any and every purpose.

These and other points are all set forth in a handsomely printed booklet which we send free on request. Write for it today.

To Riders:

If you are thinking about buying a motorcycle, you will make no mistake going to a *"Black Hawk"* dealer.

First, because the dealer handling the *"Black Hawk"* has a motorcycle that he can sell with the guarantee that it will give you *perfect satisfaction always.*

Second, because you will actually receive *more real* motorcycle value out of the *"Black Hawk"* than can be obtained from any other machine.

No matter how you look at it—for *service*, for *mechanical perfection*, for *handsome lines* and *finish*—the *"Black Hawk"* has no real competition when it comes to delivering the goods, and you owe it to yourself to investigate our claims before putting your good money into any motorcycle, regardless of make and price.

If you will write us, we will send you a handsome booklet which will give you a more complete idea of *"Black Hawk"* motorcycles—their absolute *quietness in operation*, their *unsurpassed riding qualities* and *their perfect control at all times.*

Black Hawk Motor Company

Dept. A **Rock Island, Ill.**

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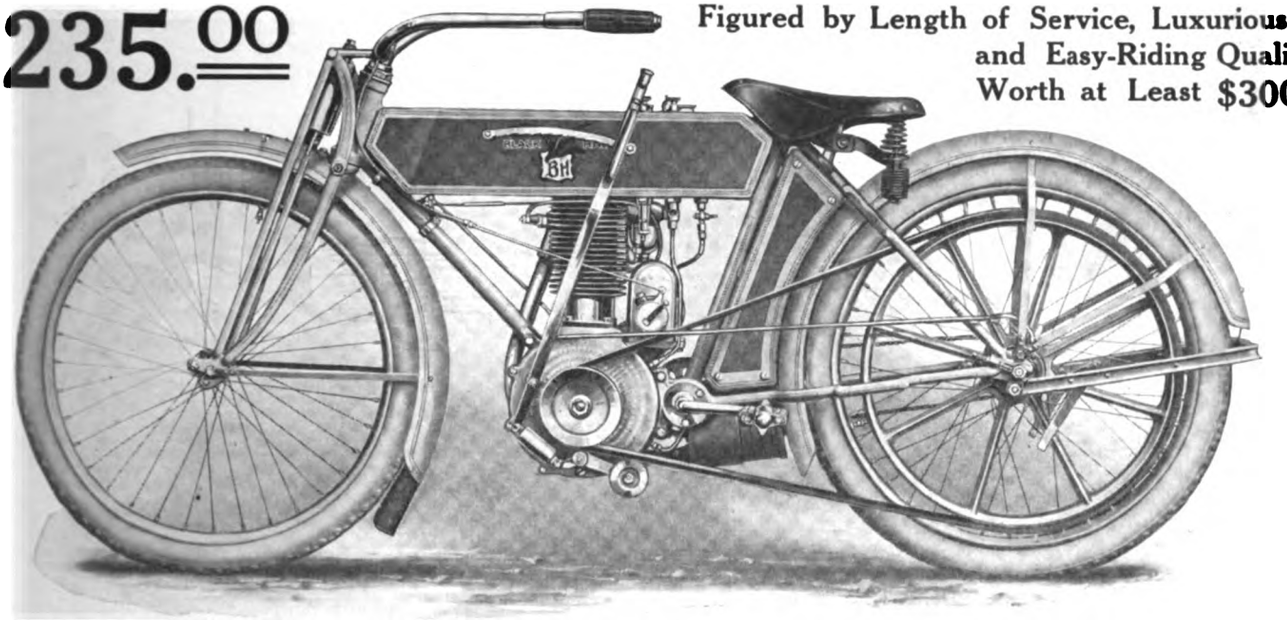
$235.00

Figured by Length of Service, Luxuriousness and Easy-Riding Qualities. Worth at Least $300.00



IN presenting the Black Hawk Motorcycle it gives us a great deal of satisfaction to announce that we know for a certainty that we have reached the point in constructing motorcycles where no one can produce anything better even at twice the price.

Read the points of superiority on this page. If these features count for anything—and they surely do—then the **"Black Hawk"** has a perfect right to call itself the **best motorcycle** and the best motorcycle is the one you want.

You can learn more about the **"Black Hawk"** from a handsome book we send free to all those interested.

A BRIEF OUTLINE of the "BLACK HAWK"

The points of advantage in the **"BLACK HAWK"** that are of particular interest to riders are as follows:

APPEARANCE. The Black Hawk Motorcycle is graceful in contour and trim in every detail—and built so without sacrificing stanchness or easy-riding qualities.

CLEANLINESS. It is free from all pockets and corners which collect and retain dirt. Can be quickly and easily made clean and kept so without trouble.

SIMPLICITY AND ACCESSIBILITY. The entire mechanism of the "Black Hawk" is greatly simplified, which adds to its efficiency and reliability. Any part can be removed and replaced with the greatest facility.

SADDLE POSITION. The Black Hawk saddle position is very low, so the rider can easily place both feet flat on the ground, which is most desirable if it can be obtained without cramped leg position. We have corrected the objections by placing the pedals as far forward as possible, permitting saddle to be well ahead of the rear axle and still comfortable. The forward position of feet affords ample leg room. The position of saddle is ideal from standpoint of easy riding and handling of the machine, especially on rough or sandy road.

ROAD CLEARANCE. Ample room between bottom of engine and the road gives us a great advantage over many machines, especially those of the loop frame construction, as on such machines the lower frame bar supporting the engine is very much nearer the ground and liable to suffer injury when running over rocky, hilly roads.

QUIETNESS. This feature, of course, is not apparent, but the quietness of the "Black Hawk," due to the motor construction and muffler, is most remarkable.

MOTOR DETAILS

CRANK CASE. Oil tight joints; smooth, clean, easily accessible.

POWER. Motor develops over 6 h. p. on brake test, which is considerably more than claimed for any other motor of this size and type.

RELIABILITY. Fewer working parts and design give assurance of absolute reliability under any and all conditions.

FLEXIBILITY. That we here again excel is evidenced by the fact that the motor will develop road speed of from 50 to 60 miles per hour—yet can be throttled down to 4 miles per hour.

PERFECT COOLING CYLINDERS. The cylinder is designed to afford the most perfect radiation, so it stays cool and maintains the high efficiency of motor always.

LIGHT PISTONS. The special construction of pistons and use of concentric rings is such as to permit of much lighter wall than ordinarily. As lightness is a very important feature, the value of this form of construction can be easily seen and appreciated.

FLY WHEELS. Accurately balanced with weight in rims, so that it gives the machine good hill-climbing powers.

CRANK SHAFT. Carefully hardened and ground—much larger than in average engine of same size—and run in highest grade of bronze bearing metal, which is the most satisfactory bearing in this place.

VALVES. Mechanically operated type, easy to remove when occasion requires.

CAM ACTION. Cams for both valves, cam shaft and cam gear are all made in one piece from steel drop forging, making it impossible for cams or gears to get loose and destroy the timing.

IDLER. We have made a great improvement in the neatness of design and efficiency of the Idler, all bearings being provided with balls. Also all places for adjustment have been taken care of so the Idler pulley cannot get out of line with the belt.

CLUTCH. Located on the inside of the rear hub out of the way and out of sight. Thoroughly protected, has extremely large friction area, is very flexible and durable—being of multiple steel disc type.

BRAKES. Also of multiple steel disc type. Absolutely reliable, easy of operation. Machine can be checked up easy, or wheel locked in emergency if desirable.

MUFFLER. Very efficient. On ordinary speed there is hardly any sound. Only about two per cent. loss of power through its use against 15 per cent. in ordinary type.

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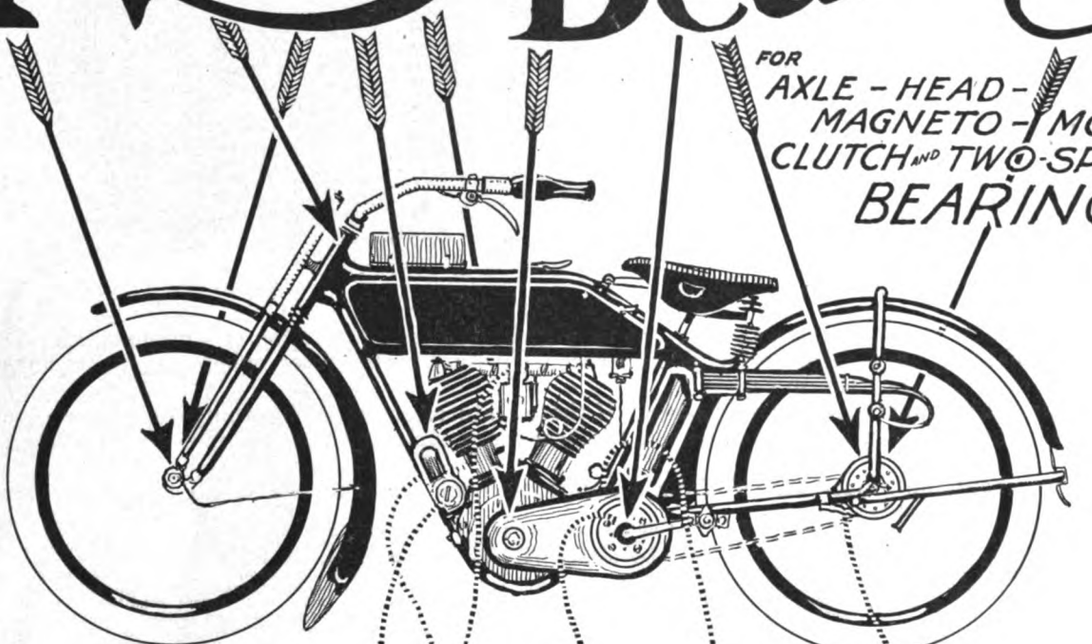

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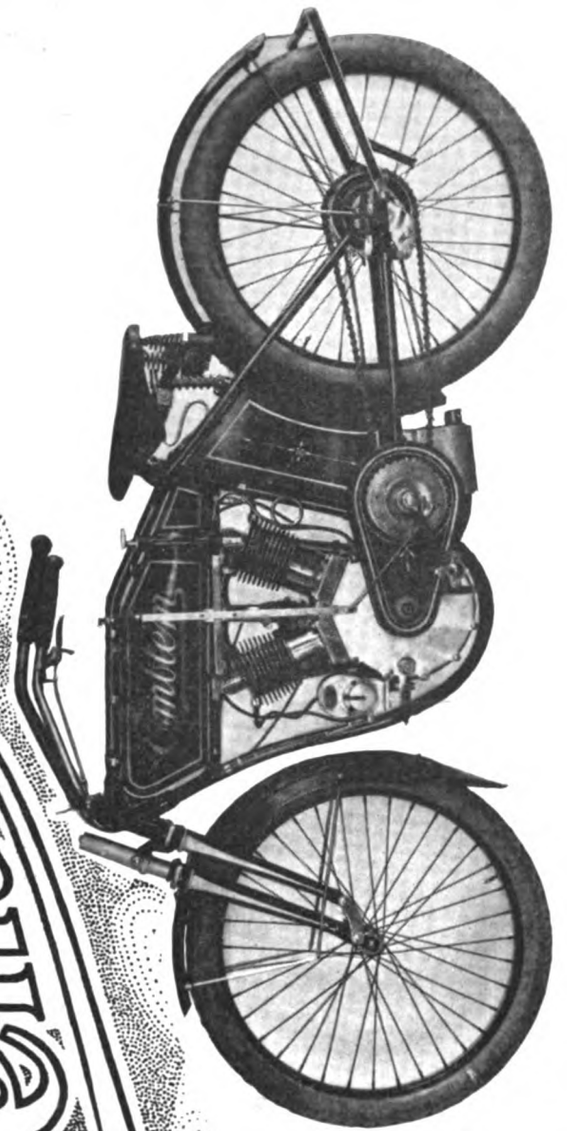

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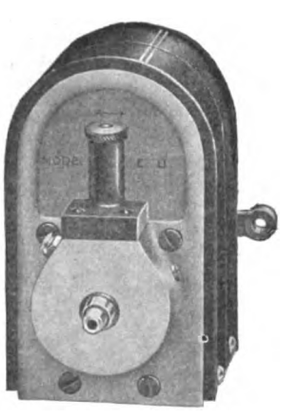

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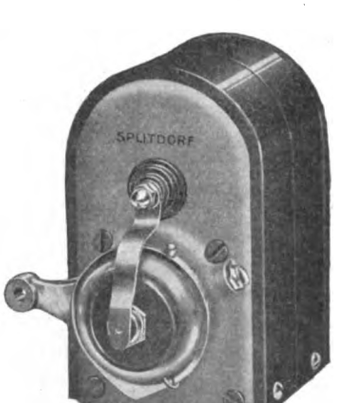

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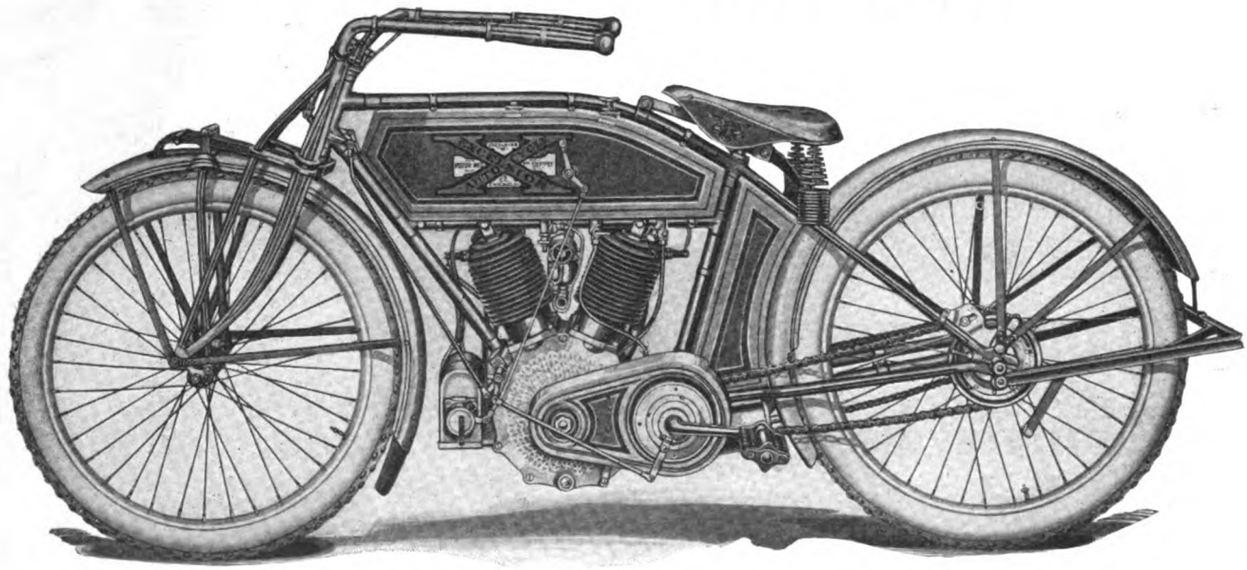

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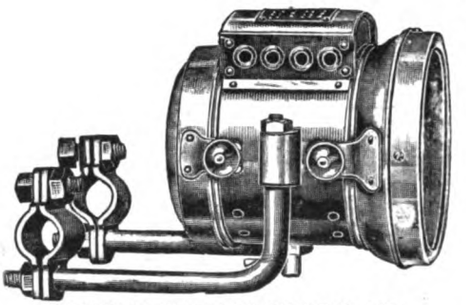

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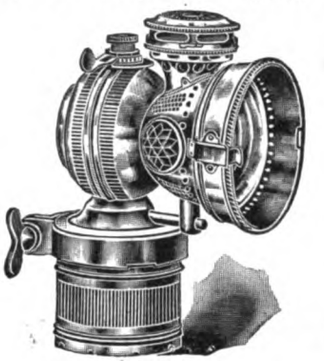

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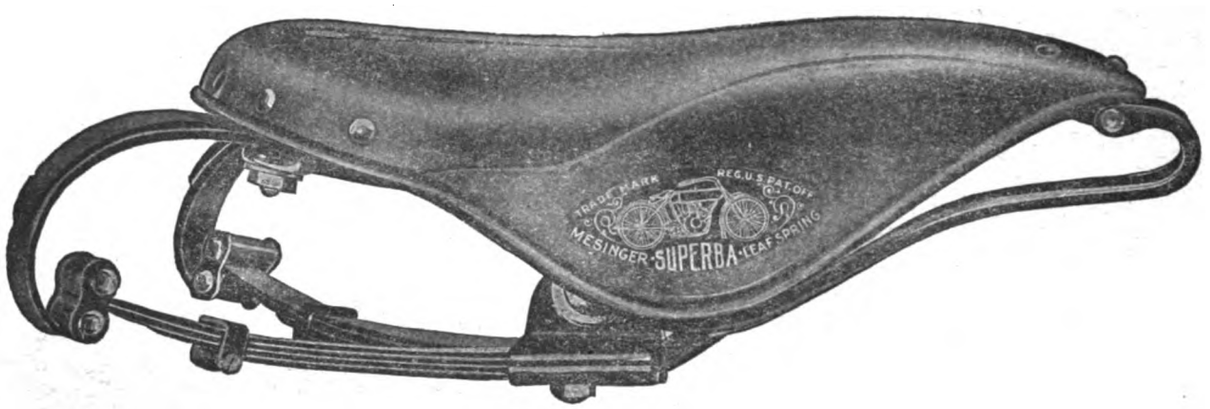

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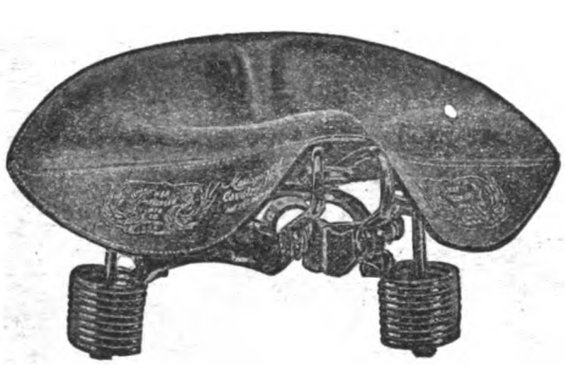

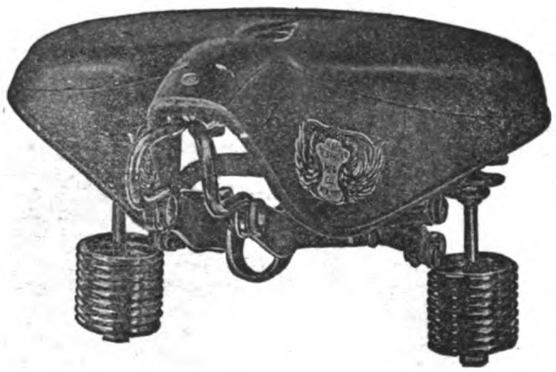

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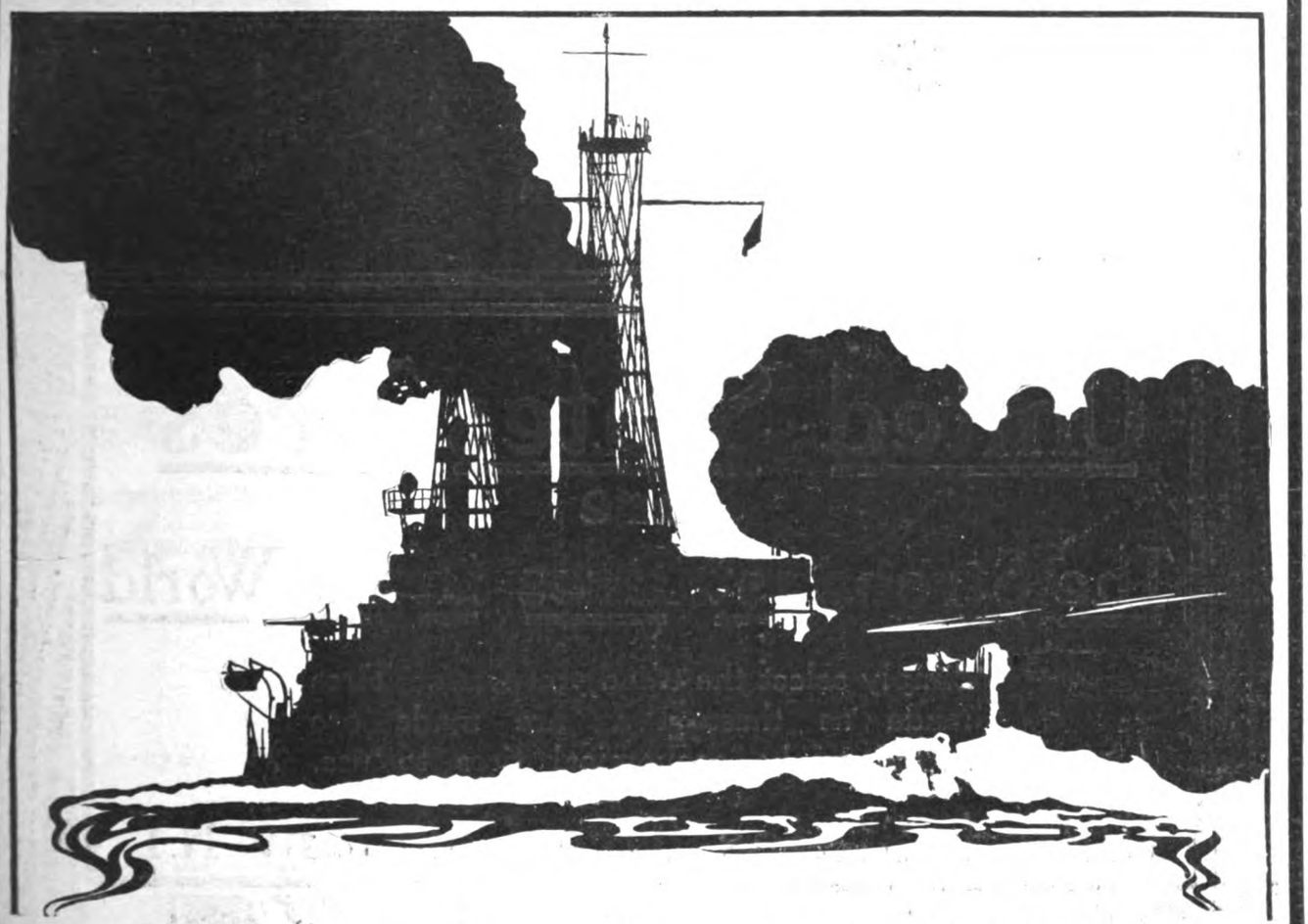

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Vol. 8 JANUARY 9, 1913 No. 1

MOTORCYCLE ILLUSTRATED

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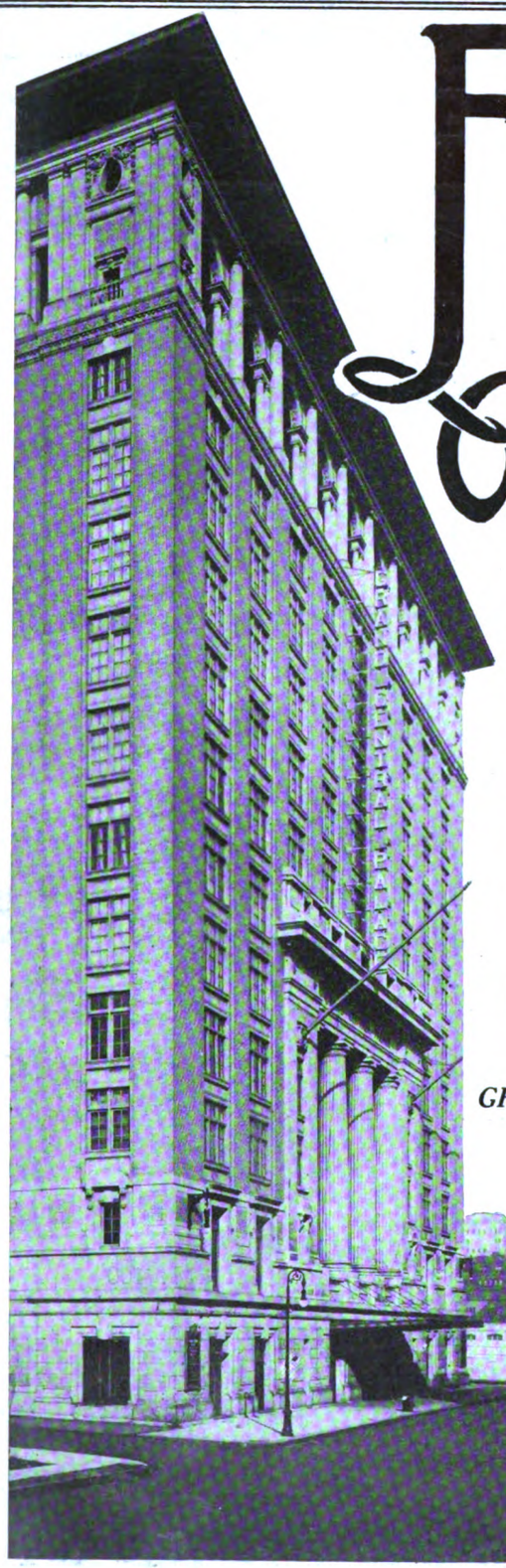
MOTOR ILLUS

FORECAST of



EVERY desire on the part of riders and users of motorcycles will be catered to, it is safe to predict, in the forthcoming Motorcycle Show in the Grand Central Palace next week. Ranging from the 3½ horse single to the monster 9 horse twin, from the requirements of the sober-paced solo rider to the cross-country record-breaker or speed enthusiast and the sociably-inclined rider who fits a sidecar, a variety of choices can be made in every case. Nor will the commercial element be neglected in this respect, as devices for carrying articles weighing up to 600 pounds loads will be shown.

Compared to the 1912 shows, the changes in general are more in the line of refinements in construction and appearance rather than as startling innovations. The season of 1913 will, however, show the increase in devotees in at least two important elements of construction: spring frames and hub variable gears. A greater trend toward standardization in control, equipment and the like is likewise very noticeable, and indicates the stability of the industry in all connections as well as the constant search for betterment in all directions and proportionate advances toward the final goal. From the veriest novice to the most experienced rider there will be plenty of features of interest throughout the exhibits and greater variety than for several years past.

A Heavyweight Season.

WHILE there will be plenty of exhibits showing 4 horse single machines, and at least one showing a 3½ horse single, there will be noticed an advance in power in numerous instances in the newer models particularly, and the 5 horse single may be said to be the "regular" type for 1913. It is not by any means that the 4 has been found wanting in any lines to which it has been applied, but there has been a steadily growing demand for singles slightly more powerful than the 4, and the 5 has been put out to satisfy this demand. The light and medium single and twin have disappeared, the latter never having been popular with American riders, but it is unsafe to predict that there may not be a demand for a medium twin before we again pass along the line of exhibits in 1914.

Big Twins Also.

IN line with the increase in the power of the singles, there is a corresponding increase in that of the twins, 8 horsepower and as high as 9-12 being fitted in several cases. To the increase in long distance touring and to the use of the sidecar and other passenger attachments is probably due this advance, rather than in the desire for greater speed, but it will undoubtedly be a long time before the regular standby of previous seasons, the 7 horse twin, will be succeeded universally by higher-powered motors. The construction and marketing of these big motors with air-cooling, to the technical mind, shows the firm grasp that designers have on the relatively difficult problems of motors of this type.

Few Variable Gears.

AS far as numbers go, there will be seen no gain in the ranks of the variable gear advocates, but whereas in the past season the chief representation was in the countershaft

FRANK MERRITT

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CYCLE TRATED

the NEW YORK SHOW

type of dog-clutch, planetary and sliding gears, with but one example each of the engine-shaft and hub devices, the devotees of the latter type have slightly increased in number, including the Thiem and Merkel among others, which, with the engine-shaft Thor type, practically ties the countershaft position followers for 1913. Dog-clutches advocates are the Indian and Michaelson, while the Pierce retains the sliding type with indirect drive on both speeds. Two ratios only will be fitted to all, the three-speed device having not yet made its appearance.

Undergearing and Countershaft.

A DIRECT chain drive with main reduction by undergearing is to be seen on the Reading-Standard and Thor machines, but the majority of chain mounts will be of the countershaft type, having a primary drive to the countershaft and a final drive from the latter to the rear sprocket. On the belt models the drive is direct, any variable gear device being fitted either to the hub or engine-shaft.

Free Engine Devices.

THE free engine device is now practically universal, no matter what the transmission means, and the multiple disc clutch of Eclipse make the most used. This type of clutch other than of the make mentioned is to be found on the Indian, Thor and Pierce makes, while cone-clutch advocates will be found in the Reading-Standard and Iver Johnson. The Harley-Davidson continues the characteristic free-wheel disc clutch of former seasons in the hub. Control is by hand lever at the left side of the frame, with the exception of the Indian two-speed mounts, where a rocking pedal is employed.

Carbureter Construction.

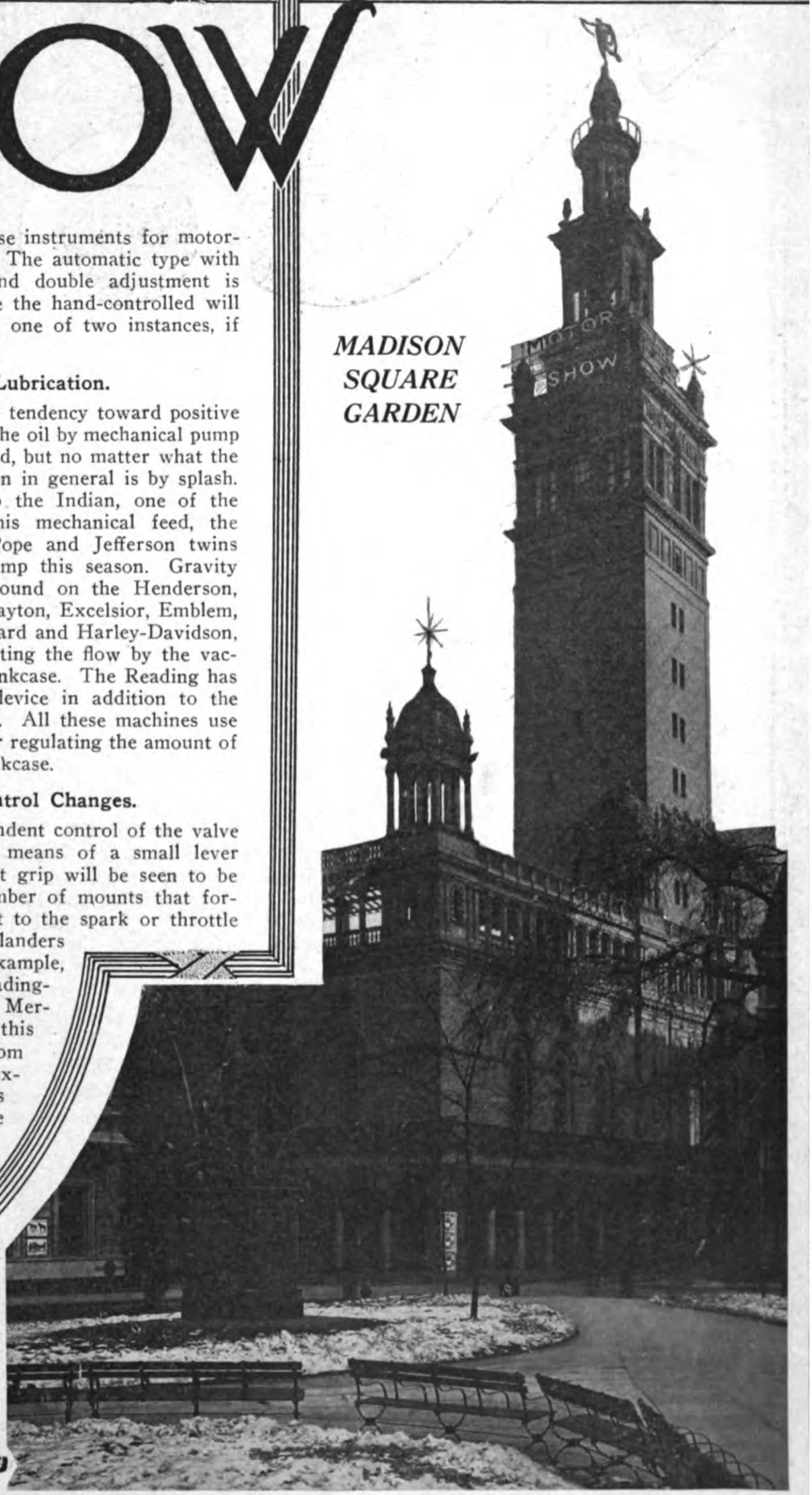
ONLY minor changes will be observed in carbureter construction, an indication of the great reliability of these instruments for motorcycle service. The automatic type with both single and double adjustment is the rule, while the hand-controlled will be seen in but one of two instances, if at all.

Lubrication.

A STRONG tendency toward positive feed of the oil by mechanical pump will be observed, but no matter what the feed, lubrication in general is by splash. In addition to the Indian, one of the pioneers of this mechanical feed, the Yale, Thor, Pope and Jefferson twins will fit the pump this season. Gravity feed will be found on the Henderson, Pope single, Dayton, Excelsior, Emblem, Reading-Standard and Harley-Davidson, the latter assisting the flow by the vacuum in the crankcase. The Reading has a measuring device in addition to the regular system. All these machines use a sight-feed for regulating the amount of oil to the crankcase.

Control Changes.

THE independent control of the valve lifter by means of a small lever under the right grip will be seen to be fitted to a number of mounts that formerly linked it to the spark or throttle grip. The Flanders twin is an example, while the Reading-Standard and Merkel continue this arrangement from 1912. The Excelsior models operate the clutch by means of the left grip.



MADISON SQUARE GARDEN

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MOTORS

FOUR-STROKE motors giving one impulse per cylinder every two revolutions form the bulk of those to be exhibited in the Grand Central Palace next week, and will be seen in single, twin and four-cylinder types, the latter being in the minority. The only two-stroke advocate, Schickel, stands alone in this field, but with two models, a 5 and a 6 h. single. This motor is valveless, and has one firing stroke per revolution, taking the explosive mixture for the crankcase and under side of the piston from ports opened by the latter near the foot of its stroke. The burned charge is exhausted through ports at the lowest part of the stroke, as these are uncovered during the downward movement of the piston, and at the same time a new charge is compressed in the crankcase. Minor changes only have been made in these motors since their first appearance, two years ago, at Chicago.

Twins and Singles.

AT this period it is difficult to state which of the two types, single or twin, will be used in the majority, but in point of numbers shown the "one-lunger" will depress the balance in its own favor. Practically every maker of a twin makes a single also, but there are motors made as singles only, such as the Black Hawk, Pirate, Schickel and Thiem. There is a notable tendency toward increase in the power of both types, the 5 single probably being able to hold that it is the "regular" type for the new season, although the 4 single will be seen at the stands of a large number of exhibitors as the Monarch, Indian and M. M. among others. Similarly, the 8 and 9 h. twins have come into popularity, but by no means have they displaced the 7. It will be several seasons at least before this popular-powered motor will step down from the position it has held heretofore. It may be that the increase in power is due to the growing use of the side-car and of more general long-distance touring, rather than in the desire for more speed on the road. Among those fitting the 8 h. twin are the Dayton, Reading-Standard, De Luxe and Eagle. The Harley-Davidson will put out a 7-8 twin, as will the Merkel. Among the stanch retainers of the 7 twin are the Indian, Yale and Excelsior.

Mechanical Inlet Valves.

WITH but few exceptions, all inlet valves are mechanically operated, one former advocate at least of automatic inlets having gone to swell the ranks of the mechanically-actuated devotees. The location of the inlet shows a strong tendency toward the single-chamber location, where the inlet is operated vertically over the exhaust valve in a common chamber. This form is known as the single-chamber L-head arrangement. Among users may be mentioned the Indian, Merkel, Monarch, Black Hawk, Harley-Davidson, Dayton, Eagle, Spacke and Excelsior. The side-by-side L-head type, with valves in separate chambers has its advocates in the Reading-Standard, the pioneer in this country, the Iver Johnson, and the Minneapolis-Pirate. Valves in the head advocates number, among others, the Jefferson, Pope, Curtiss, while the automatic inlet's chief advocate is the M. M. It will be seen that the valves-in-head ranks have been augmented since 1912.

Bearing Types.

THE plain bearing will be seen on the majority of motors, but there has been an increase in the roller-bearing and ball-bearing ranks, so that the question as to the final type of motorcycle motor bearings is far from being definitely decided yet. The Indian motors have roller bearing crankpins for the new season as compared with the plain bearings used heretofore, while the M. M., Eagle and De Luxe also employs this type. Ball-bearing advocates are the Reading-Standard and Schickel two-stroke among the more prominent. There is quite a tendency toward the use of both plain and ball or roller-types noticeable.

Magneto Drive and Position.

BUT few motors with battery ignition will be shown, the preponderating majority being fitted with the high-tension magneto as the source of current. Drive is by spur gear-train for the most part, exceptions being the Spacke and the Iver Johnson, which employ cross-shafts with worm or spiral gear drive. The Schickel drives the magneto by means of a "banjo" connection, while the M. M. twin uses elliptical gears in a train. As regards position, indications point toward the location behind the cylinders as in the Reading-Standard and Harley-Davidson, although the forward position advocates still hold their own. Probably, with the newer enclosed magnetos, the question of position is not of such vital importance as was the case when open magnetos only were fitted. The M. M. twin fits the magneto between the cylinders, while the Henderson four-cylinder has it at the left side and driven by shaft, car fashion.

Cylinder Angles.

IN the case of twins, the 45 degree angle was, with two exceptions, that most used in 1912. The Indian had and continues the 42 degree angle, and the Thor the 50 degree angle, but a newcomer follows Continental practice in having the angle of 60 degrees. This is the Iver Johnson with side-by-side valves and 7 h. It is to be hoped that the multiplicity of angles which characterize European twin construction will never be adopted here, as with the M. M. twin of 90 degrees there are now five different arrangements for 1913.

Four Cylinders.

PRACTICALLY no new converts to the four-cylinder ranks will be seen this 1913 season. The Pierce and the Henderson are the chief in this field of construction, one employing the T-head motor, with valves on opposite sides, while the Henderson has the single-chamber arrangement. The Pierce uses

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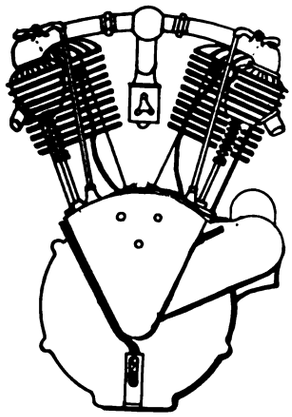


Merkel 7.

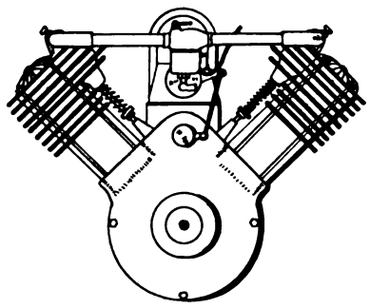
a magneto with separate distributor, while the Henderson employs an automobile type machine, the DU4 Bosch.

Merkel Twin.

ABANDONING the automatic inlet for the mechanical single-chamber arrangement are the Merkel models, the twin of which is here shown. From a "square" motor the 1912 product has been changed to a 3¼ bore and 3 43/64 stroke type with a new form of crankcase but a similar form for the cylinders, characteristic of Merkel construction. The cylinder angle is 45 degrees, and there is an oil gauge fitted at the right side of the crankcase, enabling the rider to observe his fuel level from the saddle. On the two-speed model, an innovation in motorcycle construction will be noticed. It is a spring starter, with capacity to turn over the motor eight times at least. This starter is operated by a small pedal, and covers the end of the engine shaft.

Pope Twin.

A NEWCOMER in the twin field is the overhead valve Pope with separable head and straight through inlet and exhaust passages. It is known as Model L, and has perpendicular flanges on the cylinders and longitudinal cooling ribs on the heads. The straight through construction allows the charge to pass in and out with the least resistance. This twin is typical of overhead valve practice for 1913.



Marsh-Metz 8.

Marsh-Metz Twin.

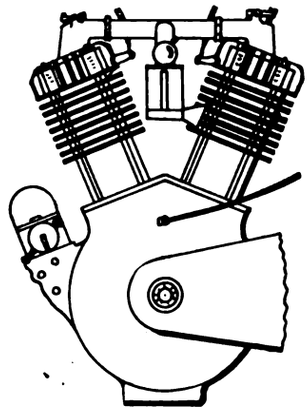
THE only 90 degree twin on the market will be seen where the M. M. machines are exhibited, being the 8 h. model. The inlet valves are automatic, as in previous models, but the pistons are of a new construction, being with their rings of vanadium-iron. There are two rings with an oil channel between and a larger oil groove around the wrist pin. The valve arrangement is, of course, the single-chamber type and the magneto, centrally located, is driven by elliptical spur gears.

Jefferson Twin.

FOLLOWING the general design of the Waverley single in valve arrangement is the Jefferson twin, shown herewith. The inlet and exhaust passages are straight through making for facile entry and exit of the charges of gas. Noticeable are the gentle curves in inlet and exhaust pipes. The magneto is mounted in front of the motor and the crankcase is smooth, making for ease in keeping the power plant clean. The power is 7 and the cylinder angle 45 degrees.

Indian Twin.

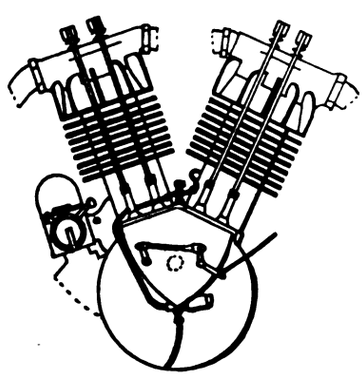
THE construction and appearance of the Indian motors is almost too familiar to need description here, and the changes made for 1913 are very minor, being in an added length to the transmission side bearing and steel flywheel discs. The kick—or pedal—starter is slightly altered to have the foot-pin swing out of line when not in use, and a rubber tread is fitted to it. The ratchet is also slightly altered in the manner of carrying it. This machine has the foot starter on the two-speed models only, and was the pioneer in fitting other than pedal-gear starting in this country. Other details need no comment.



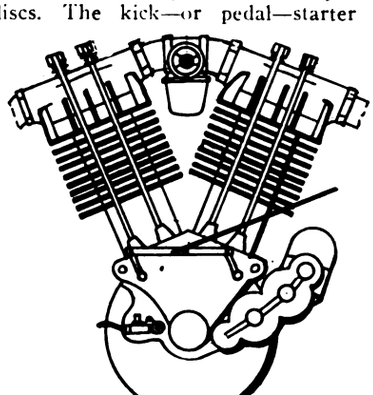
Indian 7.

Spacke Twin.

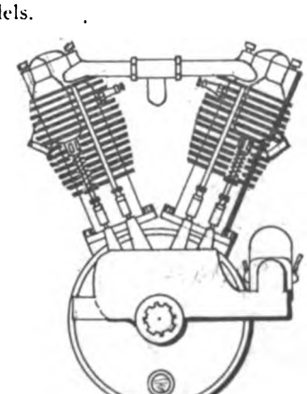
THE Spacke motor, used on the Eagle, Dayton, De Luxe and Michaelson machines is of the single chamber, inlet over exhaust type, the twin model of 8-10 h. being here illustrated. The inlet valve is in a dome, and the rocker lever and dome itself are enclosed in a hood, the inlet rocker rod passing from the tappet through holes in the cooling flanges. Roller-bearings are used on the big ends of the connecting-rods, and the magneto is driven by spiral gears and a horizontal shaft. The cam connection is peculiar, the working faces being on one side instead of on the circumference, as in ordinary practice, while the cams are formed integral on the lateral shaft which drives the magneto. The oiling distribution is to the connecting-rod bearings at both ends as well as the shaft bearings, the splash from the crankcase being distributed by suitable internal construction. These motors are made in 4 and 5 single and 7 and 9 twin models.



Pope 7-8.



Jefferson 7.



Spacke 9.

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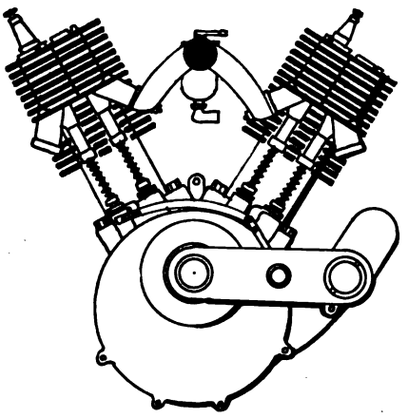


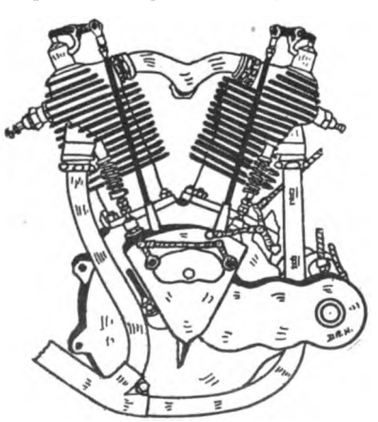
Iver-Johnson 7-8.

Iver Johnson Twin.

A SIDE-BY-SIDE valve twin is the Iver Johnson, with 7 h. and magneto at the front of the motor. The arrangement of inlet piping is unique, and gives excellent distribution of the gas to each cylinder, the inlet branches being always full of mixture. The curves of the exhaust pipes are gentle, facilitating easy flow of the burned charges, and no muffler is fitted, there being a very long tail-pipe with large perforations. The cylinder angle is 60 degrees, and in the use of this angle the makers are pioneers in this country. A smooth crankcase makes for ease in cleaning and the arrangement of covers in the distribution and magneto casings for ready inspection and adjustment.

Schickel "Bix Six."

THE latest addition to the two-stroke Schickel line is the "Big Six," shown herewith. Like previous constructions of this firm, there are no valves, but the arrangement of the connections is changed as compared with the 5 h. model. The exhaust is in front and connects with a very large muffler fitted with a tail-pipe with "sharpened" end. The carbureter is at the rear, and the compression relief is fitted within a casing so arranged that any oil discharged will be retained until let out by a plug at the bottom. The carbureter used is of the puddle type, and is fitted with a drain to prevent too high a level in the "puddle." The motor has a bore of 4 inches; very large for an air-cooled motor.



Excelsior 7.

Excelsior Twin.

THE Excelsior is a 45 degree angle twin, of 7 h., and in many respects is typical of standard twin practice. It was one of the pioneers in smooth crankcase construction, and still retains for 1913 its scientific inlet piping, ensuring proper distribution of the mixture to the cylinders. Excelsior motors in both single and twin types are of single-chamber valve arrangement.

Harley-Davidson Single.

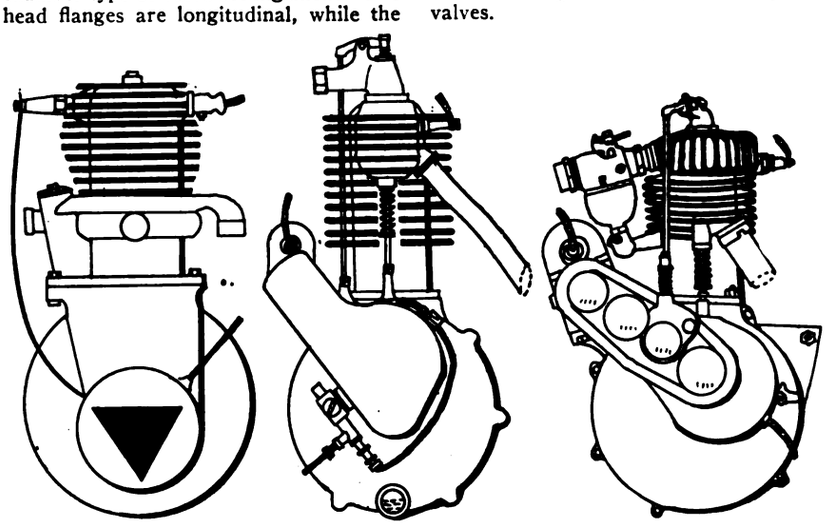
THE Harley-Davidson "5-35" will be seen as the latest model of the Milwaukee firm, and is of the single-chamber type of valve arrangement. The head flanges are longitudinal, while the cylinder body flanges are lateral. The magneto is fitted behind the cylinder, and the inlet and exhaust valves have each their own independent cam and action. An oil pocket is arranged in the exhaust chamber, catching the oil on the valve stem and vaporizing it, making for cleanliness. The semi-automatic vacuum feed used with success on former models of this make is continued, and there is a new breather device which carries the oil out below the bottom of the crankcase.

Yale Single 5.

ANOTHER single with the inlet over exhaust arrangement is the Yale 5, which succeeds the 4 h. model of last season. The inlet rod passes through holes in the horizontal cooling flanges and through the inlet connection to the dome carrying the valve. The exhaust passes out at an angle through a straight section of pipe followed by a big loop, giving relatively free passage, while the straight inlet pipe enables the freest possible induction of the fresh charge. A mechanical oil-pump feeds the oil from the tank to a two-way connection, one branch of which goes to the distribution casing and the other to the crankcase. The magneto is located behind the cylinder.

Reading-Standard 5.

THE successor to the 4 h. single Reading-Standard is the new 5 single shown herewith. Typical of this firm's construction are the inlet and exhaust cams and half-time gear in one piece, the valves being operated by rockers through tappets. The exhaust lifter acts directly on the exhaust tappet, thus obviating any bending of the valve mechanism. The magneto is carried on its seat by a strap of steel, and is behind the cylinder. Like other Reading motors, it has side-by-side valves.



A Trio of Single Cylinder Motors—Schickel Two-Stroke "Big Six," Yale 5 and Harley-Davidson 5, the two latter showing standard valve practice.

OFFICERS ELECTED

CLEVELAND, O.—Contests marked the election of officers for 1913 by the Cleveland (Ohio) M. C., and it was only after three ballots had been taken that J. D. Waltz took a lead over F. B. Preston for the office of president. R. S. McConnell is the retiring president. H. Johnson was chosen as vice-president; Raymond Ray, recording secretary and treasurer; George McIntyre, financial secretary, and Oran Entres, publicity chairman. The directors for the coming term are: R. S. McConnell retiring president; H. H. Huntsbery and A. J. Macbeth.

A SQUAD of motorcycle messengers has been established by the Shubert theater in Milwaukee, for the delivery of theater tickets.

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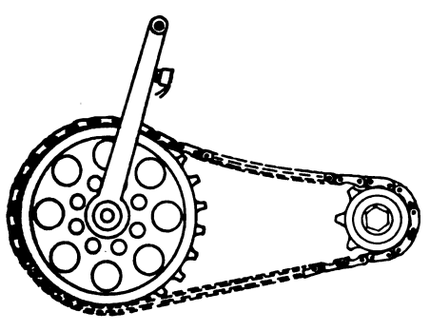
GEARS & CLUTCHES

THERE are few machines for 1913 which will not be provided with a free-engine clutch, and those to be seen in the Grand Central Palace shortly will show clutches fitted in all three of the chief locations; engine shaft, countershaft and rear hub. The majority of machines have the devices fitted in either of the two first-mentioned positions, the chief advocate of the hub position for the clutch being, as in previous seasons, the Harley-Davidson. The actuating lever is mounted just forward of the seat mast, as in the 1912 design. On the belt-drive machines of this make an idler operated by a hand-lever is fitted in addition to the clutch lever, and the location of both is such that no mistake can be made in reaching the proper lever.

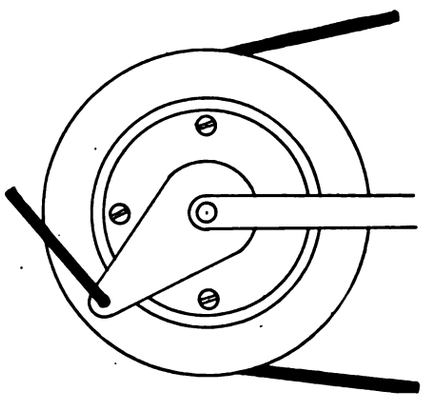
Multiple Disc Predominates.

OF the several types of clutch to be seen the multiple disc predominates. The actuation of practically all clutches is by hand-lever at the left side of the frame, as in the cases of the Dayton, Merkel, Yale, Indian single-geared, Pope and Schickel Six. These machines have the clutch located in the countershaft position, while the Pope Four, Reading-Standard Four, among others, have lever control with clutch on the engine shaft. The clutch most used is the Eclipse.



Indian Foot-Starter.

ON the Indian two-speed machines will be seen a heel-and-toe pedal alongside the left foot-board for controlling the clutch, which on all these models is of Hendee make. This design appears for the first time in this country on Indian machines, and is an excellent means of control. The pressure of the rider's toe disconnects the motor from the final drive, while a movement of the heel engages the discs with each other. On the new Excelsiors the clutch is operated by a twist grip on the left bar, as is the case on both models of the Schickel. On the belt model of the latter the grip operates the idler, and on the chain models, the Eclipse disc clutch.



Eclipse Clutch.

Cone Clutch.

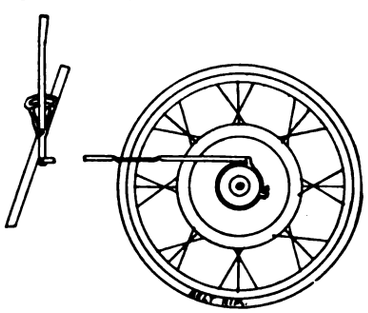
ON the Reading-Standard single 5 and twin, and on the Iver Johnson mounts, cone clutches are employed, operated by hand lever on the left side of the frame. The Reading clutch has the male cone carried by the undergearing, and the female cone carries the chain and sprocket. The latter cone is moved out of contact for the free engine position, and is controlled by a latched lever working over a toothed quadrant. The male cone of the Iver Johnson engine-shaft clutch is forced inward for the release, a fan-shaped surface on the hand-lever effecting this inward movement. There is no undergearing in this model. There are no instances of cone clutches carried in the countershaft or rear hub positions.

Eclipse Clutch.

THE Eclipse clutch is of the multiple disc type, adapted for either engine shaft or countershaft positions. The casing carries the transmission member (sprocket or pulley), and has internal lugs formed in it on which are carried the positive discs. Through the center of the casing, but independent of it, is a slotted shaft carrying an equal number of discs which interleave with those on the casing. An inner plate carries a worm on which works a nut operated by the operating lever, the nut being stationary with relation to the worm until moved by the operating lever. Six springs are fitted between the inner plate and the cover of the casing, and when the nut turns the worm the spring pushes the inner plate, causing the pack of discs to contact with each other and connect the motor with the transmission. A reverse movement of the worm draws back the inner plate and the discs separate, giving free engine position.

Variable Gears Scarce.

IN point of numbers of models to be seen, the variable gear situation is about the same as during the 1912 season, one advocate having dropped out and a new one having been added to the ranks. It is safe to predict, however, that the demand for these devices will bring out a quantity of new designs which will not be forthcoming at the shows, as their advantages for passenger work are becoming more and more obvious as the side-car increases in use



Harley Free Wheel.

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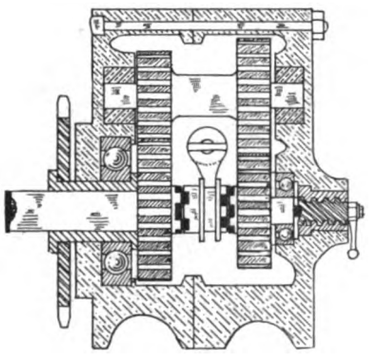


Indian Two-Speed Gear.

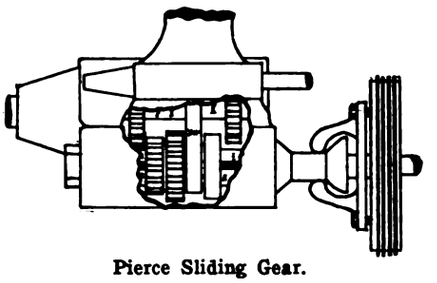
more and more. But though relatively few in numbers, the quality of those shown is excellent, such makes as the Merkel, Indian, Thor, Pierce, Michaelson and Pirate being the exponents. Classified into types, the Merkel, Thor and Pirate use the planetary; the Indian and Michaelson the dog-clutch, and the Pierce the sliding type.

Dog Clutch Gears.

IN the dog-clutch type of variable gear, the illustration of the Indian will show the operation. The clutch is mounted on the larger shaft whose inner end carries the squared shaft and slider with two dog-clutches. Loose on this are two gears fitted also with dog teeth and meshing with two other gears in one piece on the side-shaft. The left-hand gear is mounted with a sleeve which carries the final drive sprocket.

Pierce Sliding Gear.

TYPICAL of general motorcycle sliding gear practice is the Pierce two-speed gear shown in the illustration. A spool slides on a slotted shaft which is a continuation of the clutch shaft, and there are two gears mounted on the spool. For the high speed, the spool is moved toward the right, whence the larger of the two gears is meshed with another on the side shaft, which latter drives the final drive shaft. For low speed the spool is slid to the left.



Pierce Sliding Gear.

Planetary Hub Gears.

THE new Merkel two-speed model has a planetary device incorporated in the rear hub and operated by a lever and rod to the countershaft, where the same arrangement of lever as in the clutch models operates the two speeds. In addition to the variable gear there is fitted a compensating device in the rear sprocket and hub end. In the Thor arrangement, the planetary gear is fitted to the hub on the left side and actuated by a lever working in a vertical gate or selective quadrant.

TRANSMISSION

COMPARISON with the 1912 models in transmission will make noticeable the increase in the number of chain drives fitted and a decrease in the number of belt models, though this latter is not in proportion. Of the chain-driven machine models, quite a number of former all-belt advocates are offering alternatives of V or flat belt or chain, while others fit their twin machines with the chain exclusively. The shaft drive has but one representative, the Pierce, a decrease of two advocates since the 1912 shows. The predominance of the chain is probably due in part to the very general use of friction clutches or free engine devices, fittings which were too conspicuously absent for last year's machines, with a few exceptions. Nevertheless, it is still difficult to predict what the ultimate form of transmission will be, but for 1913 at least the drive for twins will be preponderatingly by chain.

Countershaft Drive.

OF the various chain arrangements, that employing a primary drive to a countershaft and a final drive to the rear wheel sprocket will be seen in the majority of cases. There are examples of different arrangements which are worthy of note, as for example the under-geared, single chain drive of the Reading-Standard and Thor. In this form, the engine shaft carries a small pinion which meshes with an internal gear in the clutch body, the ratio on the Reading-Standard drive being 3:1 in this under-gear device. On the other member of the clutch is carried the front sprocket and the chain leads directly to the rear wheel. On both transmissions mentioned the clutch is carried practically on the engine, while on the countershaft drive it is located on the rear sprocket of the primary drive. Another modification is to be seen on the Henderson four-cylinder machine, where the longitudinal motor first drives a cross-shaft by bevel gearing, and a single chain is used for the final drive. The clutch is in this case mounted on the end of the cross shaft.

Flat and V-Belts.

A SLIGHT superiority in numbers in favor of the flat belt will also be noticeable as compared with the V-belt. As a rule belts of the first type will be seen in double ply for all but the very heaviest service, an exception being the three-ply flat belt on the big Eagle twin machines. Those interested in their pet makes will see the names of Spartan, "White Strip" and Reinhold in both flat and V types. In chains, the domestic article will be represented by Diamond, Duckworth and Whitney, and the imported brands by Hans Renold, and Coventry.

Combination and Worm Drives.

ALTHOUGH a few experimental models may make their appearance at one or the other of the 1913 shows, it is doubtful if the combination or worm drive will appear at all. The former involves a countershaft drive with the primary drive by chain and the final drive by V belt. The latter transmission replaces the bevel gear in a shaft or cross-shaft drive by a worm and worm wheel with other parts of the respective transmission as before. Shaft drive with bevel gearing at each end has disappeared since 1912, and may not have a return to favor.

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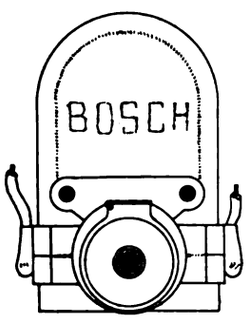
IGNITION

IN the realm of motorcycle ignition, the true high-tension magneto reigns supreme, although there are a number of makes of single-cylinder motor that still employ the battery-and-coil system of ignition. These are, however, the more moderate priced models, and at the show in the Grand Central Palace, the dry battery as a current source will be noticeable by its rarity, if not by its absence. The true high-tension magneto is so called by reason of having both



Bosch ZEV.

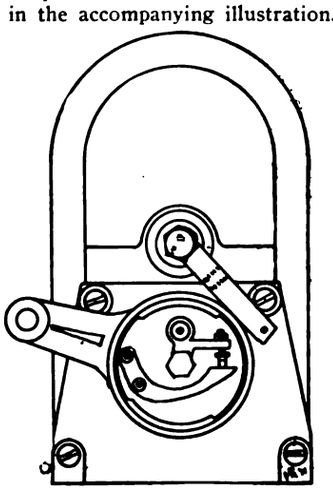
the primary and secondary windings on the armature, in contrast to the low-high-tension machines which have only the primary winding within the tunnel and the secondary windings either under the magnet arches or arranged otherwise outside of the body of the magneto. The three magneto types which predominate are the Bosch, Herz (Ruthardt) and the Splitdorf.

The Bosch Z Type.

THE makers of the Bosch magneto brought out fully-housed machines for motorcycle service in 1912 and these models will be seen on 1913 mounts. Characterized by the letter Z for identification, the magnetos are provided with aluminum end plates and washers which fit closely on the magnet arches, giving a dust-tight and rain-proof construction. That on the drive end is fitted above a casing carrying the ball bearings for the armature, and is provided with an insulated aperture for the cable to the spark plug on the single-cylinder model (ZE1). The terminal is within this plate and is specially designed for this magneto. On the twin model (ZEV) the terminals fit outside of special vulcanite pieces, as will be seen in the illustration.

The Herz Magneto.

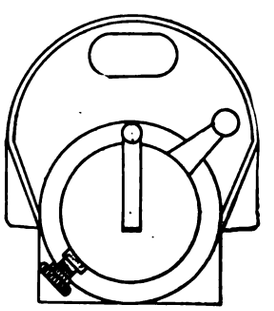
FOR 1913 the makers of the Herz high-tension magneto will fit a new model, known as the 4U1, for single-cylinder ignition. Like all former models of the Ruthardt machine, aluminum end plates are fitted and with the heavily insulated terminals supplied, the magneto is thoroughly water and dirt-proof. Instead of using horseshoe-shaped laminated magnets, the new models on view at the show will have a pair of U-shaped magnets, with separate pole pieces. The condenser sheets are clipped together and wound with two wrappings of waterproofed cord in addition and fitted at the contact end with a protective flap for insulation. A "doll's head" and button form of terminal, used heretofore in modified type on the Herz automobile ignition apparatus, is another noticeable feature of this magneto. The characteristic shape of Herz machines will be seen in the accompanying illustration.



Splitdorf.

Splitdorf Magneto.

THE Splitdorf magneto incorporates a centrifugal contact maker, which was an innovation in ignition apparatus construction when first exhibited at the 1912 shows, and still can be ranked as one of the most ingenious devices yet applied. The contact lever has a short, heavy arm carrying the roller which is four sided, giving four distinct wearing surfaces. In addition to the spring for keeping the platinum points in contact during the



Herz 4U1.

"make," the heavy arm stays out by centrifugal force and assists contact when the speed is high until the roller is again "wiped" by the contact surface. Contact is therefore instantaneous. Noticeable on the Splitdorf machine are the large insulating surfaces on the terminals. The latest of these magnetos is described elsewhere in this issue, and the model described is shown herewith.

LORAIN'S STAFF.

MEMBERS of the Lorain Motorcycle Club, of Lorain, O., participated in a run to Gulf Hill, on New Year's Day. At a recent meeting of the club officers for the year were elected. Edward Clotz is president; J. Michels, vice-president; Floyd Blackford, secretary; Charles Good, treasurer, and Louis Gerhart and Albert Kane were named directors. G. W. Williams was chosen road captain and Thomas Lynch, lieutenant.

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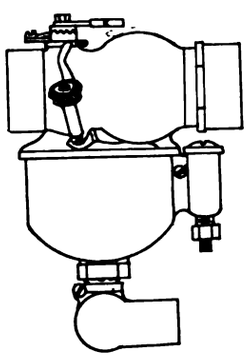
CARBURETION

ONLY automatic carbureters will be used for the season of 1913, these instruments following along the line of previous models in 1912. In the great majority of cases, changes in construction have been very minor, and it is safe to say that riders and prospective riders who are familiar at all with the present standard designs will rarely recognize the differences in next season's products. The nature of the changes, being such,



Schebler.

indicate that most satisfactory carbureters are now in use and the types, if not final, are at least a remarkable way toward finality. The primary air, in the majority of constructions, flows past the jet in a relatively fixed quantity, an auxiliary air valve supplying automatically the dilution with air necessary to maintain the mixture in its proper quality as the speed increases. An exception to the use of the jet is to be seen on the Schickel motors, where the carbureter is provided with a puddle from which the gasoline is swept off to form the mixture. This carbureter is very interesting in having an overflow device, thus keeping the level of gasoline in the puddle constant, as well as that in the float chamber.

The Breeze.

SHOWN in part section herewith, the Breeze carbureter well illustrates the usual arrangement of motorcycle carbureters. In the model there is no jet control in connection with the throttle lever; the adjustment is independent. The auxiliary air valve is at the top of the mixing chamber, while the jet is vertical, with a Venturi tube, the end of the needle valve being just below where the instrument is cut away. The throttle lever is adjustable on its spindle, while the throttle is of the butterfly type standing vertically. A latch retains the needle valve in its setting until moved by means of the milled head. The float chamber is concentric, surrounding the Venturi chamber.

Schebler Type.

A TYPE of carbureter in which the needle valve adjustment is varied as the throttle is moved is the Schebler, probably as widely known a type as any in America. In this carbureter a cam on the stem of the butterfly throttle rocks the jet needle valve, increasing the opening or decreasing it as the case may be. The auxiliary air valve is fitted to move horizontally in the end of the mixing chamber, which is of the straight-through type. The jet is set at an angle in the mixing chamber, and there is an adjustment for slow speed, consisting of a small lever working over a graduated arc attached to the throttle stem and permitting of any desired minimum opening. A Venturi tube surrounds the jet as in the model described previously. The type used in most cases is the "H."

Heitger Models.

THE Heitger carbureter is made in two models, one with adjustment for both low and high speeds and the other for single adjustment only. On this carbureter the float bowl is either of glass or metal and the jet is fitted within a Venturi tube at the throat, extending vertically through the center of the instrument. The straight-through chamber and milled knob adjustment for the auxiliary air valve, which are characteristic of American carbureter design for motorcycles, appear on all Heitger models. A new model is described elsewhere in this issue.

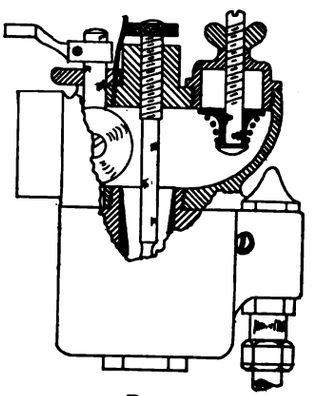
Hand Controlled and Adjustmentless.

THE hand-controlled, or Continental, carbureter is practically non-existent on 1913 models, and it is very doubtful if it ever will be again used except in isolated cases, as of individuals. There is a slight tendency toward the development of the so-called "adjustmentless" carbureter, where one or more jets are used and the only setting is that of the minimum opening of the throttle or of a by-pass for slow running. The only multi-jet carbureter in any general use for the coming season will be the Hedstrom instrument, as fitted to the Indian machines. This has a main jet under control of the barrel throttle, and a pilot jet which comes into action for idling and slow running but is out of control of the throttle.

INDIANA OFFICERS.

FOLLOWING are the F. A. M. officers for Indiana as appointed by the State Commissioner: E. P. Whitmer, secretary-treasurer; E. G. Baker, competition committee; J. E. Merz, press committee; Roy Sonneborn, legal action committee, and Elmer Smith, membership committee.

MEMBERS of the East St. Louis (Ill.) M. C. are planning to hold a card party and dance in the near future at their headquarters.



Breeze.

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LUBRICATION

SPLASH lubrication will be depended upon in the majority of cases in the motorcycles to be seen in the Palace, no matter what the means of bringing the oil to the motor from the tank. In regard to the oil feed, there will be noticed a decided tendency toward the employment of mechanical pumps driven by the motor for forcing the oil to certain bearings, but as far as the cylinder walls, piston and wrist-pin are concerned, splash even when these pumps are fitted is still depended upon. Probably the chief feed for 1913 will be by gravity from the tank, with a sight-feed glass to regulate the amount of oil passing to the crankcase. This action in several cases is further assisted by the depression within the crankcase during certain strokes of the cycle. Feed by hand pump only will be noticeable by its rarity.

Mechanical Pump Feed.

WHILE the use of the mechanical pump feed is by no means new, being employed for several seasons on the Indian machines, among others, it will be seen applied on the Yale, Pope, Thor and Jefferson twins, also. One lead from the tank goes to the suction end of the pump, while the discharge is sent generally to the crankcase, or in the case of the Pope twin to a two-way connection above the gear casing. In this latter arrangement, one branch goes to the gear casing and the other to the rear wall of the front cylinder. A similar arrangement is fitted to the Indian twins, and these with the Pope, are the nearest approach toward all-force-feed lubrication, which it is reasonable to predict will be the final lubrication system. The pumps are driven at a great reduction as compared with the speed of the motor, and the stroke is adjustable to suit the conditions of running. In nearly every case a hand pump is provided as an auxiliary for speed work, filling the crankcase, etc.

Gravity Feed.

GRAVITY feed from the tank to crankcase with a sight-feed glass for regulation will be seen to have two classes of adherents: those employing hand regulation of the feed only, and those who increase the amount of feed automatically with an additional hand setting. Among the first will be seen the Harley-Davidson, Pope single, Dayton, Henderson, Reading-Standard, Emblem and Excelsior, the two latter and the Dayton having hand pumps as auxiliaries. The Reading-Standard has as an auxiliary, a cup controlled by a handle above the tank, which measures off a given quantity of oil and permits it to go to the crankcase. This cup device is used for high-speed work, etc. In the second class come the Merkel, and Flanders single, where the needle valve of the sight feed is lifted or lowered by a connection to the carbureter throttle. On the Merkel there are two regulations: A milled head on the valve stem for low speed and a handle on the side governing the inclination of a cam surface over which an arm attached to the needle valve rubs when the throttle is moved. There is a hand pump in addition and the level of oil is ascertained by a gauge at the side of the crankcase, visible when the rider is in the saddle. On the Flanders machines there is no auxiliary.

Induction Lubrication.

THE chief advocate of the two-stroke motor, Schickel, employs a unique oiling system for 1913 along the same lines as that of 1912. In this arrangement, the oil is mixed with the fuel and goes to the carbureter and crankcase where it lubricates by splash. The proper amount of oil is provided for by a measure which forms the filler cap to the tank, one measure being ample for the full gasoline tank contents. This method of oiling has been taken up abroad on practically the best two-stroke motorcycle motors for the coming year and is attracting much attention.

Hand Pump Feed.

ADVOCATES of the hand pump for feeding are few in number, the chief being the Marsh-Metz and the Iver Johnson. On the first of these the pump is fitted alongside the oil tank, which is situated in rear of the motor, while in the case of the Iver Johnson, the pump is buried in the tank at the left side, but with the grip convenient to the rider's hand. This location of the hand pump is to be seen on the Dayton and Emblem as mentioned previously.

NEW YORK SPEED LIMIT.

ON January 6 the Board of Aldermen of the City of New York passed an ordinance limiting the speed of all vehicles, motor or otherwise, and including a section prohibiting reckless and negligent driving. This law goes into effect March 1 and there are provisions of fine and imprisonment as punishment for violation of any section of the ordinance. For streets on which public schools adjoin the limit is ten miles per hour; in the borough certain highways, such as upper Broadway above 125th street, Hoffman Boulevard and Grand Concourse (Bronx), the limit is respectively raised to 18 and 20 miles, the latter on the Bronx highway mentioned. A 25-mile limit is provided for in sparsely settled portions of the county. An excellent provision is the prohibition of vehicles from approaching nearer than six feet of a street car discharging passengers, and in not passing until the car is under way. A card system is used to keep track of violaters of this ordinance.

HUMISTON CRACKS RECORDS.

LOS ANGELES, December 30.—Lee Humiston, riding an Excelsior, put a crimp in all records from 1 to 12 miles at the Playa del Rey mile motordrome. He beat the records of Ray Seymour by about a second at each lap. This record-breaking streak was stopped after the twelfth mile, when Humiston broke his manifold and his carbureter went out of adjustment. After the excitement was over Humiston declared that he would go after all other records up to 100 miles as soon as possible.

A MOTORCYCLE is used by a newspaper publisher of Pensacola, Fla., in delivering daily papers.

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FRAMES-FORKS ETC

THERE are several minor features with regard to the frames of 1913 which show most careful study of road conditions in general, and the chief of these are the retention of a rather short wheelbase, a reduction of saddle height and an increase in tankage capacity. The 1913 motorcycle shows strong tendencies toward the "cob" type, with its camel-back frame, low seat position and big tanks as stated above, but with a few exceptions, there is an even stronger tendency toward a general design practically the same as in 1912 and 1911.

Spring Frames and Posts.

WHERE the Merkel only used a spring frame last season, there are now to be seen the Indian, Merkel, Jefferson, Pirate, Iver Johnson and Pope in the ranks. The first mentioned and the Jefferson are sprung both fore and aft on coach-type springs, the Merkel on spiral springs at front and back, while the Pope has a coach-spring front fork and a pair of spiral rear-wheel springs. The Iver Johnson has a peculiar arrangement of coach rear spring, as will be seen in the drawing accompanying. Regarding spring seat posts, the chief advocates will continue to be the Harley-Davidson, Reading-Standard and Excelsior, whose devices are too well known to need description here. The Schickel will fit a spiral spring post of original design and incorporating a shock absorber. The others use rigid frames with spring forks.

Spring Forks.

THE spring fork question seems to resolve itself into two fields, that of the coach type, and that of the spiral spring type. Excelsior, Pope, Indian, Eagle and M. M. are among the upholders of the leaf spring fork, while Reading-Standard, Henderson, Harley-Davidson, Thor and Schickel take the other side with the spiral spring type. The advocates of the first type have gained a number of adherents since the beginning of 1912, but the opponents rather outnumber them.

Indian Spring Frame.

THE Indian cradle spring fork with scroll end has been in successful use for several seasons, and for 1913 a twin arrangement of this fork type has been applied to the rear frame, making a spring frame machine. Back of the seat mast tube is fitted a U-shaped spring carrier to whose ends are attached the butts of cradle springs similar to those used in front. A reversed U piece has its ends fastened to the newly designed fork ends and carries yokes with the usual rubber buffers to accommodate the scroll ends of the springs. The springs have seven plates each in the rear. At the base of the seat mast tube is a rocker bearing about which pivots the rear fork construction.

Pope Springing Arrangement.

A TYPE of rear wheel springing which is unique is that used on Pope motorcycles. To the rear of each side of the rear construction is a C-shaped pedestal open at the back and supplied with bearings above and below. A plunger carrying the slider fork passes through these bearings and is fitted with a spiral spring above the pedestal. The rear wheel is thus given a limited spring movement up and down within the pedestal under the control of the spiral springs above.

Iver Johnson Frame.

NOTICEABLE from the viewpoint of rigidity as well as distinctive in appearance is the Iver Johnson frame, which is of the arched truss type. The intermediate tube is of heavy gauge, following the lines of the characteristic bicycle frame of this make. The front fork is of the quarter-elliptic coach spring type without scroll, and braces lead from the rigid fork ends to the steering head. On the twin model, there is another coach spring arranged vertically at the rear of the seat mast, while the rear construction pivots about a bearing in the lower part.

Harley Spring Seat.

THE Harley-Davidson frame design has been tried out in the most gruelling conditions of service and is continued for 1913 in practically the same lines as in 1912. The twin plunger-type spring forks with the axle at the end of the rocker and the spring support intermediate will be seen in the illustration. The "Ful Floteing" seat device is naturally also continued.

Henderson Trapezoidal Frame.

ONE of the most scientific frame constructions is that on the Henderson four-cylinder machine, which made its debut in 1912. It is of the trapezoidal cradle type, carrying the motor longitudinally, but the top tube no longer has a boss for a front saddle.

Merkel Spring Frame.

THE Flying Merkel continues the use of its original spring frame design, with slight modifications. The new frame is lower than that of 1912 and the two springs formerly used in the plunger pillars are replaced by a single large one, adjustable to the weight of the rider. The rocker joints have a similar shock-absorber to that of the previous models and there is an oil tank of large diameter, which forms the seat mast tube in the ordinary frame, but in this case is integral with the other frame members, the saddle being carried by a prolongation of the top tube.

Emblem Frame.

TYPICAL of the tendency toward lower saddle position with relatively short wheelbase for a large motor is the frame of the Emblem. The bend in the top tube is quite far forward and the saddle being located in the normal position with relation to the pedal gear is very low.

Schickel Spring Seatpost.

TO the distinctive box-section tank frame of the Schickel machine is added for 1913 a spring seat post, consisting of a plunger working within the hollow seat mast tube. Within this plunger are two springs, those for recoil and buffing the upward movement. These springs are separated by a pin which passes through the seat tube and carries the ends of links at its outer ends. The links form two sides of a triangle and carry a shock absorber.

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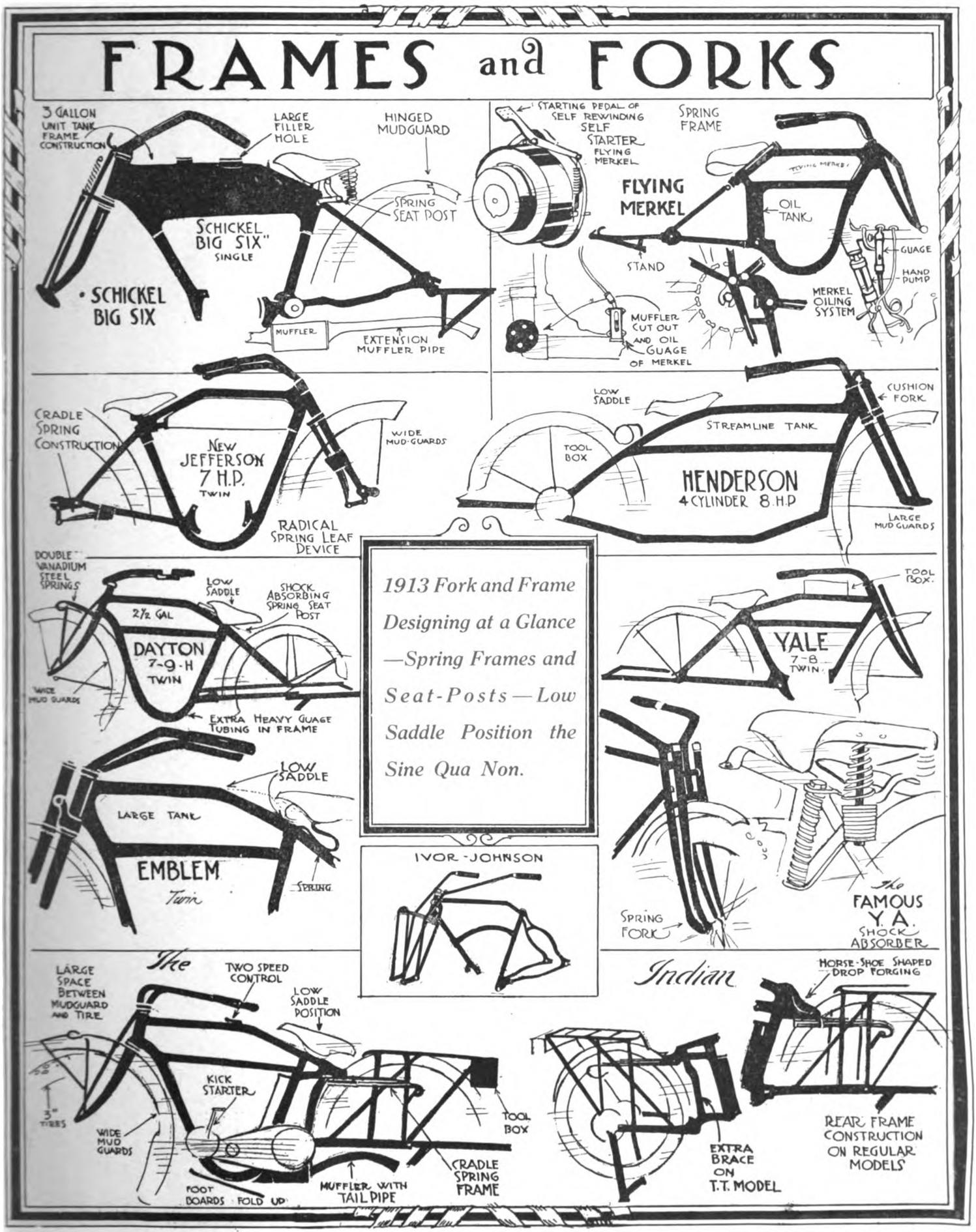

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1913 SPECIFICATIONS AT A GLANCE 1913

Name of Machine.	Model.	Name and Address of Manufacturer.	H. P.	Cubic Cap.	Transmission.	Type of Clutch.	Change Speed Gear.	Frame and Fork; Spring S. P.	Wheel-Base.	Carbureter.	Lubrication.	Tires.	Brakes.	Saddle.	Price.
A. M. C.....	Single	Allied Motor Corporation, Chicago, Ill.	4	30.50	V Belt	Eclipse	A. M. C.-2 speed	Spring fork; rigid frame	58 in.	Schebler	Sight feed	.....	Musselman	Troxel	$200
A. M. C.....	Single		4	30.50	Flat Belt	Eclipse	A. M. C.-2 speed	Spring fork; rigid frame	58 in.	Schebler	Sight feed	.....	Musselman	Troxel	200
A. M. C.....	Twin		7	61.00	Chain	Eclipse	A. M. C.-2 speed	Spring fork; rigid frame	58 in.	Schebler	Sight feed	.....	Musselman	Troxel	250
Black Hawk.....	A-1 & B-1	Black Hawk Motor Co., Rock Island, Ill.	4-5	30½	Chain or Belt	Mult. Disc	.....	Spring fork and seat-post	53 in.	Schebler	Mech. pump & gravity feed	Goodyear and U. S.	Black Hawk	Troxel	235
Dayton	Twin	Davis Sewing Machine Co., Dayton, Ohio.	7	60.92	Chain	Eclipse	.....	Spring fork & seat-post; rigid frame	57 in.	Schebler	Sight feed with hd. pmp.	U. S., Diamond, Goodyear, Continental, 28x3	Lester	Troxel	265
Dayton	Twin		9	70.62	Chain	Eclipse	.....	Spring fork & seat-post; rigid frame	57 in.	Schebler	Sight feed with hd. pmp.		Lester	Troxel	275
De Luxe.....	1	Excelsior Cycle Co., Chicago, Ill.	7	60.92	Chain	Eclipse	.....	Rigid frame, cradle spring fork	57 in.	Schebler	Sight feed with pump	Optional 28x2¾	Musselman	Troxel	275
De Luxe.....	2		9	70.62	Chain	Eclipse	.....	Rigid frame, cradle spring fork	57 in.	Schebler	Sight feed with pump	Optional 28x2¾	Musselman	Troxel	285
Eagle	Single	American Motor Co., Brockton, Mass.	5	35.31	Flat or V Belt	Eclipse	.....	Rigid frame, spring seat-post	58 in.	Schebler	Sight feed, aux. hand pmp.	28x2½	New Departure	Mesinger	235
Eagle	Single		5	35.31	Chain	Eclipse	.....	Rigid frame, spring seat-post	58 in.	Schebler	Sight feed, aux. hand pmp.	28x2½	New Departure	Mesinger	235
Eagle	Twin		9	70.62	Flat or V Belt	Eclipse	.....	Rigid frame, spring seat-post	58 in.	Schebler	Sight feed, aux. hand pmp.	28x2¾	New Departure	Mesinger	275
Eagle	Twin		9	70.62	Chain	Eclipse	.....	Rigid frame, spring seat-post	58 in.	Schebler	Sight feed, aux. hand pmp.	28x2¾	New Departure	Mesinger	275
Emblem	105	Emblem Mfg. Co., Angola, N. Y.	...	38.3	Chain or V Belt	Eclipse	.....	Cushion spring fork on all models	57 in.	Heitger	Sight force feed pump; auxiliary drip feed	Continental or Goodyear	Corbin or Eclipse opt.	Mesinger No. 3 or Troxel	175 Bat. 200 Mag.
Emblem	108		...	67.00	Chain	Eclipse	.....		57 in.	Heitger		Continental or Goodyear	Corbin or Eclipse opt.	Mesinger No. 3 or Troxel	250 Mag.
Emblem	110		...	76.6	Chain	Eclipse	.....		57 in.	Heitger		Continental or Goodyear	Corbin or Eclipse opt.	Mesinger No. 3 or Troxel	300 Mag.
Excelsior	7 C	Excelsior Motor, Mfg. & Supply Co., Twenty-second and Union sts., Chicago, Ill.	7-10	61	Chain	Eclipse	.....	Cradle spring fork, Kumfort Kushion seat-post	.....	Schebler	Auto. sight feed with aux. hand pmp.	2 rear; 2½ front	Corbin band or Musselman	Troxel; Persons opt.	250
Excelsior	7 B		7-10	61	Belt	Eclipse	.....	Cradle spring fork, Kumfort Kushion seat-post	.....	Schebler	Auto sight feed with aux. hand pmp.	2 rear; 2½ front	Corbin band or Musselman	Troxel; Persons opt.	250
Excelsior	4 C		4-5	30½	Chain	Eclipse	.....	Cradle spring fork, Kumfort Kushion seat-post	.....	Schebler	Auto. sight feed	28x2½ front and rear	Corbin band or Musselman	Troxel; Persons opt.	200
Excelsior	4 B		4-5	30½	Belt	Eclipse	.....	Cradle spring fork, Kumfort Kushion seat-post	.....	Schebler	Auto. sight feed	28x2½ front and rear	Corbin band or Musselman	Troxel; Persons opt.	200
Harley-Davidson ...	9 A	Harley-Davidson Motor Co., Milwaukee, Wis.	5	35	Protected Belt	Free-wheel	.....	Loop frame; Ful-Floteing seat	57 in.	Schebler	Semi-auto. vac. feed	Empire, U. S. or Goodyear 28x2¾ stud	Thor or Eclipse	Mesinger, Persons or Troxel	235
Harley-Davidson ...	9 B		5	35	Chain	Free-wheel	.....	Loop frame; Ful-Floteing seat	57 in.	Schebler	Semi-auto. vac. feed	Empire, U. S. or Goodyear 28x2¾ stud	Thor or Eclipse	Mesinger, Persons or Troxel	235
Harley-Davidson ...	9 E		8	63.34	Chain	Free-wheel	.....	Loop frame; Ful-Floteing seat	58½ in.	Schebler	Hand pump also on twin	Empire, U. S. or Goodyear 28x2¾ stud	Thor or Eclipse	Mesinger Persons or Troxel	285
Henderson.....	.....	Henderson Motorcycle Co., 1158 Cass ave., Detroit, Mich.	B	4-cyl. 8 h.	Chain	Eclipse	.....	Spring fork; cradle frame	65 in.	Schebler	Splash	U. S. 3 in.	Henderson band	Persons	325
Indian	7 Reg.	Hendee Mfg. Co., Springfield, Mass.	7	60.92	Chain	Multiple Disc	.....	Cradle-spring frame and forks	55 in.	Hedstrom 2-jet	Mech. and hand pumps	U. S. studded	1-Corbin V-band	Mesinger	250
Indian	4 Reg.		4	30.46	Chain	Multiple Disc	.....	Cradle-spring frame and forks	55 in.	Hedstrom 2-jet	Mech. and hand pumps	U. S. studded	1-Corbin V-band	Mesinger	200
Indian	7 Two-speeds		7	60.92	Chain	Multiple Disc	2-speeds sliding	Cradle-spring frame and forks	58 in.	Hedstrom 2-jet	Mech. and hand pumps	U. S. studded	2-Indian band	Mesinger	325

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.....	.... speeds					Disc	sliding clutch	and forks			.....				
Iver Johnson.....	Single	Iver Johnson's Arms & Cycle Works, Fitchburg, Mass.	4½	.....	V Belt	Iver Johnson cone	.....	Spring fork and frame, leaf type	56 in.	Schebler	Hand pump and splash with crankcase oil gauge	U. S., Goodyear, Goodrich, 28x2½ & 2¼	Corbin band	Persons and Mesinger	225
Iver Johnson.....	Twin		7½	.....	Chain	Iver Johnson cone	.....	Spring fork and frame, leaf type	56 in.	Schebler	Hand pump and splash with crankcase oil gauge	U. S., Goodyear, Goodrich, 28x2½ & 2¼	Corbin band	Persons and Mesinger	275
Jefferson	A 4	Waverley Mfg. Co., Jefferson, Wis.	4	30.47	Chain	Eclipse	.....	Spring frame	57½ in.	Heitger	Mech. and hand pump	Goodyear 29x2¼	Corbin	Troxel	225
Jefferson	A 7		7	60.94	Chain	Eclipse	.....	Spring frame	57½ in.	Heitger	Mech. and hand pump	Goodyear 29x2¼	Corbin	Troxel	275
M. M.	4-50	American Motor Co., Brockton, Mass.	4½	33.18	Flat Belt	Eclipse	.....	Rigid frame, coach spring fork	56 in.	Schebler	Hand pump	Optional 28x2½	New Departure	Mesinger	200
M. M.	Twin		8	66.36	V Belt	Eclipse	.....	Rigid frame, coach spring fork	58 in.	Schebler	Hand pump	Optional 28x2¼	New Departure	Mesinger	240
Marvel	.....	Marvel Motorcycle Co., Hammondsport, N. Y.	5	.....	V Belt	Eclipse	.....	Rigid frame, spring fork	.....	Heitger	Splash	28x2½	Eclipse	.....	...
Merkel	41	Miami Cycle & Mfg. Co., Middletown, Ohio.	4	30.44	Chain	Eclipse	.....	Spring frame and fork	55 in.	Schebler	Sight feed with auxiliary hand pump	Federal 28x2½ U. S., Goodyear	Musselman	Persons, Troxel or Mesinger	210
Merkel	70		7	60.89	V-Belt	Eclipse	.....	Spring frame and fork	55 in.	Schebler	Sight feed with auxiliary hand pump	Federal 28x2¼ U. S., Goodyear	Merkel band	Persons, Troxel or Mesinger	260
Merkel	71		7	60.89	Chain	Eclipse	.....	Spring frame and fork	55 in.	Schebler	Sight feed with auxiliary hand pump	Federal 28x2¼ U. S., Goodyear	Merkel band	Persons, Troxel or Mesinger	260
Merkel	45		4	30.44	Chain	.....	Planetary 2-speed in hub	Spring frame and fork	55 in.	Schebler	Sight feed with auxiliary hand pump	Federal 28x2¼ U. S., Goodyear	Merkel band	Persons, Troxel or Mesinger	285
Merkel	75		7	60.89	Chain	.....	Planetary 2-speed in hub	Spring frame and fork	55 in.	Schebler	Sight feed with auxiliary hand pump	Federal 28x2¼ U. S., Goodyear	Merkel band	Persons, Troxel or Mesinger	335
Pierce	13 B	Pierce Cycle Co., Buffalo, N. Y.	5	42	Flat or V Belt	Eclipse	.....	Tank-frame, rigid, with spring fork	54 in.	Schebler	Splash	U. S. 28x2¼	Corbin	Mesinger	250
Pierce	13 A		5	38	Flat Belt	Eclipse	.....	Tank-frame, rigid, with spring fork	54 in.	Schebler	Splash	U. S. 28x2¼	Corbin	Mesinger	225
Pierce	4-cyl.		7	44	Shaft	Multiple Disc	2-speed sliding	Tank-frame, rigid, with spring fork	66 in.	Breeze	Force feed and splash	U. S. 28x2¼	Pierce band and Corbin	Mesinger	400
Pirate	"A"	Milwaukee Motorcycle Co., 834-36 Muskego ave., Milwaukee, Wis.	5	33.5	Chain	Eclipse	.....	Spring frame and fork	55 in.	Heitger Special Model K	Sight feed and pump	Goodyear and Federal	Eclipse Multiple disc	Troxel	225
Pope	L	Pope Mfg. Co..... Hartford, Conn.	7-8	61	Chain	Eclipse	.....	Spring fork and rear spg. suspension	56½ in.	Schebler	Mech. oiler, aux. hand pmp.	28x2¼	Corbin V-band	Troxel No. 1	250
Pope	M		5	38	Chain	Eclipse	.....	Spring fork and rear spg. suspension	56½ in.	Schebler	Mech. oiler, aux. hand pmp.	28x2½	Corbin V-band	Troxel No. 1	215
Pope	K		4	30½	Flat Belt	Eclipse	.....	Spring fork and seat-post	56 in.	Schebler	Splash and hand pump	28x2½	Internal exp. coaster	Troxel No. 1	200
Pope.....	H		4	....	V Belt	.....	.....	Spring fork and seat-post	51 in.	Schebler	Splash	26x2¼	Internal exp. coaster	Persons Champion	165
Reading-Standard...	Service	Reading-Standard Co., 306-340 Water St., Reading, Pa.	4	30.50	Flat Belt	Eclipse	None	Spring fork and R-S shock absorber	55 in.	Schebler	Drip feed	Goodyear 2½x28	Corbin Eclipse New Departure	Troxel	200
Reading-Standard...	Belt Tourist		5	33.00	Flat Belt	Eclipse	None	Spring fork and R-S shock absorber	55 in.	Schebler	Automatic and drip feed	Goodyear 2½x28	R-S double brake	Troxel	225
Reading-Standard...	Chain Tourist		5	33.00	Chain-Drive Undergeared	R-S Cone Type	None	Spring fork and R-S shock absorber	55 in.	Schebler	Automatic and drip feed	Goodyear 2½x28	R-S double brake	Troxel	225
Reading-Standard...	Twin		7-8	66.00	Chain-Drive Undergeared	R-S Cone Type	None	Spring fork and R-S shock absorber	55 in.	Schebler	Automatic and drip feed	Goodyear 2½x28	R-S double brake	Troxel	275
Schickel	Single	Schickel Motor Company, 59 Garden st., Stamford, Conn.	5	30.20	1¾ Flat Belt	Idler	.....	Spring fork and seat-post	57 in.	2-jet with 1 adjustment	Injection, mixed with gasoline in tank	Goodyear 28x2¼	Corbin	Troxel	225
Schickel	Two stroke		5	30.20	Chain	Eclipse	.....	Spring fork and seat-post	57 in.	2-jet with 1 adjustment	Injection, mixed with gasoline in tank	Goodyear 28x2¼	Corbin	Troxel	230
Schickel	Big Six		6	42.40	1¾ Flat Belt	Idler	.....	Spring fork and seat-post	57 in.	2-jet with 1 adjustment	Injection, mixed with gasoline in tank	Goodyear 28x2¼	Corbin	Troxel	235
Schickel	Big Six		6	42.40	Chain	Eclipse	.....	Spring fork and seat-post	57 in.	2-jet with 1 adjustment	Injection, mixed with gasoline in tank	Goodyear 28x2¼	Corbin	Troxel	240
Scout	S. S.	Michigan Motorcycle Co., Detroit, Mich.	5½	30.50	V Belt	Eclipse	.....	Spring fork	62 in.	Heitger	Sight feed	Diamond or U. S. 28x2¼	Corbin	Standard	225
Thor	13 M	Aurora Automatic Machinery Co., Aurora, Ill.	4	30½	Thor Undergeared	Thor ball bearing disc	.....	Thor rigid truss spring fork	58 in.	Thor twin adjustment	Force feed mech. oiler	U. S. or Goodyear 2½	Multiple disc	Troxel	225*
Thor	13 W		5	38.8	Thor Undergeared	Thor ball bearing disc	.....	Thor rigid truss spring fork	58 in.	Thor twin adjustment	Force feed mech. oiler	U. S. or Goodyear 29x2¼	Multiple disc	Troxel	240*
Thor	13 U		7	61.00	Thor Undergeared	Thor ball bearing disc	.....	Thor rigid truss spring fork	58 in.	Thor twin adjustment	Force feed mech. oiler	U. S. or Goodyear 29x2¼	Multiple disc	Troxel	290*
Yale	35	Consolidated Mfg. Co., Toledo, O.	5-6	.....	Chain or Flat Belt	Eclipse	.....	Cushion fork; Y-A shock absorber	.....	Heitger	Mech. pump, aux. hand pmp.	Goodyear, U. S., Federal or Diamond	Corbin band or Eclipse	Troxel	225
Yale	37		7-8	60.92	Chain or V Belt	Eclipse	.....	Cushion fork; Y-A shock absorber	.....	Heitger	Mech. pump, aux. hand pmp.	Goodyear, U. S., Federal or Diamond	Corbin band or Eclipse	Troxel	275

*$40 extra on each model for two-speed.

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BLACK HAWK FEATURES

ROCK ISLAND PRODUCT
For
COMING SEASON HAS
TANK IN FRAME CONSTRUCTION
MULTIPLE DISC CLUTCH IN REAR HUB
IMPROVED SPRING FORKS
CHAIN OR BELT DRIVE
SPRING SEAT POST
&
DOUBLE LUBRICATING SYSTEM

IN the production of its 1913 model the Black Hawk Motor Co., of Rock Island, Ill., has aimed at symmetry, simplicity of mechanical design, ease of operation, power and durability, and the firm's announcement of its specifications for the coming season leads to the conclusion that these qualities have been achieved to an unusual degree. Consideration of the 1913 machine in detail brings to light a number of desirable changes and refinements over 1912 production, and promises well for sales activity on the part of the Rock Island firm.

The Frame Construction.

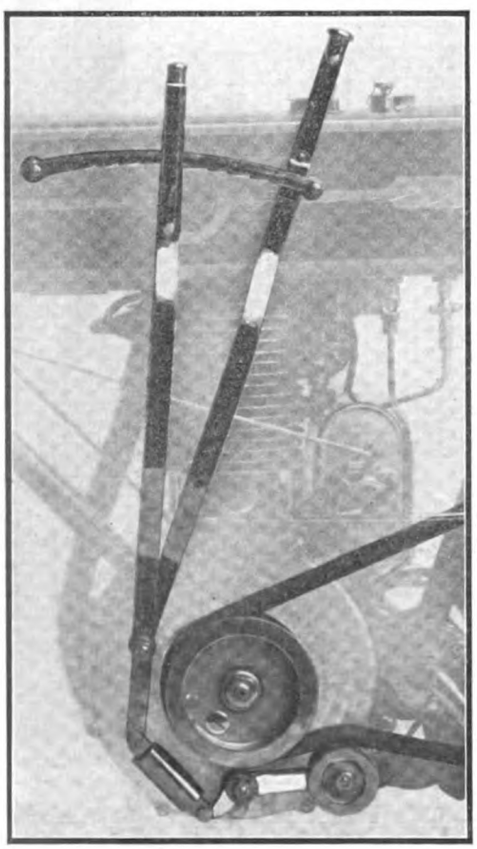
The tank on the Black Hawk machine is part of the frame, and is made of specially treated Shelby cold-drawn seamless steel tubing, one-sixteenth of an inch thick. In this way unusual strength is obtained, and the small tubing above and below the tank is eliminated; by the same token clips and fastenings for the tank are unnecessary, and the result is a marked improvement in appearance and service. In addition the company is fitting an oil tank that is leak-proof and practically indestructible. There are no seams to spread in case of a spill; all the fittings are put in by a special compression method which does away with soldering. The frame construction also permits of an unusually low saddle position, without sacrificing the frame lines. Perfect balance and ease in handling result from the low center of gravity.

In the designing of the Black Hawk, advantage has been taken of every point making for efficiency, and always with a view of overcoming the weaknesses to which the motor two-wheeler has shown itself susceptible. The company's designers have kept in mind at all times flexibility and reliability; in their opinion flexibility should be defined as meaning the ability of the motor to handle the machine at all speeds, from four to sixty miles, without the use of the clutch. Reliability, in the Black Hawk lexicon, implies a capability to travel hundreds of miles without the necessity for making adjustments or repairs, and the designers have convinced themselves that they have such a machine.

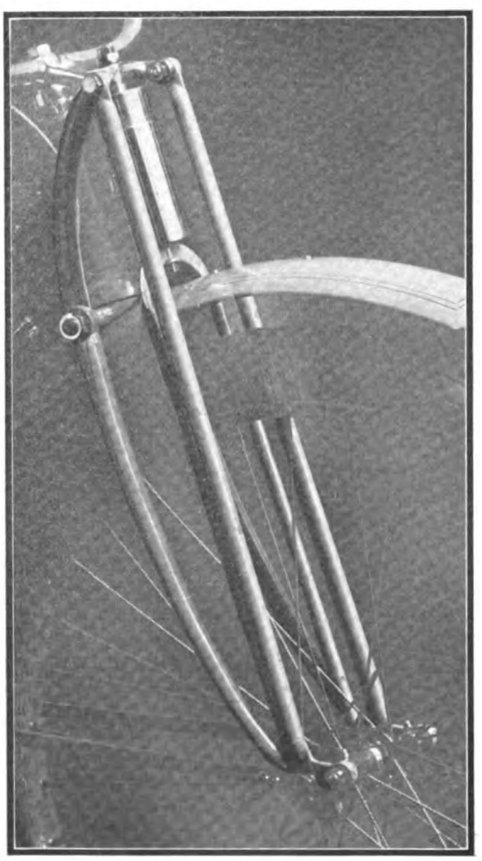
The Clutch Position.

The builders of the Black Hawk believe they have placed the clutch in the ideal position in locating it in the rear hub, combined with the coaster brake. The clutch is of the multiple steel disc type common to automobiles and has over 300 square inches of friction surface. This insures a smooth "getaway," without the necessity for racing the motor or stalling it. Tests have shown that there is no danger of the clutch slipping even at maximum speeds and in hill-climbing. Control of the clutch is by a lever placed beside the belt tightener. By placing the clutch in the rear the Black Hawk designers argue that they have improved the appearance of the power plant. The brake contained in the rear hub is sufficiently powerful to check the progress of the machine with a slight pressure of the foot, or to lock the rear wheel instantly in an emergency.

The neatness of design is further enhanced by the spring fork construction. The strong truss insures absolute safety of the rigid member, and the flexibility of the spring member of the fork practically eliminates annoyance from road shocks. The rocker arms are so hung that the spring tension is light enough to absorb small road inequalities, as well as the more disturbing jars. As the rocker arms swing upward under a shock the levers, combined with the compression of the springs, multiply the resistance so that it is impossible for the tire to strike the mudguard or for the springs to be compressed to the danger point. In the case of very heavy road shocks the rocker arm is at dead center before the tire can strike the mudguard, and further upward movement is thus checked. The load is



Black Hawk Idler System and Clutch Lever.



The Sturdy Spring Fork.

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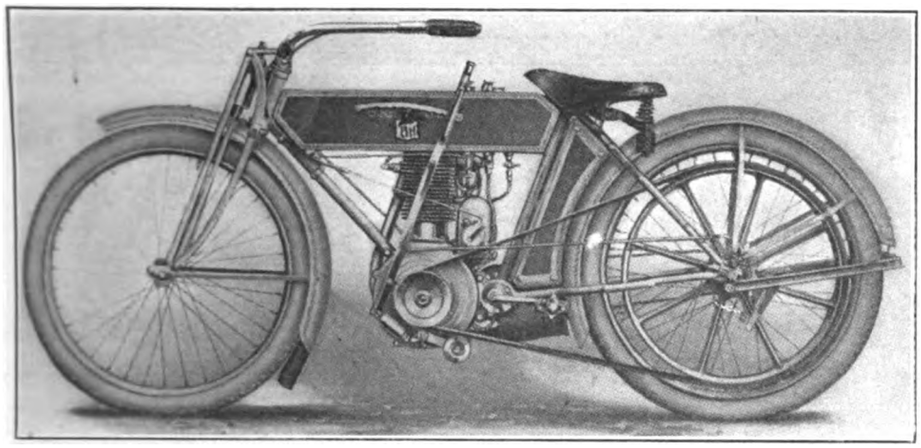


Transmission Side of 1913 Black Hawk.

then transmitted to the rigid fork members. The number of parts in the fork has been reduced to the minimum, thus making for long life.

Spring Seat-Post.

The spring seat-post is built on the same principle as the spring fork and is credited with remarkably easy riding. The movement of the saddle is directly up and down, there being no side motion or tilting to affect the rider's position while the machine is in operation.

Two lubrication systems are used in the Black Hawk, mechanical and suction feed. The mechanical oiler is unusually simple in construction, there being but one moving part, a piston which is driven by the intermediate gear. A small screw regulates the amount of oil, and can be set to give the desired result in an instant. The feed increases in direct proportion with the speed of the motor. There is a small glass in the pump so that it is possible to see the quantity of oil that is being fed at all times. In addition to this pump the suction system of oiling is provided for extreme speed work.

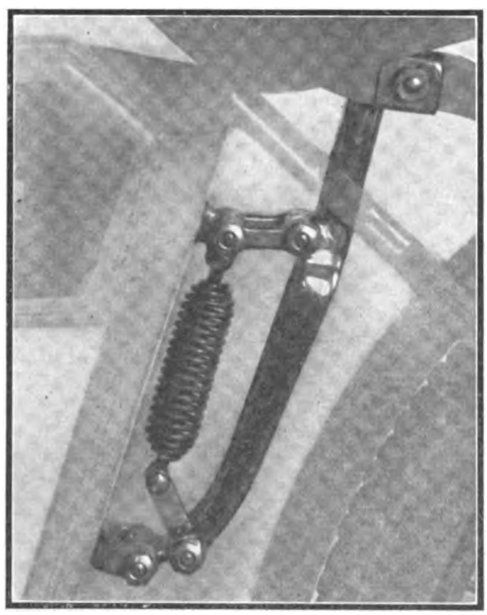
The idler is compact and the spring is contained in collapsing tubes. The distance between the center of the pulley and the pivotal point of the arm attached thereto is less than four inches, so that there is no danger of its getting out of alignment. If the machine is backed up the idler is held true and the belt is retained in its proper position. The pulley runs on ball bearings which can be adjusted in a few seconds by removing one nut and twisting the halves of the pulley in opposite directions. Tightening the nut locks the pulley positively.

Attention to Accessibility.

The grip control on the Black Hawk is by 16-gage piano wire, and the bends in the wire are long and gradual so that danger of breakage is reduced. However, in case of necessity, the wire can be withdrawn quite easily. The tool-box is made of pressed steel in halves and bolts into place. The muffler is built along the latest lines of silencer construction and is credited with being unusually efficient without exerting back-pressure. It is figured that the muffling process on the Black Hawk results in a loss of only two per cent. of power.

Special attention has been given to accessibility in the designing of the entire machine, and all the parts have been worked out with a view of avoiding mechanical complications. The lines are uniform and pleasing and the makeup of the mount in general is calculated to create a favorable impression.

The motor has a cubic displacement of 30.50 inches, the bore being 3¼ and the stroke 3 43/64 inches. The valves are mechanically operated; ignition is by Bosch armored mag-



Spring Seat-Post Feature.

neto and the Schebler carbureter is fitted. Transmission is by chain or endless flat Spartan belt, 1¾ inches wide; the brake is of the multiple disc coaster type; the wheelbase is 53 inches and 28-inch wheels are used; 2¾ studded Goodyear or United States tires may be specified, and the Troxel saddle is standard equipment. The weight is 190 lbs. and the finish is light gray, with dark panels and blue striping, with all bright parts nickel-plated. The 1913 Black Hawk lists at $235, f. o. b, Rock Island, Ill.

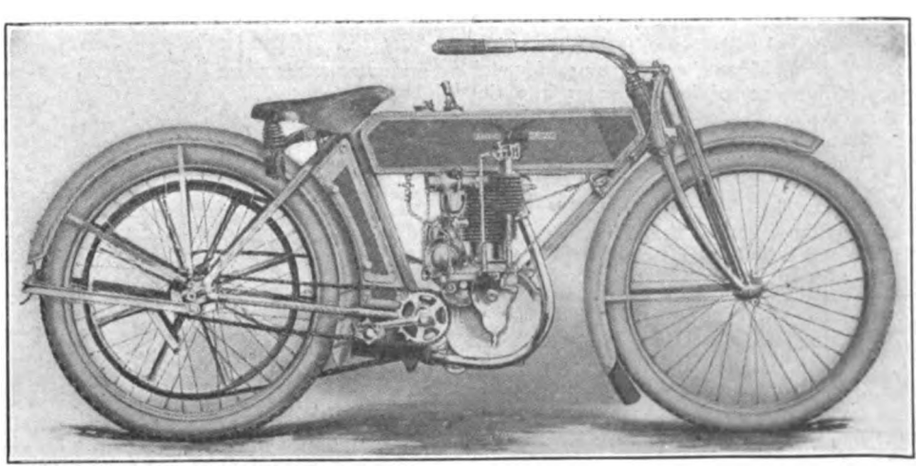
F. A. M. GAIN IN 1912.

CARD number 12,068 was the first one issued in 1912 by the F. A. M. The last card issued for the year was 19,467, showing an increase of 7,401 for the twelve months. Following is the year's membership growth by months: January, 402; February, 440; March, 625; April, 841; May, 986; June, 899; July, 939; August, 736; September, 530; October, 374; November, 330, and December, 290.

The gains in each state for December are given as follows: Maine—unaffiliated, 1; New Hampshire—unaffiliated, 1; renewal, 1; Massachusetts—affiliated, 2; unaffiliated, 1; renewals, 7; Rhode Island—unaffiliated, 1; Connecticut—affiliated, 1; unaffiliated, 1; renewals, 2; New York—affiliated, 12; unaffiliated, 7; renewals, 30; New Jersey—affiliated, 1; unaffiliated, 1; renewals, 2; Pennsylvania—affiliated, 8; unaffiliated, 1; renewals, 3; Maryland—affiliated, 5; unaffiliated, 2; renewals, 7; Virginia—unaffiliated, 1; West Virginia—unaffiliated, 1; Delaware—affiliated, 23; North Carolina—renewal, 1; Tennessee—unaffiliated, 1; Georgia—renewals, 2; Florida—affiliated, 1; renewal, 1; Arkansas—affiliated, 1; Texas—affiliated, 20; unaffiliated, 3; Kentucky—renewal, 1; Oklahoma—unaffiliated, 1; Ohio—affiliated, 13; unaffiliated, 8; renewals, 17; Indiana—affiliated, 28; unaffiliated, 2; renewals, 5; Illinois—affiliated, 75; unaffiliated, 10; renewals, 7; Missouri—affiliated, 2; renewal, 1; Wisconsin—affiliated, 1; renewals, 4; Michigan—affiliated, 1; renewals, 2; North Dakota—unaffiliated, 1; Nebraska—renewal, 1; Kansas—affiliated, 4; renewal, 1; Iowa—renewal, 1; California—affiliated, 17; unaffiliated, 19; renewals, 17; Utah—affiliated, 1; Colorado—renewals, 3; Arizona—unaffiliated, 1; Montana—affiliated, 4; Idaho—renewals, 2; Washington—affiliated, 3; Canada—renewal, 1; Panama—unaffiliated, 1.

THE OLYMPIA LIST.

OUT of 637 motorcycles exhibited at the Olympia Show in London, 235 were 2½ horsepower, 77 were six horse twins, and 33 eight horse twins. The 2½ and 2¾ machines totalled together 118, while the largest single was one of 6 horsepower used for sidecar work. The smallest twin was of 2½ horsepower, and the smallest single of 1¾. Only one 8-10 twin was shown.



1913 Black Hawk from Valve Side.

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STAGING the BIG SHOW

FEW spectators who visit Madison Square Garden and the Grand Central Palace during the big double motor show will have inclination or time for full appreciation of the artistic effects that have been achieved by the decorators, and it is safe to say that none will properly estimate the thought and ingenuity that have gone into the scenic plans. For weeks past painters and modellers have been at work on designs for the two show buildings, and the finishing touches are now being administered. As usual, an effort has been made to provide an entire change of scenic arrangement from previous displays, and reports are to the effect that the designers have been eminently successful. The decorative theme at the Garden provides for a "Crystal Palace," while the Grand Central Palace is being transformed into "The Palace of Versailles."

Every nook and cranny in both the Garden and Palace has been carefully considered in the plans and an idea of uniformity will be carried out so completely that the small spaces in the galleries, basement and platforms will receive the same attention as the exhibits on the main floors. The decorations for the Palace as well as the Garden will be more magnificent and costly than for any previous affair.

At each of the last two automobile shows held in the Garden, the interior was entirely reconstructed with huge galleries, which greatly increased the floor space in the building. These galleries extended out into the amphitheater twenty feet or more and were supported by huge steel girders and pillars. The entire construction was temporary and immediately the show was finished the balconies were disassembled. The same plan will be followed this season. It has been quite a feat of engineering to build this network of steel, clothed with floor boards. Originally wood beams were used to some extent in conjunction with the steel, but this season additional steel construction has been ordered so that no wood will be used other than that for the floors. More than 200 tons of metal and a million feet of lumber enter into the construction.

For the Madison Square Garden display, white and gold will be the dominant colors although green and crimson will be strongly in evidence. The girders of the big dome will be screened by a canopy of 5,400 yards of cloth of fluffy azure blue, amid which 7,700 tungsten incandescent lamps will twinkle. Twenty huge arc lamps and a number of crystal shades and "skirts" will be pendant from the roof. Fifty thousand feet of wire will be necessary to wire the building. Along the sides of the Garden, more than 5,000 feet of mirrors will be panelled and the reflection will greatly add distance to the machines on view. Lattice work will be more prominent this year in the structural treatment than was the case at last year's exhibition. Of an unusual design will be the mammoth crystal chandeliers which will be hung in the "sky" of the Garden. The chandeliers will be topped by natural foliage, which will entwine the strings of crystal through which light will radiate.

The exhibition spaces on the main floor of both the Palace and Garden will be carpeted with a specially woven fabric of light green, to lend something toward the effect of the cars being on the turf. More than 12,000 square yards of carpeting will be used. In the Garden the car exhibits on the elevated platform will also be carpeted with this fabric. At brief intervals along the sides of the elevated platform in the Garden, extending the length of the arena will be a number of ornamental lamp posts which will have the name of the exhibitors on their sides. Lettering on the posts will also inform visitors to various departments of the show.

Entering the arena at the Garden exhibition the visitors will be confronted by a Roman seat and fountain. The fountain forms the center of the seat, which is of a low abutment of gray stone and has a trow-like basin in which gold fish will disport themselves amid natural pond lilies, from which varied colored lights will radiate. In the Garden a wide balustrade will extend along the outer edge of the elevated platform, while the walls at the back will be covered with an imported cartridge paper of golden hue. In the general view there will be three balconies in the rear and in the front of the Garden, and but one on either side.

The exhibits of cars and accessories on the elevated platform will be separated by an aisle. The basement of the Garden will be similar in treatment to the other departments of the show. The Garden could appropriately have been named "The Garden of Nymphs," because of the fact that two score or more allegorical statues, representing nymphs, will support the elevated platform.

Nolan Diatyler, of the Lorain (Ohio) M. C., an enthusiastic motorcyclist despite his 240 pounds.

Grand Central Palace, which in itself is a beautiful building, will be decked in a most suitable setting. One hundred caen stone pillars, thirty feet high, will add a stately effect to the Corinthian architectural idea which is to be carried out. Lattice construction will play a very important part in the treatment of the Palace. The lattice work will be painted green, which color will blend with the other colors used in the decorations. Along the walls of the building interior will be several thousand square feet of scenic paintings, depicting picturesque views taken in all parts of the country. By a stretch of imagination a visitor to the Palace can think he is in the center of a mammoth palace with landscapes stretching away for miles beyond. Such will be the effect. A marble exedra will be the piece de resistance at the rear of the interior. "Old Abe," an eagle on a wheel will again be in evidence.

TANDEM FIGHT CONTINUED.

IN view of the fact that the National Capitol M. C. has decided not to accept the concessions offered by the authorities at Washington regarding tandem riding, another meeting was held on January 8 to discuss the furtherance of the campaign of protest. A number of dealers have been appointed to receive contributions for the campaign. They are as follows: Harry W. Bigham, John S. Barryman, Phillip M. Corr, George W. Beall, Thomas N. Mudd, Osborn & Leisheer, Howard A. French, Haverford Cycle Company; Frank Hazelton, National Sporting Goods Company, and Harry F. Seemark.

LONG WEDDING TOUR.

HAROLD A. STEWART, of Indianapolis, Ind., who for some time has been employed by the Scarborough Map Company as a pathfinder, will leave San Francisco, on February 6, for China. Mr. Stewart and his bride, Miss Marie Bancroft, will make a tour of the world and expect to cover most of the distance on a motorcycle. They count on the trip requiring two years.

DELIVERING BOOKS.

STILL another use for the motorcycle has been found in Los Angeles. They are used there by the public library officials in delivering books to the fourteen different branches in the city. The library board has found this system of delivery to be a good one and recommends it to other cities where the transportation of books is left to the express companies.

SUCCESSFUL P. O. SERVICE.

MOTORCYCLES are being used in the special delivery department of the San Jose (Cal.) post office.

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AN AMERICAN AT OLYMPIA

IMPRESSIONS OF THE RECENT ENGLISH SHOW

OBTAINED AT FIRST HAND BY ONE WHO IS FITTED TO MAKE

INTERESTING OBSERVATIONS AND COMPARISONS

AS THE RESULT OF LONG EXPERIENCE WITH THE MOTORCYCLE TRADE

SURELY the right way to start a description of the English Olympia Show is to state that it was the biggest and best ever. In the number of machines on exhibition, in the perfect attention to detail, in the amount of space used, and in courtesies extended to visitors, the show was certainly the best that I have ever seen. I had entertained real doubts as to whether it would compare with our own shows, in the number of machines, or in any other way, and I stood in amazement when I entered the main door and got my first sight of the exhibition. The entire building was one mass of lights in many colors, and the decorations were far superior to anything ever shown in the States. I believe the manner in which the show was lighted had the effect of showing off the machines and their splendid finish in a way that nothing else could have done.

Variety in Decorations.

One feature of the exhibition that appealed to me quite strongly was the full scope that was allowed exhibitors in regard to decorations, etc. I believe the great variety in this line added much to the interest shown. Every exhibitor had plenty of space, and, in addition to this, all manufacturers had a good-sized private office in the rear of the building, which permitted them to hold private conferences with customers, and do any amount of entertaining in the line of refreshments, etc., that they wished. In the gallery the parts makers had their extra space in the rear of their exhibits. This feature appealed very strongly to me and I believe it would be well worth considering in American exhibitions.

One naturally expects to find a good finish on show machines, but in this direction our English brethren had us beaten a mile. The machines were as nearly perfect as it is possible to make them, and I felt rather ashamed of the finish on the several American machines shown, as only one of them compared at all with the English makes.

Everybody seemed to have worked out all the details connected with his exhibit in good shape. There was an ample supply of catalogues and printed matter, which went more into detail in regard to construction, etc., than anything I had previously seen.

Visitors Were Well Posted.

One point with reference to the crowd made quite an impression on me, and that was the thorough manner in which visitors seemed to be posted on the mechanical features connected with the machines. It was a real pleasure to hear the conversation between a customer and a salesman, because of the decidedly clever mechanical objections the prospective buyer would raise in regard to the different features.

I believe that fully 40 per cent. of the crowd was made up of ladies, and the manner in which they discussed the various points of the machines was surely an eye-opener. They seemed to know as much as the men did concerning equipment. I presume this is caused by the fact that practically every English machine is equipped with a sidecar.

Practically all of the leading motorcycle manufacturers, in addition to their regular line, showed a line of cyclecars. Judging from the great interest shown by the public, I believe there is going to be a large sale of this type of car on the other side.

Not Impressed by Cyclecars.

I could not see anything about them, however, that would appeal to the American trade. They are decidedly clever in many respects as to construction, etc., but they are too small for practical work. They do not compare for a moment with the Ford, Overland or any other of the small American cars. The construction is extremely light and the horsepower very low, not running in any case over 10 h. I do not believe they would stand up for a week on American roads. They will be a success on English road perhaps, but I am led to believe they are more or less of an experiment.

The price of the cyclecar varies from $425 to $725. Very few manufacturers had made any quantity of cars; in nearly every case the sample cars were all they had to show the public. I understood they were promising deliveries in about three months, and they have reported plenty of orders. Knowing how conservative the English manufacturers are in all of these matters, I was certainly very much surprised to find a new article like the cyclecar making such a large showing.

The majority were four-wheel machines, but several manufacturers showed machines with two wheels in the front and one in the rear. Naturally one expected to find lots of sidecars, but not nearly as many as were shown. All of the manufacturers had from one to three machines fitted with varying types. The prospective customer certainly had a large variety to choose from, as there were no less than eight manufacturers showing sidecars exclusively.

Canoe-Shaped Sidecar Popular.

The canoe-shaped body seemed to have the run over other types. Several manufacturers showed sidecars having complete tops and side-door, the same as an automobile. All of the motorcycle manufacturers who are in the bicycle game showed a large number of bicycles gotten up in very nice shape. I was surprised to find that the public seemed to show little or no interest, however, in bicycles.

The question one naturally asks is, Will the motorcycle in the States supersede the bicycle, as it seems to be doing in England?

The attendance was equal to any automobile show that we have ever held. On Wednesday it was almost impossible to get around at all. They reported thirty thousand paid admissions, in addition to passes issue. One of the leading manufacturers claimed that the attendance was a trifle over thirty-eight thousand for a day. I believe the low admission fee of 25 cents, or one shilling, had a great deal to do with the large attendance.

The English Braking System.

The English fashion of two brakes, which is required by English law, seemed to me just a little absurd, although I believe, frankly, that this is caused by the fact that the brakes used are insufficient, the ordinary type of machine using a fibre block against the rear belt rim. I believe that, with the adoption of higher powered machines, they will use the American style of a coaster brake.

Conversations with prospective buyers convinced me that the English purchaser of a motorcycle buys a machine more as a permanent investment than does his American cousin. There does not seem to be the thought of changing models from year to year.

Summing the whole thing up, I believe that we have quite a little to learn from our English friends in the manner of working out the final details, but I believe, on the other hand, that we are quicker to make the necessary changes.

[The above article was prepared by the sales manager of a manufacturing firm recognized as one of the most active in the American motorcycle field. It was written shortly after the official's return from London, and is therefore especially interesting as outlining up-to-date British tendencies from the American viewpoint.—Ed.]

SHELBYVILLE ELECTION.

THE following officers were elected at the recent organization meeting of the Shelbyville (Ind.) Motorcycle Club: Rollyn Barnes, president; Hallard Payne, vice-president, and Edgar Kirsh, secretary-treasurer.

A MOTORCYCLE club was recently formed in Piqua, Ohio, under the name of the Harley-Davidson M. C.

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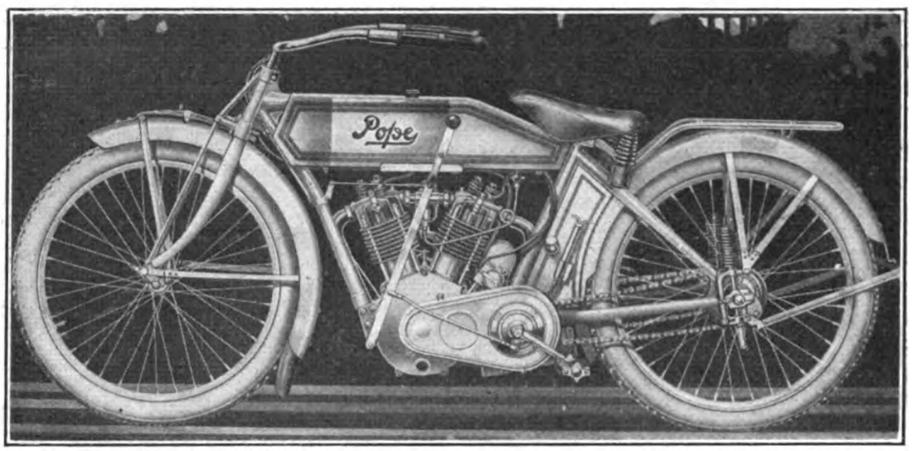
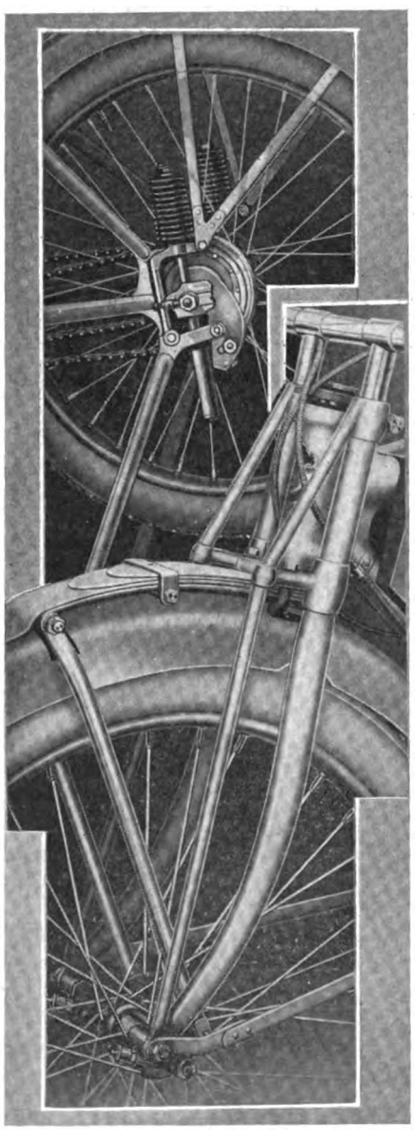
STURDY TWIN COMPLETES POPE LINE

FOUR attractive models round out the motorcycle line of the Pope Manufacturing Company for 1913, these types being so designed as to meet the requirements of every branch of service. The models are listed as L, M, K and H. Models L and M are chain driven, and the former is a twin, rating at 7-8 h. and selling for $250. Model M is a single-cylinder machine, rating at 5 h., which sells for $215. More than a year has passed since the Pope company began the construction and testing of these two models, and they have now taken their places beside models H and K, the single-cylinder, belt-driven machines, that have given good accounts of themselves under widely varying trial conditions. Models H and K, 4 h., sell at $165 and $200.



Model L, the Powerful New Chain-Driven Pope Twin.



Rear Spring Suspension on Models L and M and Front Fork Construction of the Pope.

The 7-8 h. Pope motor used on Model L has a bore of 3 21/64 in., and stroke of 3½ in, thus giving a cubic displacement of 61 in. The power plant is built by the Pope company in its Westfield factory, and is the outcome of exhaustive tests. It has generous bearing surfaces throughout, and is secured in the frame at four points. The cylinders are of high-grade gray iron; the cylinders and heads are separate, annealed to eliminate casting strains and bored and ground to size with the utmost care. The cooling flanges are designed to present nearly double the cooling surface on the heads as compared with some other motors of this general type. The heads are removable for cleaning without disturbing the other parts.

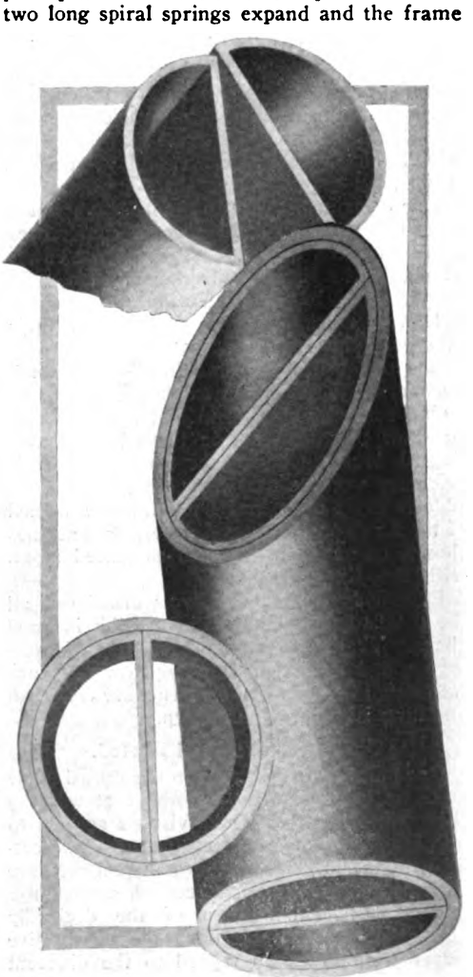
The valves are mechanically operated, and are made of high-grade nickel steel, drop forged, with stems integral. The intake and exhaust valves are interchangeable and are located in the head to permit of quick and complete scavenging of the motor. The valve operating mechanism is so constructed as to require only slight exertion on the grip control to raise the exhaust valve in starting. The camshaft and cams are of nickel steel, forged integrally. The pistons are accurately ground and embody oil grooves to insure proper lubrication. The connecting rods are of high-grade nickel steel, heat treated.

Rear Spring Suspension.

The main phosphor bronze bearings are of generous size, machined and ground, and the magneto driving shaft is carried on Hess-Bright annular ball bearings, in dust-proof cases packed with grease. The Eclipse free-engine clutch is fitted.

Double D tubing reinforcements extend throughout the entire length of the front reach tube in the frame, and the Keystone type, double-tube frame is adhered to. The long dropped top bar affords a low saddle position. The front forks are of the double, four-leaf spring type, with improved rocker plate construction.

The rear springing is on the suspension principle. When the rider occupies the saddle two long spiral springs expand and the frame



Sectional Views of Pope Tubing Showing Heavy Reinforcing System.

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is suspended on the springs. As the rear wheel strikes a road obstacle the axle is lifted, causing the guide rods to push up and expand the spiral springs so that the shock is absorbed. The springs are compact and still sufficiently strong to meet the requirements of heavy traveling.

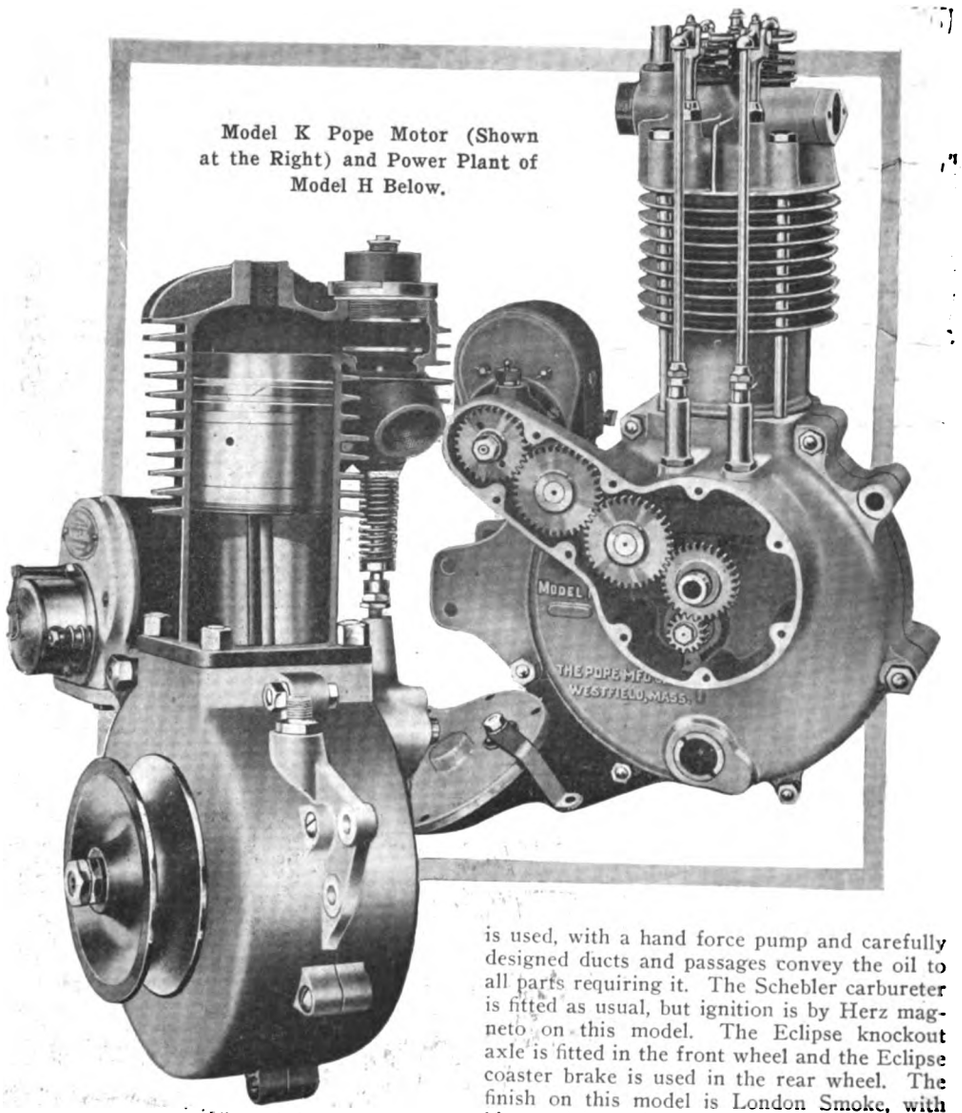
Lubrication is by a mechanically operated oiler, worm and gear driven from the motor shaft, and there is an auxiliary handpump for emergency use. A window in the side of the crankcase shows the oil level at all times. The Schebler carbureter is standard equipment, as is the Bosch armored magneto.

Other Specifications.

The gasoline tank embodies two units, each holding 1½ gallons, and so constructed that they may be used independently or as one. The fillers are extra large and there are independent pet-cocks for drawing off gasoline. The oil tank, holding two quarts, is in combination with the tool-box. A double grip wire control system is used, the right grip operating the throttle and exhaust valve lift and the left controlling the spark. Transmission is by chain, with guards protecting the sprockets and driving agent. The pedal and rear driving chains are interchangeable and adjustable. The wheels are 28 in. with combination 2¾ and 3 in. single-clinch rims. Wheel-base is 56½ in. and there is 5½ in. clearance. One of the new features is the eccentric crankhanger; a chain adjustment is made by loosening a clamping device at the bottom of the crankhanger. The mudguards are 4⅜ in. wide and fitted with side aprons throughout their entire length. The Corbin ball-bearing front hub is used with knockout axle, and the Corbin "V" band coaster brake is fitted in the rear wheel. New Troxel saddle No. 1 is furnished, the stand is of an improved design. United States 28 in. by 2¾ in. tires are fitted and the handlebars have been changed in shape. The gear ratio is 4 to 1; optional, 3.76 or 3.52 to 1. Color, Pope gray, with bright parts heavily nickeled.

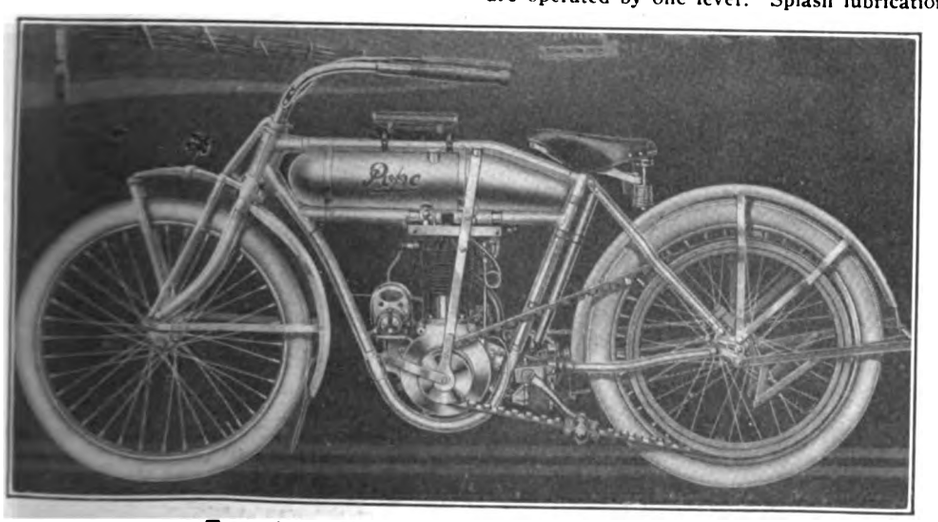
Model M, 5 H. Motor.

The single-cylinder motor fitted to Model M has a bore of 3⅝ in. and stroke of 3 11/16 in., giving a cubic displacement of 38 in. Transmission is by chain, as in Model L, and all the other specifications of the latter apply to Model M except that 28 by 2½ in. tires are fitted instead of the 2¾ in. size used on the twin. The gear ratio on Model M is 4.93 to 1; optional, 4.30 or 5.21 to 1.



Model K Pope Motor (Shown at the Right) and Power Plant of Model H Below.

Model K has a 4 h. single-cylinder motor; bore 3 21/64 in., stroke 3½ in.; piston displacement, 30.50 cubic inches. Offset cylinders are used; the cylinder and head are separate castings of gray iron. The motor has the valves in the head, mechanically operated. Transmission is by 1¾ in. endless flat belt, and the combination idler and free engine clutch are operated by one lever. Splash lubrication is used, with a hand force pump and carefully designed ducts and passages convey the oil to all parts requiring it. The Schebler carbureter is fitted as usual, but ignition is by Herz magneto on this model. The Eclipse knockout axle is fitted in the front wheel and the Eclipse coaster brake is used in the rear wheel. The finish on this model is London Smoke, with blue striping edge with gold, and all bright parts are heavily nickeled as usual. United States 28 by 2½ in. tires are supplied. Aside from the motor one of the most important differences between this machine and the 5 h. Model M is that Model K does not embody the rear spring suspension feature.



Transmission Side of Model H, the Light Road Type.

Details of Model H.

In the 4 h. motor fitted in Model H the bore is 3 in. and the stroke 3 11/16 in. The valve chamber and cylinder are cast integral and deep flanges are afforded to assist in cooling. In this model the frame is of the loop type, thus differing from the frames used in the other three types; the reinforcing is unusually heavy and all joints are given special attention. In lubricating the oil is forced by handpump to the base of the crankcase where it is thrown up on the cylinder walls and on the piston, and thence carried by ducts to all moving parts. As in Model K the Herz magneto is used. The mudguards on Models K and H are 3¾ in. instead of 4⅜ in., as on Models L and M. Model K has the Eclipse knockout front axle and the Eclipse coaster brake in the rear wheel. The gear ratio is 4.6 to 1; optional, 4 to 1. Transmission is by a Spartan leather V belt, the Persons Champion saddle is fitted and the tires are 26 by 2¼ in. The regular gear ratio on Model H is 4¼ to 1; optional, 4⅔ to 1; with Eclipse clutch, 4⅓ to 1.

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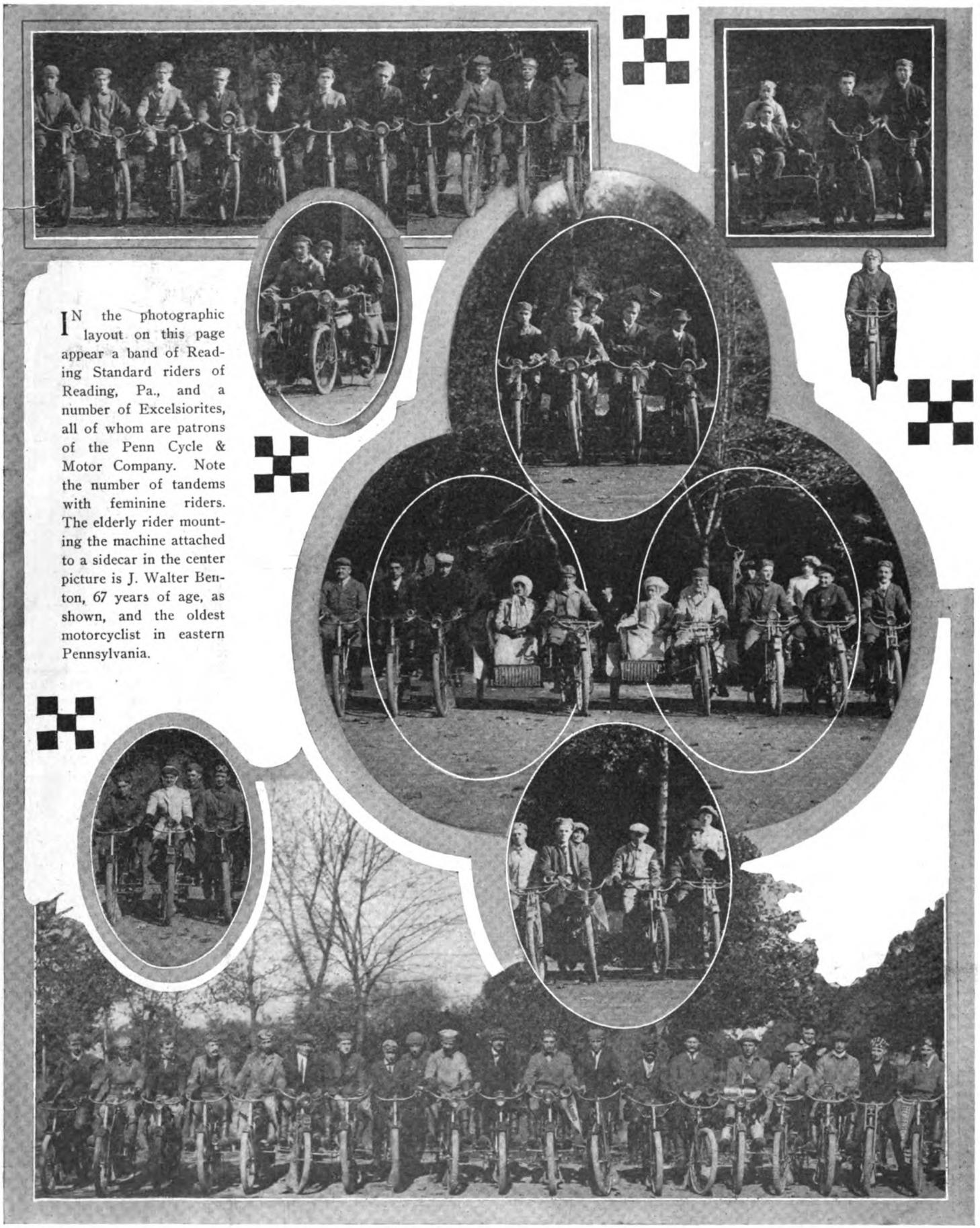

IN the photographic layout on this page appear a band of Reading Standard riders of Reading, Pa., and a number of Excelsiorites, all of whom are patrons of the Penn Cycle & Motor Company. Note the number of tandems with feminine riders. The elderly rider mounting the machine attached to a sidecar in the center picture is J. Walter Benton, 67 years of age, as shown, and the oldest motorcyclist in eastern Pennsylvania.

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IMPROVEMENT CONTEST PRIZE WINNERS

First Prize of $50 Won by J. R. Paddock, Jr., of East Orange, N. J.

STANDINGS of the twelve highest contestants in the Improvement Contest, based on the point system for which the governing table is reprinted on page 39.

	Necessity and Desirability.	Safety, Comfort, Convenience.	Adaptability.	Mechanical Perfection.	Reliability.	Manufacturing Cost.	Durability.	Simplicity.	Neatness.	Total Points.
1—J. R. Paddock, Jr., East Orange, N. J.	24	14	10	9	9	9	7	6	5	93
2—Phillip L. Allison, Burson, Cal.	23	14	9	10	10	7	8	7	4	92
3—E. F. Phelps, Bridgeport, Conn.	24	14	9	9	9	8	7	6	5	91
4—C. W. Bergman, Alpine, Mich.	23	14	8	9	10	7	8	7	4	90
5—Ralph W. Green, Modesto, Ill.	21½	11	10	9	10	9	7	7	5	89½
6—A. C. Cameron, Riverside, Ill.	20	12	10	10	10	9	7	7	4	89
7—Roderick G. Drysdale, Westfield, Mass.	20	12	10	9	10	8	8	7	5	89
8—J. W. Ritchie, Spokane, Wash.	20	12	10	9	10	7	8	7	5	88
9—Victor Perry, Batavia, N. Y.	20	14	10	8	10	8	7	6	4	87
10—Charles Chickering, Philadelphia, Pa.	20	12	10	8	9	9	7	6	5	87
11—Thomas O. Wansleben, Washington, D. C.	19	14	10	8	10	8	7	6	5	87
12—B. T. Ellis, Baltimore, Md.	20	14	10	8	9	9	7	6	4	87

WITH the publication of designs in the December 26 issue of MOTORCYCLE ILLUSTRATED, the first improvement contest ever conducted by an American motorcycle journal came to a successful close. Upwards of 200 suggestions were received by the editors of the contest, of which about three score and ten were published in various issues of this paper. The contest demonstrated that the readers of MOTORCYCLE ILLUSTRATED are gifted with a technical knowledge with which the average manufacturer would hardly have credited them. In fact, so keen was the competition that the judges found it necessary to draw some very fine distinctions in order to determine the prize-winning proposals. The task of picking out the lucky contestants has been carefully and conscientiously done, however, and it is the confident belief of the contest editors that their decisions will meet with general approbation.

The Prize-Winners.

First prize, $50 in cash, goes to J. R. Paddock, Jr., of East Orange, N. J., who submitted a most ingenious mechanical oiler. Paddock scored 93 out of a possible 100 points. The second prize, $25 in cash, is won by E. P. Phelps, of Bridgeport, Conn., whose oiling system scored one point less than that submitted by Paddock. The third prize winner is Philip L. Allison, of Burson, Cal., who gets $15 for a very clever design for a three-speed gear. C. W. Bergman, of Alpine, Mich., with a two-speed device in a unit power plant is adjudged the fourth prize of $10. Eight others, whose names are given on the next page, submitted suggestions which the editors considered deserving of honorable mention.

As stated in the announcement of the contest, the value of each idea was gauged by a point system, in which all the possible attributes of a motorcycle improvement were rated in proportion as they approximated perfection, as follows:

Necessity and desirability	25 points
Safety, comfort and convenience	15 points
Adaptability	10 points
Mechanical perfection	10 points
Reliability	10 points
Manufacturing cost	10 points
Durability	8 points
Simplicity	7 points
Neatness	5 points
Total	100 points

In adjudging the prize winners, those who undertook the task had no trouble in deciding that practical designs embodying such important improvements as in lubrication and change speed gears were deserving of a high scoring as regards their necessity, desirability, safety, comfort and convenience. No design scored all of the forty points which would have been credited to it had it been perfect in these qualifications. The four prize-winning suggestions were as nearly perfect in these particulars as could have been expected. In fact, however, it will be noted by reference to the detailed tabulation of the best twelve scores that the differences between the highest four are very slight, the margin of points between the four prize-winning scores being but three.

Many competitors submitted suggestions and designs which scored almost perfectly with respect to their adaptability, mechanical perfection, reliability, manufacturing cost, durability, simplicity and neatness. But many of these suggestions, while valuable as a minor improvement, lost points on the first two units of 25 and 15 each because of their necessarily limited general value. There is no question, however, that adaptations of many of these ideas will be found in American motorcycles, their parts and equipment. Although it cannot be said that the results of the contest were at all sensational, it has proven beyond question that it is an excellent thing to bring manufacturers and riders in touch with one another in this attractive and interesting way. Under the circumstances, another improvement contest will be inaugurated by MOTORCYCLE ILLUSTRATED in the near future If it is as successful as the first one has been, a contest of this or similar character will be conducted annually through the columns of MOTORCYCLE ILLUSTRATED.

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BEST TWELVE IMPROVEMENTS DESCRIBED

AUXILIARY OIL PUMP

A POSITIVE oiling system which will feed oil according to the speed of the motor, and regularly, instead of at intervals, is here shown; it is adaptable to any motorcycle. All working parts are easily reached for adjustment and the cost of manufacture would be low. The impulse piston is operated by the motor piston, moving to the left on the suction stroke and to the right on the compression, firing or exhaust stroke. As soon as a "working" stroke has been completed, the return spring forces the impulse piston to the left again. Within the pump body is fitted the oil piston, forming part of the impulse piston. When the latter is moved to the left by the spring, the oil piston draws a charge of oil through the supply pipe, unseating the upper ball valve. When the piston moves to the right, the upper ball valve closes and the lower one opens, the oil being sent into the chamber having the oil delivery valve and pressure valve at opposite ends The rider can regulate the amount of oil in this chamber by the pressure regulating valve, there being a by-pass for returning surplus oil to the tank The drop through the sight-feed is regulated by the delivery valve. By adjusting the stroke regulating valve, the pressure (from the cylinder) on the impulse piston can be adapted to suit the running of the motor. Contributed by J. R. Paddock, Jr., East Orange, N. J.

THREE-SPEED GEAR

A THREE-SPEED bottom-bracket or countershaft-mounted gear, with selective control, is suggested in illustration No. 2 as satisfactory for use on passenger and solo mounts. The chain from the motor sprocket leads to the clutch body J, on which is mounted a sprocket. The clutch shaft is prolonged through the gear box and is squared, two sliders with pin teeth (A and B) being mounted on this square portion. Loose on this shaft are gears C, E and G. Meshing with these gears are D, F and H, which are fixed on a countershaft. To C is attached a sleeve, which surrounds the clutch shaft and carries the final drive sprocket K on its outer end. Each gear on the clutch shaft is pierced with holes to accommodate the pin teeth on their respective slider. Thus slider A has its teeth entering into gears C and C., while slider B has its pin teeth into G. The holes are shown in the section of gear C. For the high speed A is moved so that its teeth engage with gear C. The drive is direct from J to K, the shafts being locked together. For the second speed, slider A is moved to engage gear E; the drive is through clutch shaft, gear E, gear F, gear D and gear C to sprocket K. For the low speed, slider A is in neutral and B is engaged with gear C. The drive is from clutch shaft through gears G, H, D, and C to sprocket K. All gears not engaged on the clutch shaft run idly. The ratios are: High, 3:1; second, 5:1; low, 7:1. The gear change and clutch levers are mounted within a sector of the selective type on the frame of the motorcycle. The clutch lever is at L and the gear change lever at M. When M is moved into slot 1 the low gear is engaged, and when placed in slots 2 and 3 the second and high are respectively engaged. Contributed by Phillip L. Allison, Burson, Cal.

POSITIVE OILING

TO insure positive oiling of the motor bearings, pistons and rod-ends, a combination pump and sight-feed system is suggested in drawing No. 3. The crankcase of the motor has fitted to it a pump or well A, from which oil is drawn by a pump D, operated by the motor. A lead E from D goes to three feeds G, each feed being fitted with a sight-glass. Lead F goes to the rear of the cylinder, and oils the piston, while leads H are for the main bearings. Within the pump is a standpipe J, projecting into the crankcase and regulating the height of the oil therein into which the flywheels dip. This standpipe is provided with a hollow and ports K give communication with the interior of the pump L is the oil level in the crankcase and M the outlet to the pump D. A drain plug is fitted to J at C. Contributed by E. F. Phelps, Bridgeport, Conn.

UNIT POWER PLANT

THE crankcase in this unit power plant houses the two-speed gear and clutch, as well as the flywheel, crank and crankarm. F is the crankpin, G the single flywheel, and H the gear driving the valve train. On the extension of the crankshaft is keyed a set of gears A and C, which are in constant mesh, respectively, with gears B and D on the countershaft. A clutch or other device J enables either of the gears B or D to be clutched to the countershaft and thus drive the machine by a chain over sprocket K. The high speed is through gears C and D, while the low speed is through A and B. Contributed by C. W. Bergman, Alpine, Mich.

GASOLINE STRAINER

A GASOLINE strainer is shown in illustration No. 5. It is to be attached directly to the carbureter. B is a brass tube, one inch in diameter and six to eight inches long. A is a chamois-skin strainer held to the part D by nuts, etc. The skin is bent downward as at F to prevent leakage past it. G is the connection to the gasoline tank, and H the screwed connection to the carbureter. E is the base-cap and is integral with D. The fitting is shown in the main view where M is the carbureter and S the fuel shut-off cock. Contributed by Ralph W. Green, Modesto, Ill.

A COMBINATION STAND

A FRONT-WHEEL stand, acting as stand and crankcase guard, is shown in drawing 6. The left hand view shows the bottom (or front) view of the stand, which hinges at H and has a foot at B. There are hinges to the forward part of the crankcase, protecting the front of the case from shock and the sides also by diagonal braces. The full lines show the wheel off the ground when tire repairs are needed on the road and preserves the front tire from supporting the motorcycle when in the garage. The manufacturing cost is small and the design is adaptable to any machine. Contributed by Alan C. Cameron, Riverside, Ill.

FRONT WHEEL STAND

FRONT-WHEEL stand, fitted in the same manner as the regular rear stand. Drops behind the front wheel and raises the machine when pulled backward. Useful when front tire needs attention and in garage, keeping both tires off the floor. Shoulder on front of leg fits under axle pin when stand is in service. Contributed by Roderick G. Drysdale, Westfield, Mass.

A GASOLINE GAUGE

DRAWING No. 8 shows a gasoline gauge fitted to the tank. A glass tube is fitted into a recess in the tank where it is protected from damage in case of shock. Contributed by J. R. Ritchie, Spokane, Wash.

VARIETY OF IMPROVEMENT

DRAWING No. 9 shows a combined front wheel stand and mudguard brace, a starting crank directly on the engine shaft, and footboards with frame running to the rear axle ends. A combined foot-brake and clutch control is also shown. The rear mudguard has continuous sides which are hinged. A sight feed oiler fed by a gear-pump and a celluloid windshield attached to the handlebars complete the list. Contributed by Victor Perry, Batavia, N. Y.

A GASOLINE FILTER

ONE of the vital necessities to the rider, particularly he who tours, is a gasoline filter or strainer. One such device with a settling chamber is here shown, the filtering medium being a chamois disc S. The device consists of two chambers, A the filter chamber and B the settling chamber. B has a removable cup G and a rod F which projects into the passage E and holds a steel ball off its conical seat. Gasoline enters from the tank at C, passes through A and S to P which is connected to the carbureter. On removing cup G, the ball seats itself, closing E, and any water or dirt can be removed from G without leakage from A or interruption of the flow of gasoline to the carbureter. On replacing the cup, the ball is lifted and B again acts as a settling chamber. Contributed by Charles R. Chickering, Philadelphia, Pa.

ENCLOSED DRIVE

AN enclosed drive, with chain running in oil and case readily removable to replace and adjust chains, protects the rider and transmission likewise. A detachable rear mudguard permits of the tire and wheel being quickly repaired, and is essential where a tandem or carrier is fitted. Fastenings are by wing-nuts and slotted lugs. When the valve mechanism is enclosed, wear is saved and the motor is kept free from oil, etc. Lubricating oil tanks should occupy the forward compartment of the main tank, keeping the rider clean and enabling observation and ease of operation of the hand-pump. Large oilers are used on front and rear hubs. Contributed by Thomas O. Wansleben, Washington, D. C.

FOLDING MUDGUARD

CONTRIBUTION No. 12 was forwarded by B. T. Ellis, of Baltimore, Md. It provides for a folding rear mudguard. When the guard is in normal position a lock bar extends across the break and is fastened by thumb nuts; when the lower section of the guard is to be folded upward the thumb nuts are loosened and the lock bar is swung clear of its end fastenings when the guard is free to move as desired.

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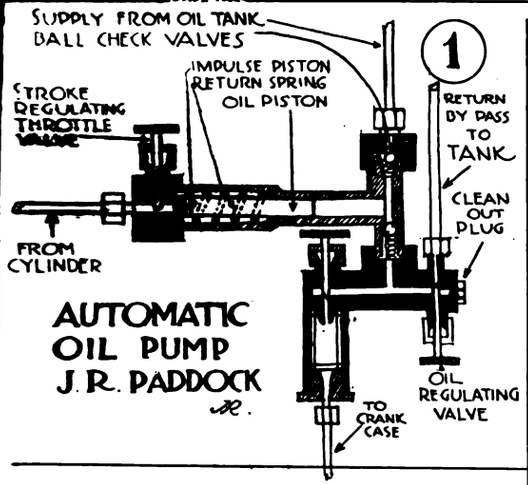
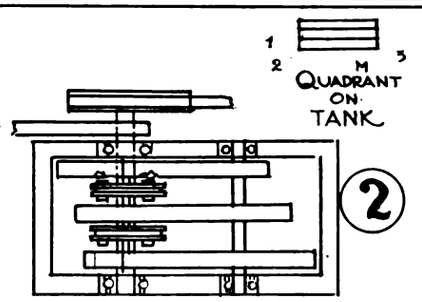
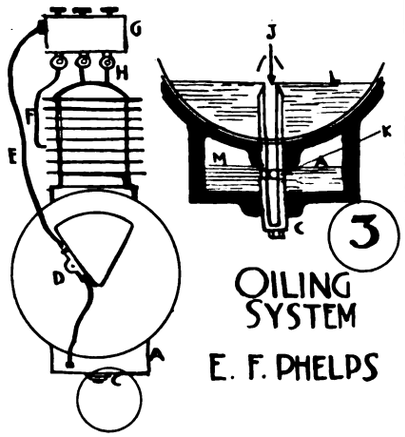


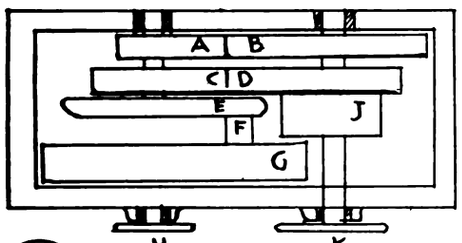
AUTOMATIC OIL PUMP
J. R. PADDOCK



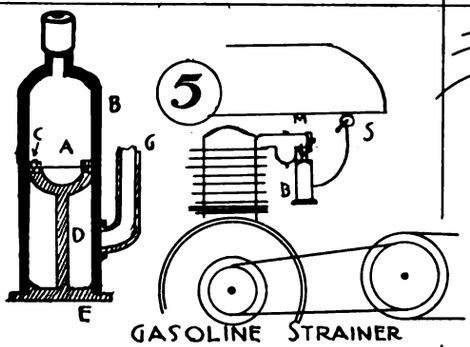
THREE SPEED BOTTOM BRACKET GEAR
PHILLIP L. ALLISON
BURSON- CAL



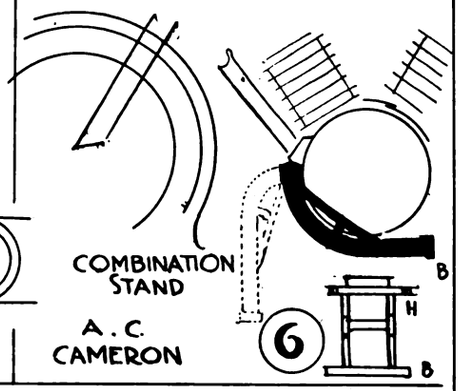
OILING SYSTEM
E. F. PHELPS



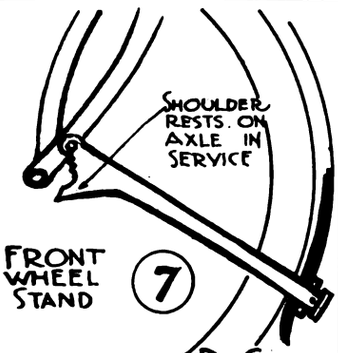
4 C. W. BERGMAN



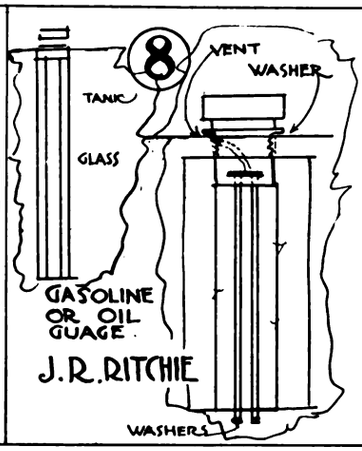
GASOLINE STRAINER
RALPH. W. GREEN



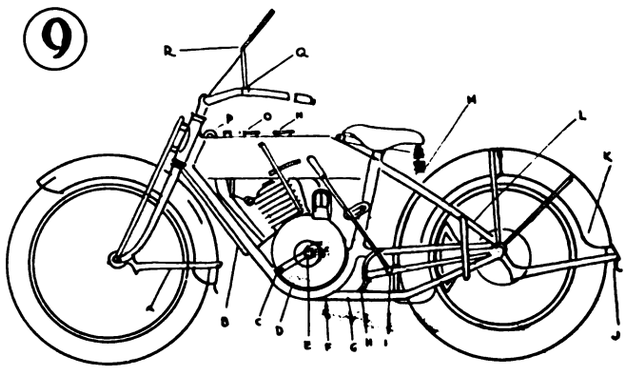
A. C. CAMERON

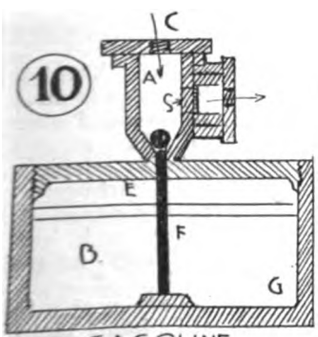


R. G. DRYSDALE

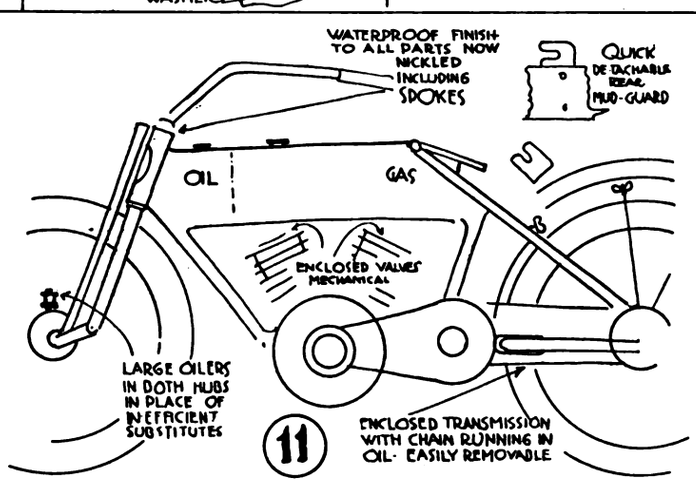


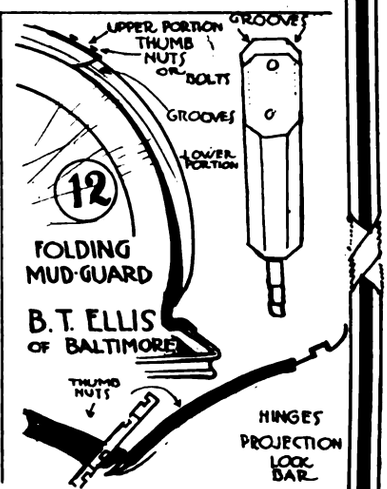
GASOLINE OR OIL GUAGE
J. R. RITCHIE





GASOLINE FILTER
WITH SETTLING CHAMBER FOR MOTORCYCLE SERVICE
CHAS. CHICKERING





FOLDING MUD-GUARD
B. T. ELLIS OF BALTIMORE

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DEBUT of the MICHAELSON

THREE TWO SPEED MODELS MAKE UP LINE OF NEWLY ORGANIZED MICHAELSON MOTOR COMPANY A SINGLE GENERATING OVER 6. H. A TWIN RATED AT 10-13. H. AND A DELIVERY VAN OUTFIT

TWIN UNIT POWER PLANT A NOTEWORTHY FEATURE

BACKED by six years' experience in the manufacture of two-speed motorcycles and possessed of a keen insight into the requirements of riders in general, J. M. Michaelson, who was prominently identified with the Minneapolis Motorcycle Company from its organization, has now decided to blaze his own trail and as a result the Michaelson Motor Company, of Minneapolis, Minn., has been incorporated, with capital stock of $200,000. The formal announcement of the new company is to the effect that it will market a 5-6 h. single, a big 10-13 h. twin and a tri-car delivery van. These machines will be equipped with an improved two-speed transmission and multiple disc clutch, enclosed and running in oil. It is the avowed intention of the Michaelson company to embody in its models only such features as have amply demonstrated their worthiness.

Mr. Michaelson announces that he has designed and thoroughly tried out a new motor during the last year, and that it meets all his expectations. The Model 5A he considers especially adapted for everyday business service, which will not demand a speed greater than 55 m. p. h. He states that his motor has developed 6½ h. on an actual brake test, and that it has shown remarkable flexibility and ease in starting.

An Iron-Clad Guarantee.

Large, heavy flywheels give smooth running in the new Michaelson motor, and also permit of slow speed. The machine throughout is so well balanced that riders have operated it in tests at remarkably low speed with their hands free of the bars. The multiple disc clutch and two-speed gear in Model 5A are the same as are used in the big twin. The clutch has shown itself reliable and capable of long service. In heavy going the clutch lever on the handlebar gives the rider complete control of his mount without the necessity for removing his hands from the grips. This model combines attractive lines with a low saddle position, and a spring seat-post is a noteworthy feature for the comfort-seeker. The standard color will be dark red, with striping. The company places special emphasis on the fact that each machine will be covered by an iron-clad guarantee.

The Model 10A motor has shown 13½ h. on brake test and is credited with being just a little larger in piston displacement than any other motorcycle motor on the market. The two-speed gear in this model is provided with an ample margin of strength to withstand the unusual strain to which it will be subjected. This model follows the graceful lines of the single type, but carries 3-inch tires, front and rear, with plenty of clearance for tire chains.

The Tri-Car Delivery Van.

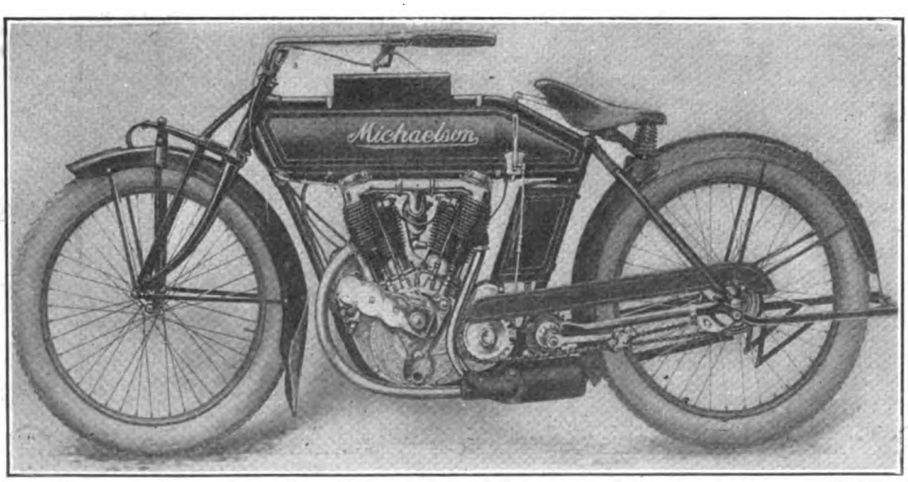
Realizing that the coming season is bound to bring an unprecedented demand for delivery vans, the Michaelson company is producing an attractive commercial vehicle. It has been designed with special regard for long service, simplicity and ease of handling in traffic. The two-speed transmission and clutch permit of perfect control in congested streets, and also make for dependability on hills and in suburban service. The van itself is unusually sturdy and capacious, and it is stated that weaknesses that have developed in the past in connection with such designs have been carefully guarded against.

The box is 40 inches long, 24 inches wide and 24 inches high, and is fitted with double doors on top. The frame is of heavy gauge Shelby steel tubing, and drop forged steering knuckles are provided. Twenty-eight inch wheels are fitted, with a 3-inch tire on the rear and 2¾-inch tires in front. United States or Goodyear tires may be had. The road gauge of the van is 42 inches. The outfit has a capacity, exclusive of the rider, of 300 lbs., and is capable of traveling 35 miles an hour. It is listed at $375, f. o. b., Minneapolis.

Unit Power Plant.

The new Michaelson twin-unit power plant is counted upon to create a lasting impression. An extension of the motor base forms a housing for a countershaft on which is mounted the two-speed gear. Compound gears connect the drive shaft and the countershaft; the disc clutch is mounted on the main drive shaft. Countershaft and intermediate gearing, as well as the main shafts, are mounted on annular ball bearings, and accurate tests show a loss of only 4 per cent. throughout the entire gearing. The complete mechanism is enclosed by an oil-tight cover. Non-fluid transmission grease is used for the transmission and clutch, so that once the lubricant has been supplied no further attention need be given the mechanism for months. An oil window is provided in the crankcase.

Each motor has a bore of 3½ and stroke of 3¾ inches. The twin motors are tested for 13½ h. before they are passed. Mechanical overhead intake valves are used, and the exhaust valves are 1⅞ inches in diameter; all push rods are adjustable. The cylinders have wide thin flanges to facilitate cooling. A 1½-inch exhaust pipe is fitted to assist in rapid elimination of the gases. The Schebler 1-inch automatic carbureter is especially adjusted to this motor, and ignition is by Bosch magneto. A mechanical oiler is embodied in the left base, and a hand pump is also provided for emergency use. Special attention has been given to lubricating.



New Michaelson Twin, Rated at 10-13 H.

The Two-Speed Gear.

The rocker arms on the intake dome are enclosed

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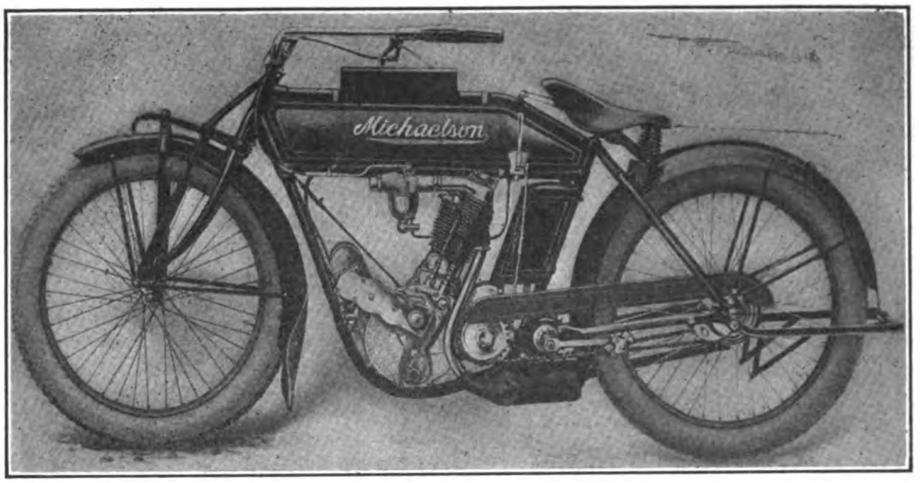
with caps which keep out dust and grit; a little cotton saturated with oil is enclosed within the caps so that the rocker arm bearings are properly lubricated for a considerable time. The cylinders are nickel-plated and polished as are other exposed parts.

The gears in the Michaelson two-speed gear all have eight pitch teeth with ¾-inch face, and are large in diameter so that they are afforded additional strength. The main bearings are of the annular ball type. The compound idler gear has wide phosphor bronze bearings, and its lubrication is adequately cared for. On high gear the drive is direct through the countershaft and the compound gear runs idle. On low gear, the drive is through the compound gear, and the reduction is 2 to 1. High carbon steel only is used in every part. The gearcase is packed with transmission grease, sufficient for one season or more.



5-6 H. Michaelson Single; Unit Power Plant.

Other Specifications.

Control is by twisting grips, the right grip operating the spark and the left controlling the throttle and exhaust valve lift. The gasoline tank has a capacity of three gallons and the oil tank holds one gallon. A gasoline priming pump is fitted in combination with the gasoline filler cap. An improved cradle-spring front fork is fitted; the leaf springs are 2½ inches wide and of highly tempered chrome vanadium steel, The wheelbase is 58 inches. Model 5A has 2¼-inch tires, front and rear, and Model 10A has 3-inch tires on both wheels; the tri-car tires have already been specified. The Eclipse multiple disc brake or Corbin band brake are optional. Mesinger or Troxel saddles may be specified.

Model 5A lists at $275 f. o. b., Minneapolis; Model 10A at $325 and the tri-car outfit, as before stated, at $375. The company will furnish 3-inch tires on Model 5A for $2 extra and a luggage carrier for $3 extra.

AN APPEAL FROM BROOKLYN.

IN a letter received a few days ago J. A. Hall, of Brooklyn, N. Y., argues that the 1913 F. A. M. National Meet should be held in Brooklyn. A. H. Patterson, one of the leading dealers of the City of Churches, who has probably done more than any other individual of that city for the general good of the sport, and P. Warlick, a prominent member of the Invincible M. C., of Brooklyn, are also striving to induce the F. A. M. Directorate to consider Brooklyn for the annual session.

"One of the main reasons," says Mr. Hall, "why the meet should be held in Brooklyn this year is because 1913 marks the tenth anniversary of the F. A. M. Ten years ago this coming Labor Day, the F. A. M. was organized in Brooklyn, and in my opinion it would be an altogether fitting means of celebration to hold the meet at the birthplace of the organization. As far as amusements are concerned, it is a well-known fact that no city is better fitted than Brooklyn. The Brighton Beach motordrome would be an ideal place for races, and the popular Long Island speedways would afford excellent riding I would also suggest that the F. A. M. publicity committee send out literature proclaiming next Labor Day as a National F. A. M. Day, and let it so be recognized throughout American motorcycledom."

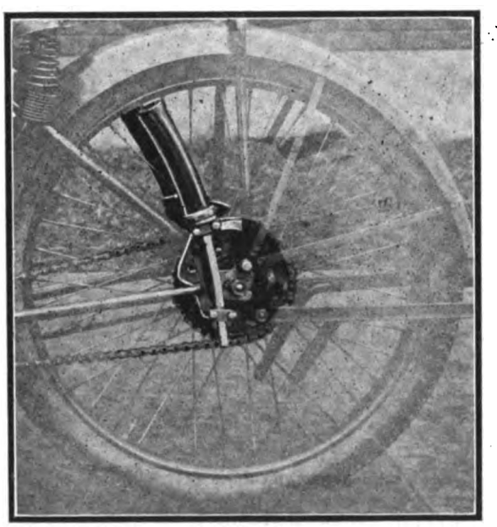
HELD NEW YEAR'S RUN.

CLEVELAND, O., January 3.—A run to Geneva and return was held by the Cleveland M. C. on January 1. This was the first of the quarterly runs, and a large number of the members participated. The schedule called for 20 miles per hour, which, on account of the mud and slush, was difficult to maintain. Those finishing with perfect scores were: W. J. Norton (Indian); Raymond Ray (twin Merkel), and E. Hawkins and Herman Sill, riding Thors. R. S. McConnell acted as referee.

IN a recent letter Secretary Gibson of the F. A. M. states that the parcels post is open to the motorcycle.

REDMOND SHOCK-ABSORBER.

MOTOR PARTS COMPANY, of Detroit, Mich., are bringing out the Redmond shock-absorber, which is adaptable to any motorcycle, and is shown herewith. The device is patented by C. A. Redmond, and is attached to the rear construction of the machine, the



frames forming loops on each side of the rear hub axle, which plays up and down within them. Each frame carries a spring cylinder at its upper portion, and in this cylinder works a pistion to whose rod is attached the fork carrying the hub axle. It is to be understood that there is one cylinder and loop on each side of the machine. The rod and cylinder are curved so that the motion will be in the arc of a circle whose center is at the pedal shaft bracket, and free movement will only be governed by the springs, rubbing friction being reduced to a minimum by this form of curved cylinder and piston. The device clamps to the rear fork and to the slider fork on each side, and there is a brace-bar passing over the wheel for the elimination of side play. The transmission is always kept at the same tension, while the rear wheel has the desirable "cradle effect." A stand is furnished with the complete device, which will retail at $15 complete, ready to fit.

TOUGHER GOODYEAR TREAD.

ANY construction that tends toward giving longer life to motorcycle accessories is much to be desired, especially with the increase in power, weight and speed of the 1913 machines as compared with those of last season. In the realm of tires, to this end, the Goodyear Tire & Rubber Company, of Akron, Ohio, are furnishing a tougher tread on their motorcycle products for the new season, but the fabric will not be changed, it having been found more than amply strong for even the increased strains brought about by the new motorcycle constructions. This action on the part of the makers of the Goodyear product is in keeping with their policy in keeping their tires more than equal to the conditions which confront them in all lines in which tires are used.

Goodyear motorcycle tires sales in the past season were five times those of 1911, and with an increase of 50 per cent. In the number of motorcycles manufactured, not to mention renewals, the increase over both 1912 and the previous season is figured upon as very substantial.

TWO-COLLECTOR SYSTEM.

PATENT number 1,047,573, granted to Max Schafer and Robert Wagner, Stuttgart, Germany, on an application filed April 9, 1912, has been assigned to the firm of Robert Bosch, also of Stuttgart. The claim specifies a two-part collector ring with a brush for each part and a distributer for use with multiple cylinder engines. The distinguishing feature is that there are two collectors.

ELYRIA, O.—W. C. Robbins, of the firm of Cook & Robbins, Indian dealers in Elyria, died from injuries sustained when he was struck by a train on December 11. Mr. Robbins was well known throughout his section of the state.

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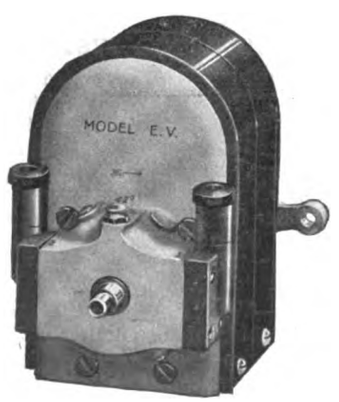
TWO NEW SPLITDORFS

WATERPROOF MAGNETO MODELS for 1913 MOTORCYCLE SERVICE SHOW MARKED IMPROVEMENTS "EU" AND "EV" TYPE FOR SINGLE & TWIN MACHINES RESPECTIVELY

IN keeping abreast of the rapid development of the motorcycle field during the last year or two manufacturers on all sides have come to appreciate fully the importance of dependability in their products, and the policy of working for serviceability at every turn has been applied with special care to the manufacture of ignition fitments. This is exemplified in two 1913 products of the Splitdorf Electrical Company, waterproof magneto types that have been designed with particular regard for the requirements of single and twin-cylinder motorcycles.

Front View; Single Cylinder Type.

Following their highly successful methods of producing a spark plug which is recognized as "standard" because of its simple perfection, the Splitdorf Electrical Company is manufacturing its new magneto types along lines calculated to attract wide attention. The new models are known as "EU" and "EV," for single and twin-cylinder machines, respectively. Both are of the enclosed type, and special emphasis is placed upon the company's announcement that they are waterproof, as well as oil and mudproof. Exhaustive tests of the new magnetos under every imaginable weather



Back View; Twin Cylinder Model.

condition have convinced the company's designers that no machine fitted with one of them will fail to hold its own through ignition trouble.

The Policy of Protection.

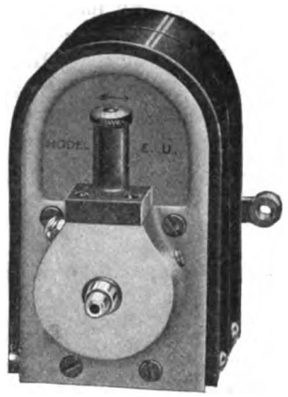
In no details is the policy of adequate protection more apparent than in the brush-holder and cable connection. The cable is easily detachable and a skirted terminal plug makes a waterproof connection, the dissembling of which is simplicity itself. No special screw-driver is required, the terminal plug being removable without touching the brush-holder which is, itself, easily detached while remaining thoroughly waterproof. This construction and other features, are the subjects of patent applications.

Aluminum is used for the base, end plates and cover, and the combination of lightness with strength effects the happiest possible solution of a motorcycle difficulty. The pole pieces are made from steel of high permeability and are rolled according to a special formula of the Splitdorf Electrical Co. Magnets are of Styrian Tungsten steel, of the highest quality, and produce a hot spark at both low and high motor speeds. The magnets are encased in an aluminum cover, strongly ribbed, with the ends turned over the edges of the end plates to exclude water.

The Centrifugal Circuit-Breaker.

The armature is composed of laminations of the highest grade electrical iron, and the windings have been so designed as to make easy starting a certainty. Ball bearings with oil cups are a detail of the general plan for efficiency. The centrifugal circuit breaker—a notable feature of the Splitdorf instruments—revolves with the armature shaft and embodies a breaker-arm, pivoted in such manner that the action of centrifugal force quickly brings the contact points together and minimizes the strain on the actuating spring, thus producing a harder and more positive contact.

On one end of the breaker-arm a fibre roller is fitted and this is provided with four changeable wearing surfaces. Each one of these will last 1,000 miles or more, and each

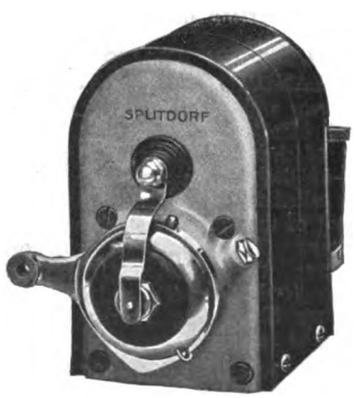


Rear of Single Type.

can be brought into action by simply turning the roller a quarter turn in the proper direction. These features are covered by U. S. Letters Patents.

Instructions for Cleaning.

The contact points are of high quality iridium-platinum of ample wearing surface. They are accurately set at the factory, but can be easily adjusted by loosening the lock-nut on the platinum screw and turning up the same until the points separate 1/50 of an inch, when the roller rests on the cam surface. This distance will give the best results, as



Twin Model; Front View.

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there is very little wear on the points, owing to the improved condenser absorbing any burning action of the primary current.

The carbon brushes will last a long time, as the collector ring is highly polished. It should be cleaned from time to time by removing one of the high tension brush holders and inserting a clean piece of cloth, on the end of a lead pencil. It is only necessary to saturate the cloth with gasoline and turn the armature over. At the same time, care should be exercised in replacing the terminal and tightening up the three screws carefully to make a perfect joint, a waterproof gasket being provided for this purpose.

Questions and Answers

(Other answers are held for the January 23 issue, owing to the pressure of show matter.)

SIDE-BY-SIDE MOTORS

LEON GIBSON.—The side-by-side arrangement of cylinders is not original, but has probably never been constructed in such high-powered cylinders up to the present time. One of the pioneers in motorcycle construction, Werner, in 1904, brought out the first twin motor for motorcycles (except the Butler of 1897) with the cylinders arranged side by side. Another was the Bercley, of English make, which appeared and disappeared about 1906. For tri-car work several European firms produced special models with this cylinder arrangement as recently as 1908. The chief exponent of this type of motor is the French Alcyon, a T-head air-cooled twin of 2½ horsepower. The bore is 1.84 inches, and the stroke is 2.82 inches, about 15.2 cubic inches total piston displacement. This model first appeared in 1910 and is continued to date.

The Curtiss three-cylinder motor of 10 horsepower had the third cylinder between the other two, and was fitted with two carbureters. One supplied the middle and one end cylinder, and the second made gas for the remaining cylinder. The firing sequence, as far as could be learned at the time, was 0-315-720-990. There were three revolutions necessary to fire all the cylinders in succession. It was not as successful as its designers wished, and was discontinued. The only other three-cylinder motorcycle motor on these lines was the Buchet, of French make, which appeared in 1905-6. It is no longer made.

"ESTIMATING MILEAGE."

JOHN T. REMEY.—The formula given is not intended to be an exact, academic one correct to fractional cubic inches or even leages, as the caption should tell you. It was developed from John Batey's formulae of the theoretical estimated mileage, and answers one of a numerous batch of inquiries about how many miles per gallon such and such a motor can make. Quite a number of factors, naturally, determine whether the formula is accurate or not; some of these are dependent on the manufacturers of the machine and carbureter, while others are dependent on the rider himself.

We must necessarily assume *D* as a constant no matter what the speed, if we are to get a type of formula such as the one under discussion. To go into detail for exactness we would be obliged to treat each individual motor by itself, a rather difficult undertaking for us when the machine is on the Pacific coast. For a more correct exposition of the relation of volume to inlet aperture (throttle opening) consult such works as Heldt's "Gasoline Automobile," Güldner's "Internal Combustion Engine," etc.

NEW YORK TO MADISON.

C. L. CHINNOCK.—We presume that you mean to go in the spring; we cannot advise such a tour at this time of year. Referring to our Touring Number, take route 40, New York to Princeton, N. J., 50.9 miles. From Princeton go through Lawrenceville, then through Trenton. Cross the Delaware river and pass through Oxford Valley, Langhorne, La Trappe, Bustleton, Fox Chase, and Ogontz to Philadelphia (City Hall). The distance from Princeton is 46 miles. Take route 61, to Gettysburg, Pa., 118.5 miles, and route 53, Gettysburg to Hagerstown, Md., 33.3 miles. Here join route 99, and go on to Pittsburgh, Pa., a distance 183 miles.

From Pittsburgh, take route 145 to Cleveland, Ohio, 139.8 miles; then route 104 to Toledo, 116.3 miles. Follow route 125 next to South Bend, Ind., 171.3 miles, and from South Bend follow route 160 reversed to Chicago, 113.8 miles. From Chicago follow route 174 reversed to Madison, Wis., a distance of 149.1 miles. For hotels, etc., consult the Automobile Blue Books, vols. 3 and 4. Figure on $2.50 to $3.00 per day for board and room.

DULUTH TO CHICAGO.

GEORGE NOWAK.—From Duluth go across to Superior, then go on through Allouez, Itasca, Rockmont, Hawthorne, Bennett, Solon Springs, Gordon, Minong Spooner, to Shell Lake, 82.4 miles, varying roads. From Shell Lake go next to Barronnett, then to Cumberland and Barron, 34.1 miles, clay roads. Go on to Barron Prairie Farm, Wheeler and Menominee, 50.9 miles, varied roads. From Menominee go on to Eau Claire via Elkmound, 25.3 miles, some sand. From Eau Claire go to La Crosse, via Brackett, Whitehall, Ettrick, Frenchville, Decora Valley, Holmen and Onalaska, 86.2 miles good clay roads. This is route 192 (Touring Number), in reverse. From La Crosse go to Madison via St. Joseph, Portland, Cashton, Kendalls, Elroy, Wonewoc, Reedsburg, Abelmans, Baraboo, Sauk City and Ashton. The distance is 150.2 miles and the roads sand and clay (Route 176 reversed). Now take route 174 to Chicago, 149.1 miles good dirt with some macadam. For maps write the American Automobile Association, 437 Fifth avenue, New York, asking for the state of Wisconsin. You can get an excellent route book for Wisconsin for $1 from the Scarborough Company, Indianapolis.

WINTER LAY-UP.

CHARLES CHAMBERLAIN.—Before putting your machine away for the winter clean it thoroughly all over. Wash out the motor with kerosene and see that everything is thoroughly dry. Deflate and remove tires and clean rims. Rub tubes with French chalk and place in a bag which you will keep in a fairly warm place, away from the light, until ready for use again. Do the same with the casings. Now go all over the machine looking for rust, which remove, if possible, then coat all metal parts with vaseline or a good gun grease. Set the machine on the stand and finally cover it up. When you next wish to use it, wipe off the grease, put on the tires and fill up.

ADDRESS WANTED.

WILL Doctor E. Dozier, who inquired about a railroad motorcycle, send in his address? We have received a letter on this subject which we will be glad to forward him.

STORAGE BATTERIES

A. H. PAULLUS.—See answer to Frederick W. Steadman, page 56, issue of December 12. We refer you to the Willard Storage Battery Company for further details.

Owing to the unusual amount of material that had to be handled incidental to our Show Forecast issue, the decisions and awards for Question No. 12 will be announced in the January 23 issue.

SUCCESSFUL HOUSEWARMING.

OVER two hundred motorcyclists of New York City and vicinity were the guests of Manager Gene Coughlin, at the Riverside Motorcycle Garage, 533 West 110th street, New York, on the evening of December 28. Nearly all the neighboring clubs were represented, and an interesting program was carried out. The visitors were greeted by Manager Coughlin and President G. E. Wood, of the Riverside company, supplied with eatables and drinkables and incidentally they were introduced to the new R-S and Eagle models for which the Riverside folks have the agencies.

LOOK FOR BIG YEAR.

BALTIMORE, MD., January 6.—The motorcycle business in this city during the past year was splendid, and the dealers express confidence that the present year will far surpass the previous one. Howard A. French & Co., agents for the Indian, sold 231 new machines in 1912 and 142 second-hand ones. During the holidays 12 new models were disposed of and there are plenty more ready to take the two-wheelers as fast as they arrive in the city.

French has an order in the Indian factory for 500 machines for delivery this year and he fully expects to not only sell them but have a demand for more. The improving of streets in this city and the roads throughout the state has made the motorcycle very popular in this section.

A STANDARD PATENT.

IT is announced by the Standard Thermometer Company that its method of driving the speedometer from the front wheel is patented, and that any infringements will not be permitted. The attorney of the Standard Thermometer Company recently served notice on a concern which had announced its intention to produce a similar front wheel drive. On January 3 we received a letter from the attorney for the other company admitting that the latter's device constituted an infringement of the Standard patent, that they had discontinued the manufacture of the same immediately upon receiving notice from the Standard Thermometer Company, and that they are using every effort to stop its sale.

CHIEF GEHLE, of the Piqua (Ohio) Police Department, has requested the city to purchase another motorcycle for use in patroling the local driveways.

A MOTORCYCLE will be purchased for the building inspector at Pueblo, Col.

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The HOME of the MESINGERS

MASSIVE against the sky line, like an ancient castle on the Rhine, stands the stronghold of the H. & F. Mesinger Mfg. Co., those past masters of the art of saddle-making. In appearance the new Mesinger factory is quite distinctive, and well deserves the appellation of the largest and most up-to-date saddle factory in America. It is five stories high and fireproof throughout. The entire building is electrically lighted, the current being supplied by a 35 h. electric dynamo. To add to the protection against fire, automatic sprinklers are fitted throughout the plant. This precaution, however, is rendered practically unnecessary by the almost total absence of wood in its construction, iron staircases, cement flooring and hollow brick walls being the general structural scheme in this model factory.

Power is supplied to every part of the works by a 100 h. steam engine. Transmission is by vertical shafting throughout, one center shaft running from the basement to the top floor. The electric dynamo and the steam engine are, of course, situated in the basement, as are also the rolling machines and oil forge for heating and tempering the springs before rolling.

On the first floor are found the commodius offices, the shipping and finishing rooms. Here the motorcycle saddles undergo a final inspection, one of the features of which is a weight and vise test of 350 pounds on each saddle. The finishing touch is here added to the saddle by riveting machines which fasten the tops to the frame. Raw material is also methodically stocked on this floor.

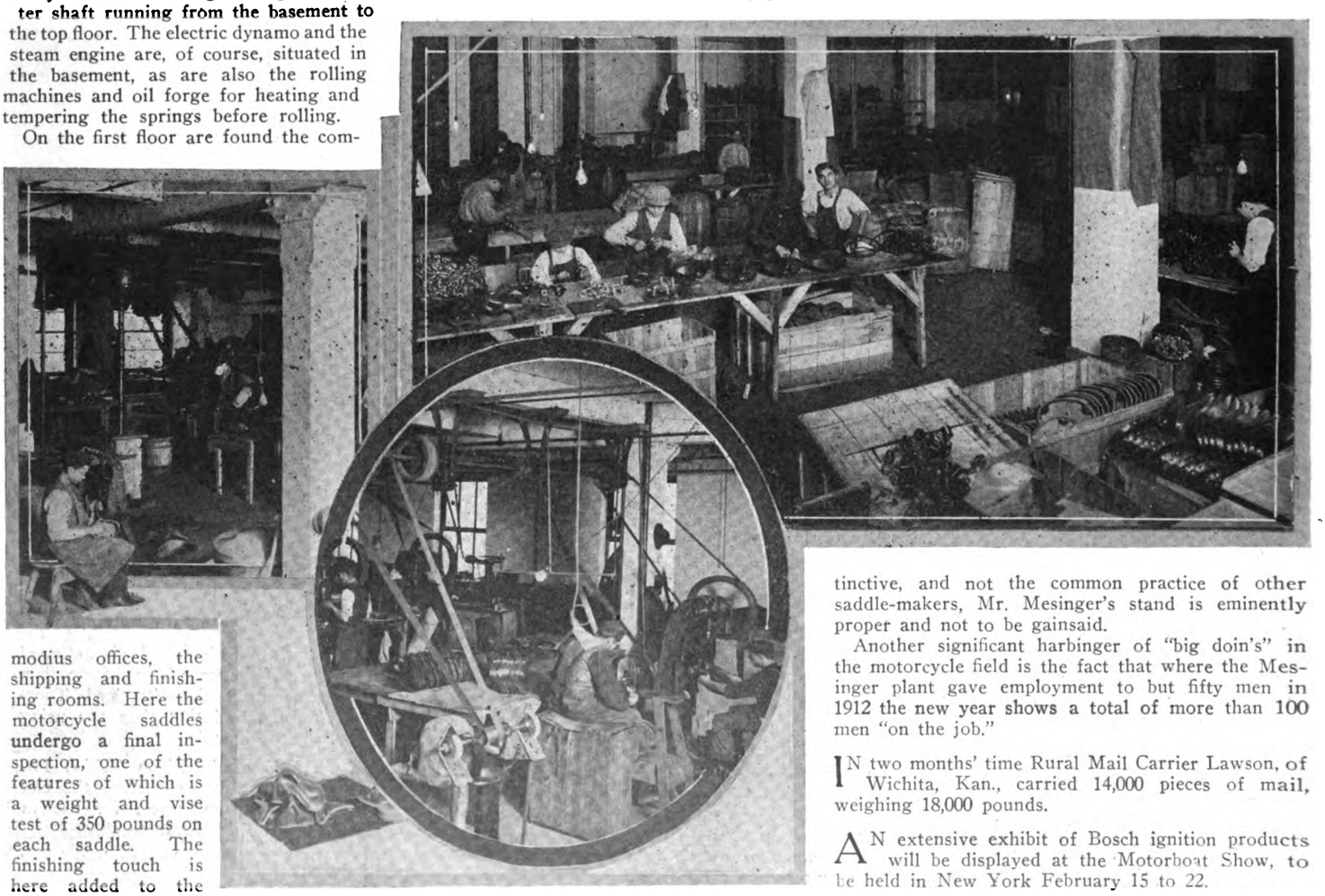
On the second floor are located the machinery and stamping departments. Here tools for the workmen's use are made by skilled and highly-paid mechanics. Here, too, the stamping machines, tremendously powerful, with which the metal parts which do not require hand work are stamped, are seen in operation. A means of rapid access to all parts of the factory is afforded by a large, electrically operated lift, which is also employed for the transportation of cases of raw and finished goods.

Of unusual interest to the visitor is the leather department, which is situated on the third floor. A battery of sewing machines, forming presses and top finishing machines are clamorously engaged in shaping, stretching and finishing Mesinger saddle tops. Not to be overlooked are the men engaged in the multitudinous operations, principal among which is the padding of Mesinger Cavalry saddles.

The fourth floor is given over to the enameling and assembling of metal parts, four coats of enamel being applied to every piece of metal entering into the construction of a Mesinger saddle.

Situated as it is on the Harlem River, Austin Place and One Hundred and Forty-fourth street, New York, the Mesinger plant's shipping facilities are excellent. Freight yards are within a stone's throw of the plant, and this feature, coupled with their good trucking service makes carload shipments a simple matter.

This description has been necessarily brief, due to the reluctance of the general manager to disclose in greater detail the various operations employed in bringing to its final state of perfection the Mesinger saddle. Inasmuch as several details of its construction are distinctive, and not the common practice of other saddle-makers, Mr. Mesinger's stand is eminently proper and not to be gainsaid.



Another significant harbinger of "big doin's" in the motorcycle field is the fact that where the Mesinger plant gave employment to but fifty men in 1912 the new year shows a total of more than 100 men "on the job."

IN two months' time Rural Mail Carrier Lawson, of Wichita, Kan., carried 14,000 pieces of mail, weighing 18,000 pounds.

AN extensive exhibit of Bosch ignition products will be displayed at the Motorboat Show, to be held in New York February 15 to 22.

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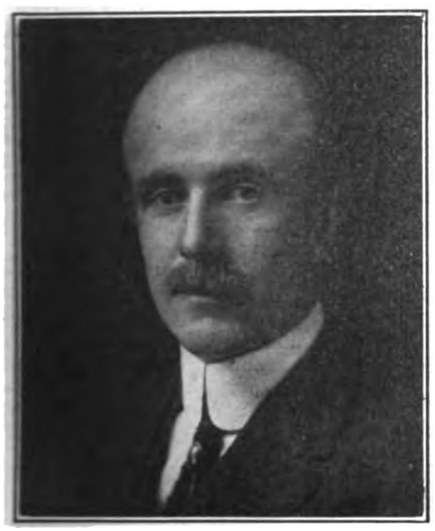
ECCLES IN NEW LINE

Salesman Who Scored Success on Persons Traveling Staff Launches His Own Company in Worcester to Manufacture Metal Accessories.

OF unusual interest to motorcycle trade circles is the announcement that W. E. Eccles, for the last three years an important factor in the sales campaign of the Persons Manufacturing Company, has severed his connection with the well-known Worcester firm to launch his own business. Mr. Eccles has formed the Universal Manufacturing Company with headquarters in Worcester, and the new company is prepared to handle metal specialties of every description as well as a standard line of wire products and sheet metal offerings.

Mr. Eccles' resignation from the staff of the Persons company took effect January 1, and he at once cleared the way for his new manufacturing enterprise. It is worthy of note that special attention will be given in his new line to motorcycle and bicycle accessories.

During his association with the Persons company Mr. Eccles traveled extensively in the firm's interest, and made three highly successful business trips to the Pacific coast. The valuable sales' experience gathered in this way, combined with Mr. Eccles' first-hand knowledge of the requirements of riders and his personal enthusiasm and popularity fit him admirably for the task he has now set himself, the production of accessories that will meet the practical needs of the trade. That Mr. Eccles is not a "prophet without honor in his own country" is evident from the fact that he is

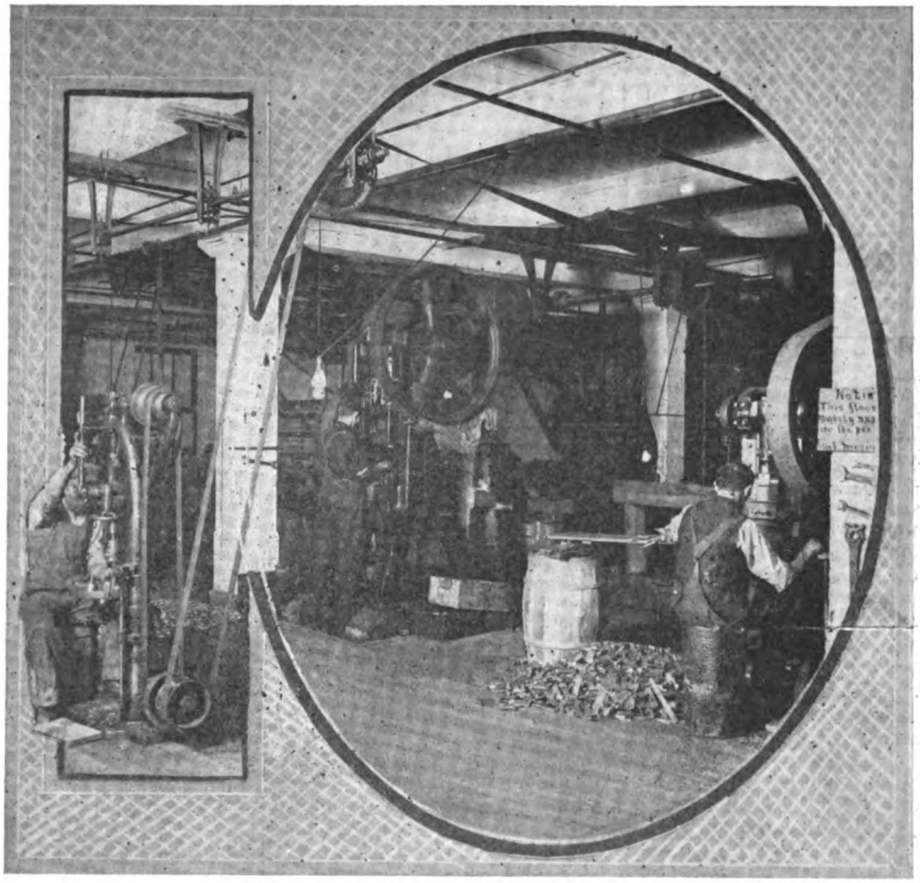


a candidate for election to the presidency of the Worcester M. C. at the next meeting, January 14.

ANNOUNCEMENT is made by the Iver Johnson Arms & Cycle Works, of Fitchburg, Mass., that they will not exhibit at the New York show but hope to have their machines displayed at the New York office, at 99 Chambers street.

IN NEW QUARTERS.

MILWAUKEE, WIS.—The Milwaukee Motorcycle Company of this city has moved to its new quarters at 834 Muskego avenue. New capital has been subscribed and the company is about to incorporate. An output of 200 machines is counted for 1913.



A Corner of the Stamping Department on the Second Floor of the Mesinger Plant, Showing the Modern Machine Equipment Which in Part Explains Mesinger Efficiency.

MAJESTIC FEATURES.

THE prominent features of the exhibition of the Majestic sidecars at the New York show will consist of three of the company's models attached to motorcycles, and ready for the road. These will be a "De Luxe" canoe-front passenger car, listing at $90, which will be shown attached to a 1913 spring-frame Indian machine. (It will be noted that the attachment is by means of a special fitting by which any Majestic sidecar can be used with the spring-frame Indian); there will also be shown one of the popular Standard canoe passenger cars, listing at $65, and attached to an Excelsior twin. A specimen of the new Majestic commercial delivery car will be shown attached to a Harley-Davidson motorcycle.

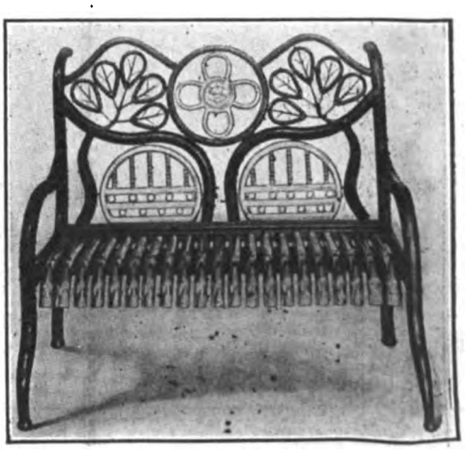
The interesting features of the delivery van are first, the box body, which is built up of five-ply veneer of maple and basewood, with the grain crossed, a construction which while unusually light is much stronger and tougher than a body made of sheet steel. This body has a water-tight cover which can be arranged to open from either side. It is mounted on a new and original system of compound springs which make the car and its load ride very easily, but prevent the swaying which is so undesirable in a vehicle intended to carry unusual weights.

Besides these three models attached to motorcycles there will also be shown bodies of the "De Luxe" curved front model, the Trinity model, with detachable child's seat, and the well-known Standard model.

A line of the Majestic specialties will also be shown, as well as several novelties which will interest motorcyclists.

A NOVEL EXHIBIT.

AN interesting feature of the Standard Welding Company's exhibits at the National shows will be a settee which is built entirely of bent steel tubular parts that the company is manufacturing for the motorcycle, bicycle and traction industries. The parts used are automobile and motorcycle exhaust tubes, manifolds, steering handles, street car strap hangers, robe rails and other parts, making a total all told of 210 pieces. To join them together it was necessary to make nearly 500 welds. Half of this number are welds made by the electric process. Most of the others were made by the autogenous method, while others were made by various processes of welding known to the mechanical world. It will suffice to say that nearly every method of welding known was used.



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5 YEARS GROWTH of H-D PLANT

FIVE years old, wonderfully big for its age and still growing, tersely describes the Harley-Davidson Motor Company, which boasts Milwaukee as its birthplace and which, in turn, is boasted of by the people of that city as its most precocious child. When Milwaukee is mentioned it always has been customary to remark something about the product "that made Milwaukee famous."

But now, well-informed people do not immediately think of lager beer when the famous product of Milwaukee is mentioned. Milwaukee produces a large amount of beer annually; its malt products are known all over the world. But beer ranks fourth in the list in the value of the city's annual products. Steel products stand first in Milwaukee, and prominent among the large factories in that class is the plant of the Harley-Davidson Motor Company.

The growth of that company in that city of diversified and large manufacturing establishments has excited the wonder and admiration of every person acquainted with the facts. During the past five years the Harley-Davidson Motor Company has had a new building under construction practically all of the time. As soon as one was finished another was started. While the contractors were finishing upper floors the lower floors were being used for manufacturing.

Five years ago when the company was incorporated by William S. Harley, Walter, Arthur and William A. Davidson, there were but eighteen employees and the floor area of the embryo factory aggregated but 2,380 square feet. That was on September 17, 1907.

"Bill" Harley, who had just graduated from the engineering school of the University of Wisconsin, where he specialized in internal combustion engines, was consulting engineer for the little factory. He was holding down creditably a responsible position with a large bridge building concern that kept him busy on week days but his evenings, Sundays and holidays were devoted to the Harley-Davidson Motor Company.

Another well-known member of the Harley-Davidson organization is S. Lacy Crolius, advertising manager. Mr. Crolius joined the Harley-Davidson forces in February, 1907. His first employment was as a drill press hand, but it was not long before he was assisting Walter and Arthur Davidson to crate machines, look after orders, write little advertisements and do other work that could not be classed as mechanical.

Of the seventeen persons who made up the staff five years ago, nine have been continuously employed since that time. The first Harley-Davidson motorcycle was constructed by Walter Davidson with his own hands, after patterns made by Arthur Davidson and drawings made by Will Harley. Notwithstanding the great growth of the Harley-Davidson Motor Company there is not a detail of the business—either production or distribution—with which he is not thoroughly familiar.

William Davidson, general superintendent of the Harley-Davidson Motor Company, came to the little corporation from the West Milwaukee shops of the Chicago, Milwaukee & St. Paul Railway Co., where he had charge of the tool room. His technical and mechanical knowledge proved of great value and gave a decided impetus to the manufacturing end of the then miniature factory.

Ollerman was one of the mechanics who grew up with the business. Five years ago he did whatever there was to be done. When the output increased he was assigned to the testing department. Now Ollerman is foreman of the twin-cylinder engine assembling department. He has held that important position for about a year, and that he has made good in every respect can be attested to by any rider of a twin Harley Davidson.

William H. Fisher is foreman of the frame department. When Mr. Fisher entered the employ of the Harley-Davidson Motor Company in 1907 the output was 154 motorcycles. This year he is confronted with the task of manufacturing 17,000 perfect frames.

Henry Melk, another of the veterans, is one of Mr. Harley's assistants in the experimental department—probably the most important department in the Harley-Davidson factory. Mr. Harley's fertile brain, technical knowledge and practical training have resulted in the perfection of the Ful-Floteing seat, the Free-Wheel control and several other inventions that have contributed to the success of the Silent Gray Fellow. But Mr. Harley generously shares the credit with his able assistant.

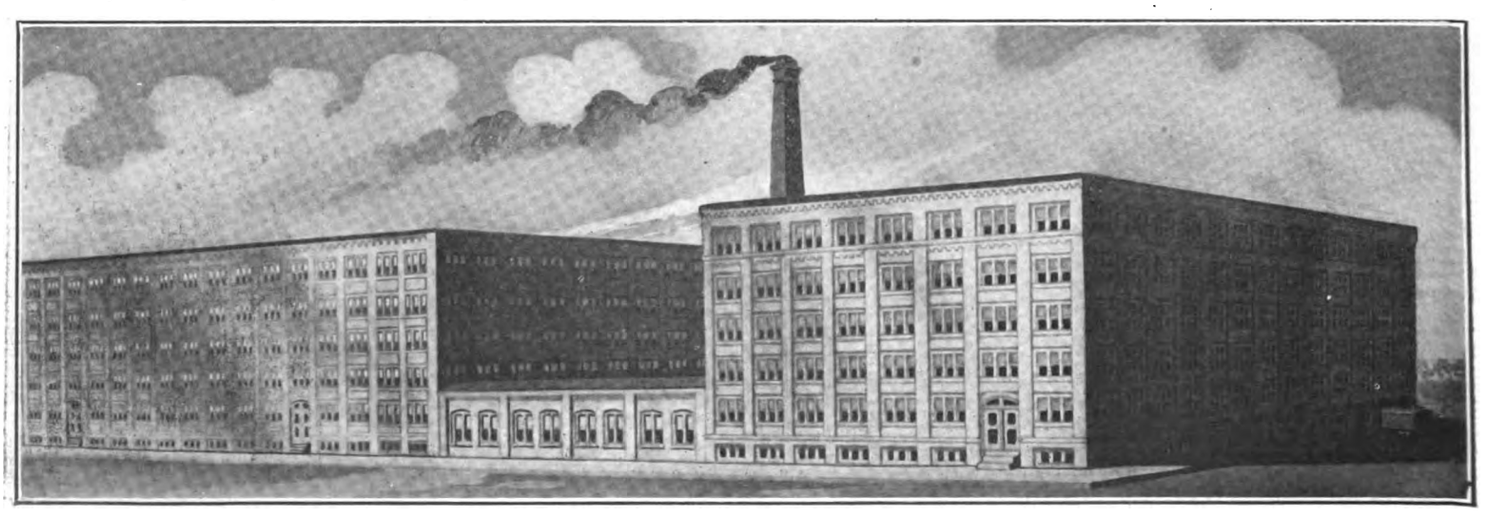
When the company was incorporated five years ago Arthur Davidson was general office man; he is now sales manager and vice-president of the company. Few men in motorcycle trade circles, if any, are more widely known than Arthur Davidson. Five years ago he had one assistant; now the office force numbers 101—exactly 100 in addition to Sales Manager Davidson.

How the Harley-Davidson Motor Company has grown in size from year to year seems startling when the figures now are compared with those of 1907. Then there were sixteen persons in the factory and but two in the office. Now there are 975 in the factory and 101 in the office. An increase of forty-six times the number of employees in five years is the record revealed by the books.

That the growth has been steady and healthy is shown by the following:

	Area Sq. Ft.	Employees (Dec. 15)
Season 1907-8.....	2,380	23
Season 1908-9.....	4,760	35
Season 1909-10.....	9,520	149
Season 1910-11.....	22,000	350
Season 1911-12.....	80,550	481
Season 1912-13.....	187,750	1,076

During the season of 1907-8 the output was 410. During the preceding season 154 machines had been built and sold. For the season of 1909 the Harley-Davidson Motor Company made 1,100 machines. The completion of its first big reinforced concrete building in 1910 made possible the construction of 3,300 motorcycles. During the season of 1911 the output was 5,600. Last season 9,600 were produced. For 1913 the output will be 17,000 machines.



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PLANS FOR BIG INTERNATIONAL RACE

At Meeting in Paris Newly Formed Federation Decides Upon Four-Days Motorcycle Contest to Be Held in England TO COVER 250 MILES A DAY

WHEN delegates representing the governing bodies that compose the Federation Internationale des Clubs Motocyclistes met in Paris on December 14 to adopt rules and consider any other timely business, interest centered in plans for the first international racing program. It had been previously decided that the Federation should conduct such a program each year, and on motion of E. M. P. Boileau, offered in behalf of the English Auto-Cycle Union, a decision was arrived at to have the first contest staged in England about September 22. The international trial will extend over four days and the distance will be 1,000 kilos., or 250 miles a day. The regulations are to be drawn up by the Auto-Cycle Union.

It was at first suggested that the international trial be conducted in connection with the first section of the A. C. U. trials in the North of England, but it was pointed out that other motor racing programs would clash with the international event if it were held in July, and the delegates finally agreed that September 22 would give entire satisfaction. The governing body of each country represented in the Federation will be invited to send three riders to participate in the big event, and each team will have a distinctive racing color. The colors were decided upon as follows: England, green; France, blue; Germany, white; America, white and blue; Belgium, yellow; Spain, yellow and red; Austria, red and green; Italy, red; Switzerland, red and white, and Denmark, green and white.

At this meeting it was also decided that the international program in 1914 shall be staged in France.

The draft rules, as considered at the previous meeting, were adopted in Paris, the only alteration being the reduction of the annual subscription to 150 francs.

W. H. Wells, of London, who represented the F. A. M. and the Canadian Motorcyclists' Association when the Federation was formally organized, again acted for these bodies at the Paris conference. The other governing bodies were represented as follows:

Austria, Carl Fasbender; Belgium, Messrs. Beukelaer, Michant, Guillot and Fagard; Denmark, R. R. toe Laer; France, the Chevalier Rene de Knyff, the Comte de la Valette, Messrs. Hugo Storr, Greame Fenton, F. G. Fenton, Longuemare, Debouilly; Germany, M. D. Hein; Great Britain, E. M. Boileau, W. Pratt and T. H. Tessier; Holland, R. R. toe Laer; Italy, the Marquis Ferrero di Ventimiglia; Switzerland, M. Negevet.

A special committee was named to consider rules for governing competitions and the delegates of the Automobile Club de France submitted *les Reglements Genereaux des Courses sur route pour motocyclettes et motocycles* of the Commission Sportive of the A. C. de F., as a basis on which to establish regulations for motorcycle competitions in general. The suggested rules were carefully considered and were finally adopted with a few amendments.

Mr. Wells in submitting his official report to the F. A. M. suggests that as many American motorcyclists are touring in England and Continental countries during the late summer of each year, it should be a comparatively easy matter to make up a representative team to take part in the international race. This idea is subject to qualification, however, for the American tourists referred to are usually sightseers, pure and simple, while the other teams would comprise racing talent.

"THE SUNSET RAMBLE."

INSTEAD of holding its usual annual endurance run, the Los Angeles M. C. will this year take what is known as the "Sunset Ramble." This is a ten-day trip, the route and plans of which were mapped out by Paul J. Derkum and submitted to the Los Angeles M. C. The turning point will be San Jose. Banquets and theatre parties will be enjoyed all along the route, and everything possible will be done to add to the comfort of the rider. A relief corps will make the trip and remain behind the riders during the entire run. A repair man from each of the agencies will also accompany the riders, so that no rider need be without assistance in repair work. Seven tire companies, the names of which have not been given, have volunteered automobiles to go along as service cars.

RAPID PROGRESS.

ALTHOUGH the Wilmington Motorcycle Club, of Wilmington, Del., has not yet seen its first birthday, it boasts of more than fifty members. It has made splendid progress under its present staff of officers, which is given as follows: E. F. Burkins, president; A. E. McDaniels, treasurer; C. Jacobs, secretary, and R. Evans, road captain. Runs throughout Delaware, Pennsylvania, New Jersey and the District of Columbia are held every week. A number of the members intend riding their machines to the New York Show, provided the weather is favorable.

A SUCCESSFUL dance was recently held by the Flower City M. C., of Rochester, N. Y. It was an annual affair and 85 couples were present.

MEMBERS of the Pittsburgh (Pa.) M. C. are working for a membership of 100 to open the 1913 riding season. It now has fourscore members.

SPECIAL MEETING

President Patterson Issues Call for Session of F. A. M. Directors in New York, January 15

PRESIDENT PATTERSON has issued a call for a meeting of the F. A. M. directors, to be held Wednesday, January 15, in the office of the Chairman of the National Committee on Legal Action, 51 Chambers street, New York City. The principal object of this meeting is to give the members of the board an opportunity to thresh out the California situation and to agree upon the course of action, with a view to bringing about a better understanding between the Federation's officials and the boys on the Pacific Coast.

The correspondence which has recently passed between the directors indicates their inclination to meet Pacific Coast objections more than half way. The directors know that they cannot please everybody, particularly when, as in this case, there are such radical differences of opinion. Several of the directors have advised both President Patterson and Chairman Thornley to withhold further action until the entire board has had an opportunity to pass judgment and to express its wishes, as a body, in connection with the Pacific Coast situation. It is confidentially believed that as a result of the coming meeting of the directors, Pacific Coast members of the F. A. M. will be convinced that the organization is national in its scope, and that it would be a serious mistake on the part of the Far-westerners to attempt to break away.

LATE club affiliations are reported by Secretary Gibson as follows: The West Side M. C., of Chicago, Ill., and the Wilmington M. C., of Wilmington, Del.

OUSTED THE REINDEER.

SALT LAKE CITY.—Having thrown the horse into the shade, the motorcycle went on the trail of Santa Claus' traditional reindeer in Salt Lake City, Utah, during the Christmas season. Members of the Salt Lake M. C. offered to deliver Christmas packages for the society of Big Brothers and Big Sisters, and in this way hundreds of parcels were distributed without cost and with the utmost expediency. A local newspaper organized a society of Big Brothers and Big Sisters to look out for the poor of the city; citizens flooded the newspaper office with donations, and then the motorcyclists solved the distribution problem by whirling about the city on their machines until the last package had been disposed of. President Classpool, of the Salt Lake M. C., has been liberally commended, and the action of the riders has created an excellent impression in this city and vicinity.

FRISCO M. C. LEADERS.

OFFICERS and directors of the San Francisco M. C. are as follows for 1913: President, H. G. Hodges; vice-president, William P. Streiff; recording secretary, A. W. Green; secretary-treasurer, Volney E. Davis; and Mrs. I. W. Fletcher, G. W. Payton, G. P. Gouglass, William P. Streiff, Volney E. Davis, H. G. Hodges and A. W. Green are the directors.

THE REGISTERED LIST.

THE Bicycle Supply Company (C. W. Brewer), 64 West Broadway, Salt Lake City, Utah; the Vermont Repair Works, (A. L. and H. P. Waters), 3570 South Vermont avenue, Los Angeles, Cal.; Shelton Sturges, 108 Court street, New Haven, Conn.; Albert E. McDaniel, Wilmington, Del., and Glenn A. Scott, 307 Branson street, Marion, Ind., have been added to the list of registered repair shops.

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SPEED KINGS of 1912

OFFICIAL records show that the year just closed was one of the most irritating Old Dad Time has ever had to contend with; on more than one eventful occasion motorcycle speedsters came within an ace of making good their threat to reel off 100 miles an hour, and there was never a day when the old chap could settle down without a lurking fear that some of the boys would cut loose and leave him in the rear. On February 11 last Eddie Hasha started the campaign of record-clipping at the new Los Angeles Stadium by wiping out the high marks from one to four miles. He trimmed the mile record down 1⅗ seconds, and set the new mark at 39⅗. The former record mark had been established by Jake DeRosier.

Hasha's stunt was the signal for a general outbreak, and a week later, at the same track, the diminutive Texan erased the old five-mile tabulation. Al Ward also came into the limelight on this day by putting a new 10-mile record on the books. Ward broke loose again on March 17, and a new six-mile record was born. For two weeks all was quiet along the Pacific, and then Hasha on the thirty-first equaled his mile time of February. The boys were revising the table almost over night now. On April 7, Hasha blotted out all previous marks from one to ten miles, incidentally hanging up a 37⅘-second mile.

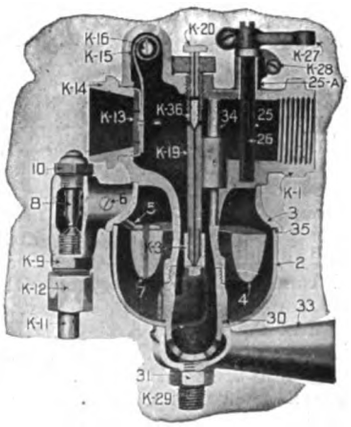
Then came the all-star speed show of the year, at Los Angeles, May 17, when Ray Seymour, a local boy with a national reputation, opened his gasoline artillery, and for 21 miles kept the scorers busy writing new records. This was the birthday of the present mile record, 36⅘ seconds, a 97.82 mile an hour gait and the fastest official time ever made by motorcycle. Before Seymour's engine had cooled, Lon Claflin, of Salt Lake City, secured permission to go against the amateur records with it and established new times from 1 to 17 miles. A week later, on the twenty-fourth, Seymour went out and made a few more changes in the speed table, the distances from 22 to 30 miles being revised downward.

Hasha capped his most successful year in speedland by winning the American professional championship at the national F. A. M. tournament at Columbus, O., in July. John U. Constant, of Brooklyn, captured the national amateur championship in unprecedented fashion, scoring 29 points in a possible 37. No records were broken at this meeting, however. While the championship holders and record breakers hail from all sections of the country, it is worthy of note that the machine used in all the spectacular performances recorded above was the Indian. Naturally the 1912 speed records have brought joy to the Hendee wigwam in Springfield, Mass. Wigwam racing plans for 1913 are at present uncertain.

"The Speed Kings of 1912"—Top, Constant; Center, Hasha; Bottom, Seymour.

DEADWOOD MEETING.

ONE of the best attended meetings of the Deadwood (S. D.) M. C. of 1912, was held December 31. An interesting program of events was laid out for the ensuing season. This was also the occasion of their annual election and the new leaders are as follows: A. J. Walley, president; George F. Edgerton, vice-president; Philip Shoenberger, secretary, and K. F. Henderson, treasurer. Various racing events figure prominently in the 1913 program. The club's membership is booming.



MODEL K HEITGER

THOSE familiar with the Heitger carbureter will welcome the maker's latest model, known as Model K, an illustration of which is shown herewith. The new features of this model are the air-admission valve and its spring, and the two feed gasoline adjusting stem, the latter being marked K-32, K-36 and K-19 in the cut. K-32 is a nozzle from which gasoline is drawn for low speed running, there being four narrow slots in the lower end of the stem K-19. The adjustment for this is by means of the milled head nut at the top of the carbureter. In the upper end of stem K-19 are four other holes, which are controlled by the knurled head K-20. Air is admitted by a slot in this latter part, and its action is to break up the gasoline emerging from the upper holes and form a "mist."

The air valve, K-13, is a pressed steel disc which has a flap action, giving free opening for the auxiliary air through the smooth cage K-14, at highest speeds, but remains seated at low speeds. The spring K-15 is flat with upper spiral around the axis K-16, the latter having at its outer end a lever which works over a toothed quadrant on the side of the instrument. A rearward movement of this lever increases the tension of the spring, and when clear back the air inlet is practically closed, making starting easy even in cold weather. With the lever moved forward the tension on the spring K-15 is reduced according to the amount desirable for low speed work. The lever can be shifted on its stem to adjust spring K-15 where extreme weather conditions warrant it, and any adjustment of the spring tension can be made while riding. The primary air is taken as usual through the horn at the base of the instrument. Either interchangeable glass or metal float bowls can be had as desired.

MOTORCYCLE INSURANCE.

BECAUSE of the receipt of many inquiries regarding motorcycle insurance, this publication has made inquiries to learn that policies are to be had as follows:

Covering loss by fire, premium two per cent. of the principal amount; loss by theft also two per cent.; covering damage to other property, $7.50 for $1,000 insurance. Policies covering personal liability and damage to one's own machine are also to be had. More detailed information in reference to the above may be obtained from A. B. Maillefert, care Weaver-Ebling Co., 2230 Broadway, corner Seventy-ninth street, New York; telephone, 9641 Schuyler.

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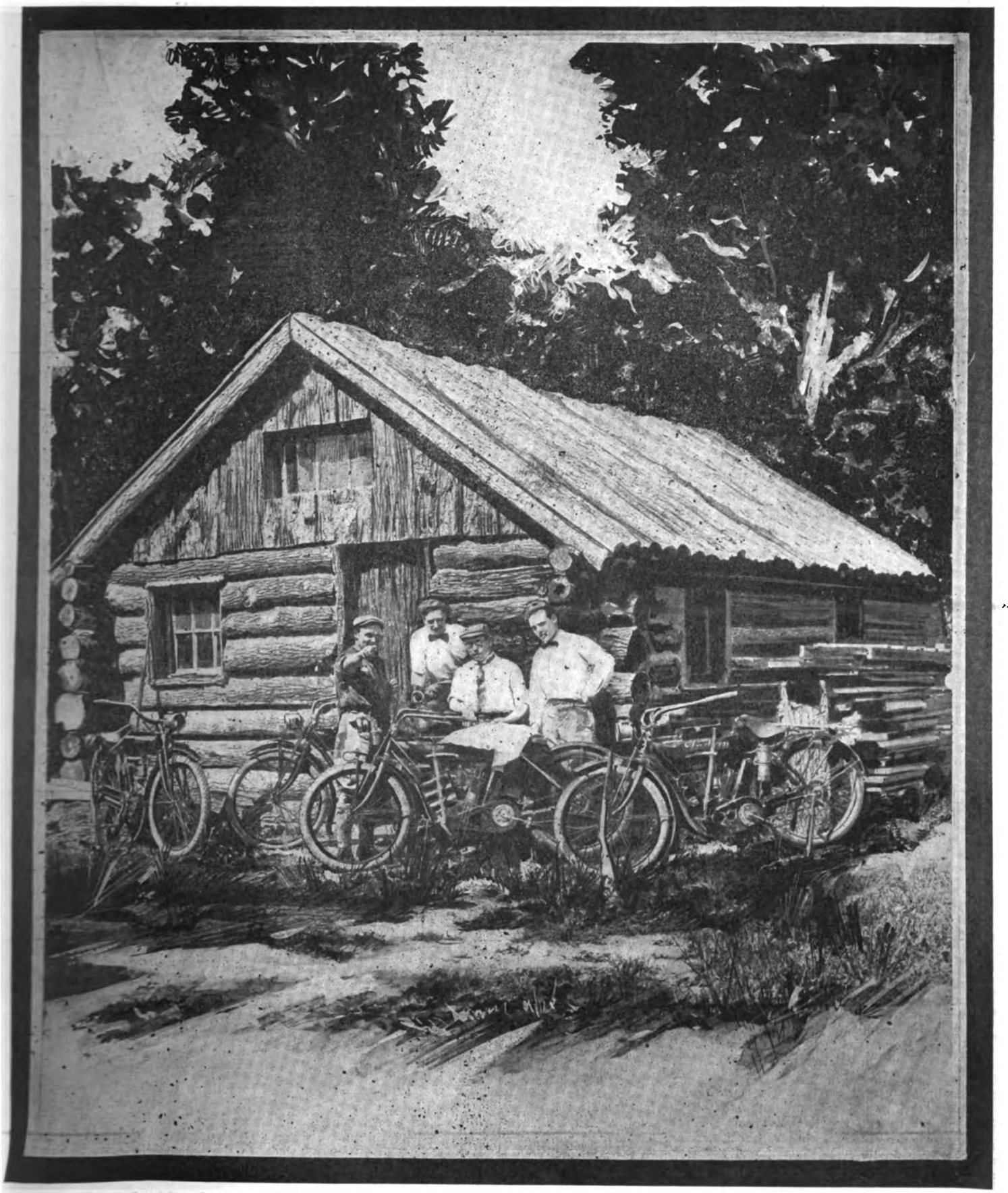

Roughing It In the Adirondack Country, with the Trusty Steel Mounts Usurping the Place of the More Picturesque but Less Versatile Horse of Other Days.

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MY TRIP TO NIAGARA

by J. G. PRATT

MY last year's motorcycle trip to Boston proved so successful that then and there I decided to try Niagara the following year. A pal and I had the trip in view all summer, but at the last moment business interfered and he couldn't go, so I started out alone. I have found on two previous trips that there is a pleasant excitement in being entirely dependent upon oneself. You can take your time and enjoy the scenery because you don't have to keep up with a bunch. And then, it has been my experience that you actually make better time, as there are only your own troubles to hold you back, which in my four tours have been practically nil. Of course you miss the companionship in the evenings, but considering everything, I had no misgivings but that I would have a pleasant trip.

I rode a 1911 6 h. p. twin Merkel, recently equipped with an Eclipse clutch, the same machine which carried me to Boston, and aside from appearances it is as good now as the first month I rode it, although it has now covered about 7,000 miles.

The morning of October 18, 1912, was bright and crisp, and the woolen sweater under my khaki felt mighty comfortable. The first stop was about ten miles out, where a new bridge was being built across a stream at Berwyn, Md. An eight-inch plank leads up to the bridge and a single board lay across the iron girders. As a motorcycle with a fifty-pound suitcase strapped across the back is an unwieldy thing to handle, I tipped a colored boy to help me wheel the machine across. I was soon speeding along the fine macadam road to Baltimore, which is only marred by three miles of what is called the Beltsville sandpatch. By taking the paths and doing a little foot work when the machine skidded I managed to get through without dismounting.

Reviewing Old Experiences

Baltimore is a difficult city to pass through, owing to its ancient cobblestones, but by following Wilkens avenue to Fulton and down Broad to Baltimore street, most of the cobbles can be avoided. It was 11 a. m. when I reached the outskirts of Baltimore, but 12 o'clock before I finally hit the pike on the other side of the city. The dirt road is fair and traverses a rolling country, with hills continually getting longer and higher. Occasionally you cross a stream by means of a covered bridge. Short sandy stretches begin to appear as you approach Havre de Grace, seemingly a prelude to what is in store later on. When you finally cross the toll bridge over the Susquehanna to Perryville, your troubles begin in earnest.

On a previous occasion I had been through the all but impassable twelve miles of sand to Elkton, and well remembered what happened on my tenth spill. I had asked a passing countryman if the road to Elkton was all like that, and he replied: "No, some of it is wusser." So on the recommendation of a teamster at Perryville I took the pike, which turns sharply to the left. This he informed me was a fine road and would carry me completely around the sandpatch to Newark. For about ten miles the road is fairly good, then Cecil County begins to assert her claim of having the poorest roads in the state. To make things worse the country is hilly. The constant pulling through deep sand began to tell on my motor, and when within three miles of Newark a bad hill was encountered which the machine in its heated condition couldn't climb. It was now dark, but with the aid of my searchlight I managed, more by walking beside the machine with the free engine pulling than by riding, to finally reach the top. Then my troubles were over.

An Impromptu Race.

I secured excellent accommodations at the Deer Park Hotel, and made an early start the next morning. There is a fine state pike from Newark to Wilmington, and from there to Philadelphia, at which place I arrived by noon. In spite of threatening clouds and a rainy forecast, I crossed the ferry to Camden and started down the famous White Horse Pike. This is a 60-mile stretch of perfect macadam. While purring along at a 30-mile clip, suddenly there came the bang-bang of a one-lunger at full speed and a man and woman sped by riding tandem on a single Harley-Davidson. I accepted the challenge and was soon alongside. The fellow kept letting her out until my speedometer registered 42 miles, which proved to be the best he could do. I then gave the throttle another notch and showed him my dust.

Atlantic City hove in sight at 3 p. m. I had covered the sixty miles in just two hours, which shows the quality of this speedway, as I care more about comfortable and careful riding than speed. I put up at the Elwood on St. James street. The proprietor allowed me to put the machine in the basement of the hotel. I washed and dressed and then "did the boardwalk," which was well crowded for so late in the season.

Mapp to the Rescue.

I took to the road early the next morning and retraced about ten miles over the boulevard to Absecon. From there to New York the road is a hard white macadam, which permits the motorist to go as fast as he likes. The scenery is mostly a monotonous panorama of cedar trees and marshes. Further on, however, the scenery changes to low spreading farms and meadows, and is pleasing to the eye if not picturesque. At Toms River I made a short stop to view the fleet of fine motor boats and incidentally put another wire to my clutch, as the old one had snapped off and become too short. I reached Perth Amboy at 2:30 p. m. and then ferried to Tottenville. From there I hit a lively pace to St. George, Staten Island, and thence took the ferry across New York Bay to the Battery. I went up Broadway, which is paved with asphalt, to the automobile row, which begins at 155th street. I left the machine at a garage and stopped for the night at the St. Paul Hotel. It was Sunday night, but New York offers many diversions even on the Sabbath, and I spent a pleasant evening at the Lyric Theatre.

I got under way about 9 a. m. Monday, but

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as my carbureter had not been doing its full duty on the hills, I stopped in at the Merkel agency on Broadway and 183rd street. Right here I would like to commend Harry Mapp as the friend of the touring motorcyclist. He replaced a broken wire to my exhaust lift and spent an hour going over my machine and adjusting the carbureter. He discovered that my trouble was due to a dead spot in the carbureter and that by turning the throttle a little further over it would take the gas in great style. After this my machine gave not the slightest trouble; in fact I climbed the hills a bit faster than I like to travel. Naturally I wanted to pay him for his trouble, but Mr. Mapp would not hear of it, stating that he was always glad to be of assistance to tourists.

On the Albany Post Road.

It was noon before I left the city and struck the Albany Post Road through Yonkers, Dobb's Ferry and Tarrytown, where now and then the road runs close to the river and the rider gets a fine view of the Palisades. October is the month for tourists, especially along the Hudson, where the scenery defies the pen of the writer or the brush of the artist. There is mile after mile of perfect macadam, sprinkled with multi-hued leaves which every gust of wind sends whirling to the ground. Overhead the autumnal foliage forms an arch under which the motorist instinctively slackens his pace in order to feast his eyes on the wonders around him.

I took a snapshot of the river at Peekskill. At Cold Spring I left the state road and followed the river road, which was in excellent condition and for about twenty miles follows along the very shore of the Hudson. I reached Poughkeepsie early in the afternoon and intended going on to Albany, but as I met some of the boys of the motorcycle club, who had entertained me so royally last year, I couldn't resist the temptation to stay over. The morning broke with a fine drizzle, and as it had been raining nearly all night the road was wet and slippery. On inquiry I found that there were no bad stretches between there and Albany, and so decided to risk it. As I was nearing Hudson the weather cleared and by the time the State Capitol was in sight the sun was shining.

On a Scenic Route.

The road follows the trolley on the left side of the Capitol and is in excellent condition except for the first two or three miles, which is bumpy. I found much diversity of opinion at Schenectady as to the best road to take. On the advice of an autoist who had just come from Buffalo, I crossed the bridge and took the road on the north side of the Mohawk. I have since learned that this route is by far the best, as it is one unbroken stretch of macadam and follows close to the river. The river, though not much more than a canal, offers picturesque views of bridges and waterfalls. At Amsterdam I was told to stick close to the railroad track. This I did for about a mile and then began to get suspicious, as the road was nothing but deep ruts and mud, and after a little scouting the pike was found only a hundred yards up the hill.

Some five miles further on the road goes over what is known as Tribes Hill, which for length and steepness would be a good site for hill climbing events. The road is as smooth as asphalt, however, and by turning on a little more gas I managed to get up without pedal assistance. It was now nearly dark, so on reaching Fonda I put up for the night at the Brunswick Hotel. Once more the morning broke cold and rainy, so I decided to stay over a day and await better weather. There were many things of interest in the little village. A dozen Italian laborers had been held up and robbed of their wages, and the trial of the culprits at the county courthouse was well worth seeing. Later on in the afternoon, in company with a party of autoists who were also held up on account of the rain, I walked a couple of miles into the country and visited the old homestead of Walter Butler, built in 1743.

Bad Weather Encountered.

The next day did not bring any encouragement, but as the rain had practically ceased I set out. Some five miles out of Fonda the surface of the road had been removed in the process of rebuilding, and I made the next four miles by wading ankle deep in mud and guiding the machine. The remainder of the way to Utica is state road and the ride was uneventful except that when I had covered about half the distance it rained again and in torrents I left the machine with the Merkel agent at the Utica Cycle Company and made the most of the afternoon by visiting picture shows.

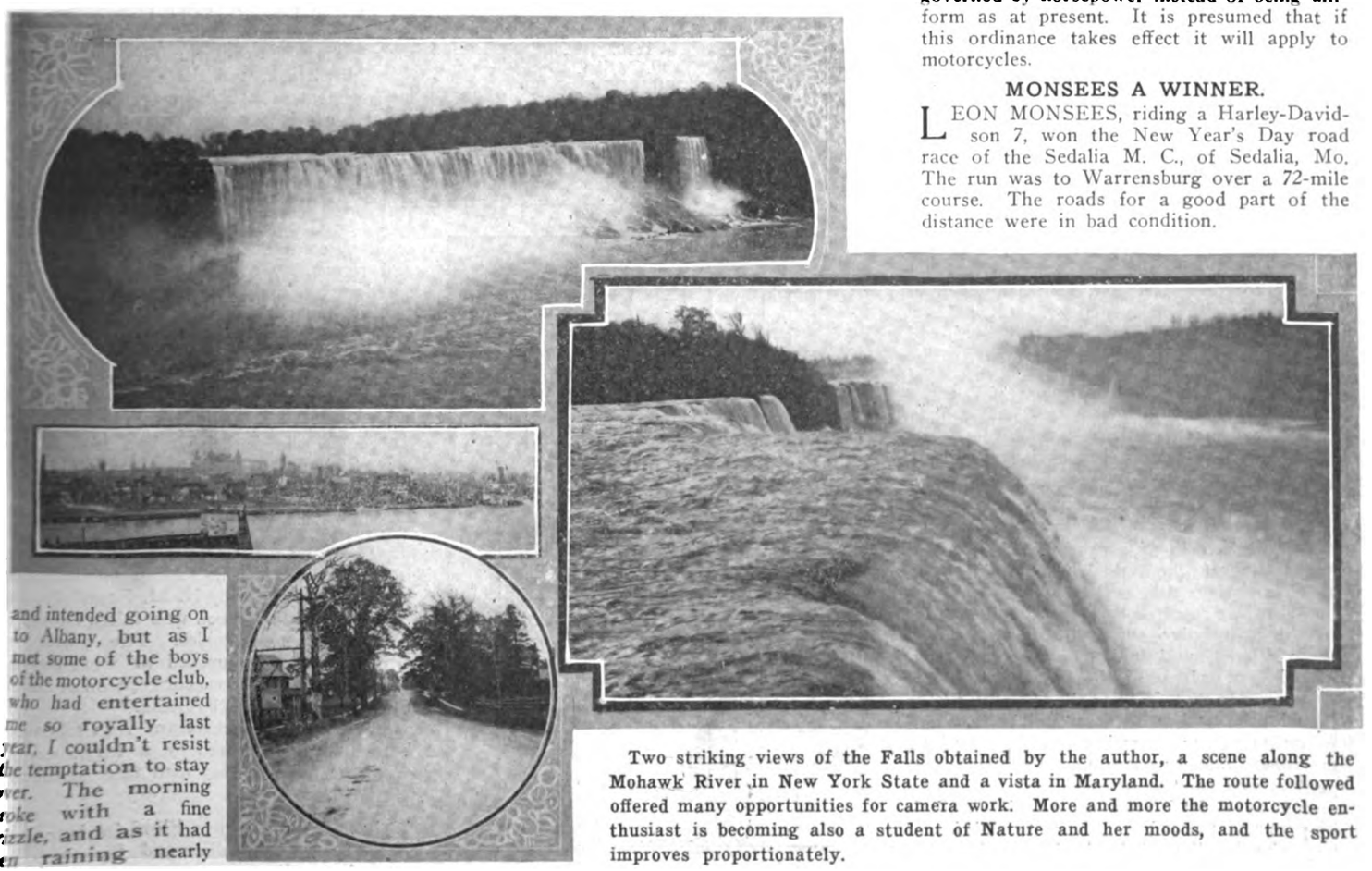
It was now evident that a rainy spell was on in earnest, and as there was no letup on the following day I had the machine crated and shipped to Washington. I then took the train for the remaining 180 miles to Buffalo and Niagara. In the 600 miles I covered on my machine, I used exactly 7 gallons of gasoline and 3 quarts of oil, at a total cost of $1.75, or about one-third of a cent per mile. I had no puncture during the trip and no repair expenses.

TO BASE TAX ON H. P.

A BILL has been proposed in California to change the system of taxing motor vehicles. It is the desire to have the licenses governed by horsepower instead of being uniform as at present. It is presumed that if this ordinance takes effect it will apply to motorcycles.

MONSEES A WINNER.

LEON MONSEES, riding a Harley-Davidson 7, won the New Year's Day road race of the Sedalia M. C., of Sedalia, Mo. The run was to Warrensburg over a 72-mile course. The roads for a good part of the distance were in bad condition.



Two striking views of the Falls obtained by the author, a scene along the Mohawk River in New York State and a vista in Maryland. The route followed offered many opportunities for camera work. More and more the motorcycle enthusiast is becoming also a student of Nature and her moods, and the sport improves proportionately.

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NEED PROOF? HERE ARE SOME FIGURES

IT requires no great stretch of the imagination to see in use in the United States, in the near future, 1,000,000 motorcycles. At the present rate of increase, the end of the year 1915 will witness that engaging spectacle—1,000,000 motor-driven two-wheelers, worth about $200,000,000. The figures at the close of 1913 promise to be 300,000 and $60,000,000 respectively, as against 175,000 and about $35,000,000 at the end of last year.

An Interesting Analysis.

A comparative analysis of the output of the Bosch Magneto Co., given herewith, indicates an increased production for 1913 of more than 200 per cent over the 1912 output. This company has already delivered for 1913 use 10,000 more magnetos than the total with which it equipped 1912 models. Last year, by the first of January, it had delivered less than 10,000 magnetos, and in 1911 less than 5,000. For 1913 the same company's deliveries total approximately 50,000, an increase of 400 per cent. Although this rate of increase will, of course, not be maintained for the entire season, the company estimates that its 1913 output of motorcycle magnetos will exceed its 1913 production by more than 215 per cent.; that is, that this company alone will produce not less than 120,000 motorcycle magnetos to be fitted to 1913 machines.

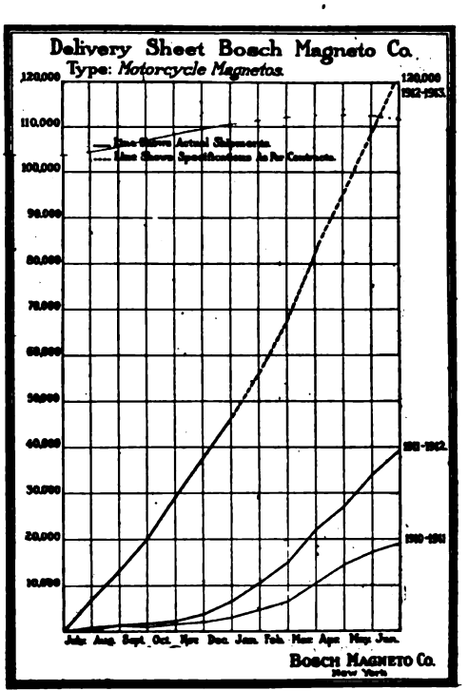
While the figures which measure the size and extent of the automobile industry are vastly greater, the rate of increase in the number and value of 1913 automobiles over those of last year will not be nearly as great as in the production of motorcycles.

The outlook presages wonderful growth and development during the next few years. The industry is now solidly established on a sound foundation of capital, ability and experience, and the uprearing of a magnificent monument as evidence of the substantiality and permanence of this remarkable business is now simply a matter of time.

Expansion Is the By-Word

Advance orders of general accessories also help to indicate the outlook for machine sales, as it is obvious that dealers strive to accommodate their stock of supplies and accessories to the prospective output of motorcycles in their district, and it is conservatively estimated that orders for the latter are already 50 to 75 per cent. heavier than for 1912. On all sides the catchwords are: "Build! Expand!" Some accessory manufacturers are rushing machinery into a new ground floor while carpenters and painters are still busy in the second story, and wherever construction work is in progress the policy appears to call for at least the doubling of the firm's manufacturing capacity. In more than one instance, aside from the remarkable showing of the Bosch Magneto Company noted above, accessory and supply manufacturers find that their orders for 1913 already equal or exceed the total output for 1912, large as that was.

These are days of unprecedented optimism in the motorcycle field and allied circles, but there is nothing that savors of sensationalism in the claims of trade workers. They merely state conditions, and where proof is needed it is at once forthcoming in new factories, larger staffs, doubled and tripled outputs and advance orders that already have some of the biggest plants preparing for night and day schedules. Figures tell their own story, in this instance proving once more that the plain truth can be as startling as fiction.



The Story at a Glance.

SAN JOSE WINNERS.

RAY WATKINS and Ben Torres, mounting a Harley-Davidson twin 8, won the seven-hour race for the $100 Lamolle trophy at San Jose, Cal., on December 8. They covered 346 miles and finished 17 miles ahead of their nearest competitors. The race was held on a dirt track, and the showing made—an improvement of 12 miles upon the best previous record—is for that reason all the more worthy of note.

NEW YEAR'S DAY RUN.

MEMBERS of the Atlantic City (N. J.) M. C. participated in a New Year's Day economy contest. A run was to Somers Point and return, over a 24¾-mile course. Two speedometers and an inner tube were awarded to the winners in the single class, and Presto tank and a Solar lamp were given the winner in the twin class. Second and third prize winners in this class each received cyclometers.

INDIANS AT THE WIGWAM.

WHEN the Carlisle Indian football team, from the government school at Carlisle, Pa., was at Springfield, Mass., to play a local team some time ago, the redskins were the special guests of the Hendee Manufacturing Company. They made a visit to the home of their namesake, the Indian motorcycle, and a party chaperoned by H. M. Stauffer, musical instructor of the school, was taken through the plant by factory guides. The sons of the Great Spirit were amazed at what they saw, having had no previous conception of the magnitude of the Indian business.

In the afternoon the team was taken to the battlefield, and cheered by a large delegation from the factory; they won the game, as was expected.

PLANS for a trip to Florida late in January are being discussed by motorcyclists of Indianapolis.

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NEW building construction by the acre, the employment of help by the thousand and the utilization of capital running far into the millions—these three factors, among others of almost equal importance, help to explain the tremendously large and valuable output of the Goodyear and Diamond-Goodrich plants in Akron, the world-famous city of tires. A trip to these two huge manufacturing establishments is nothing less than a stupendous revelation of the record-breaking growth of the motor industry and allied trades.

At least it was so to the publisher of MOTORCYCLE ILLUSTRATED. Consider these figures for a moment:

Goodrich Company—Capital, $90,000,000; ground area, 75 acres; distance around the double plant, over two miles; average 1912 output, 4,000 tires a day.

Goodyear Company—Seventeen enormous buildings having 2,000,000 square feet of floor space; nearly 8,000 men and women on the payroll; $15,000,000 worth of $100 shares now quoted at $450, and a production which exceeds 5,000 tires daily.

The writer was escorted around the Goodyear plant by C. E. Falor, who is in charge of the Motorcycle Tire Department. My attention was first called to the four wonderful tire-making machines, easily the most striking feature of this portion of the plant, and of which there are several score in the automobile tire department. Each machine not only does the work of twenty men, but also turns out a product having a uniformity quite unobtainable through human skill and energy. The machines, for example, effect the same amount of stretch on every part at all times, whereas a man, no matter how muscular, is bound to experience a relaxation of his efforts toward the end of a hard-working day. Then, too, dependent upon his physical condition, the amount of energy applied to his tasks varies from day to day. But the machines, ever insatiable for work, perform their duties with unfailing accuracy at all times.

The Goodyear Company is, in a sense, a co-operative concern. Its officials believe in and encourage suggestions from their employees. The stock is widely distributed among those connected with the company. Prizes are awarded to employees for even the most insignificant devices designed to save labor or improve the product. The men are invited to call to the attention of their superiors their slightest grievances. The company's Efficiency and Welfare Department helps the men to become owners of their homes, and a large proportion of them already enjoy that fortunate condition. In the big dining room, meals are served at cost; for a few cents, a substantial lunch is obtainable. There is also a free library, and a free hospital, completely equipped, with a doctor and nurse always in attendance.

"Is it any wonder," declared S. A. Falor, "that we Goodyear folks are enthusiasts?" No, it isn't at all remarkable.

Last May the then office building was so jammed with clerks that they not only crowded elbows in the rooms, but the desks overflowed into the halls. Now the 760 clerks are housed in a new six-story administration building, 50 by 125 feet. Another six-story factory building, 60 by 56 feet, has been finished, and another one of seven stories, 400 by 80 feet, will be ready for occupancy within two weeks. Nor is this all the factory expansion, for the foundations have just been laid for a seven-story and basement structure, 260 by 100 feet, so that on its thirtyacre plot the Goodyear Rubber and Tire Company will have seventeen buildings, aggregating two million square feet of floor space.

Two more buildings are to be built—one of five stories and basement, 250 by 60 feet, and a one-story extension to the curing room, 250 by 30.

On December 7 there was a house warming of the new administration building which took the form of a banquet in the big lunchroom, followed by a ball, which 750 members of the official and clerical staff attended.

At the Goodrich plant, ye publisher had an interesting talk with Frank Harris. Here one almost feels the significance of the vast resources at the command of this big concern.

With its $90,000,000 capital the Goodrich Corporation not only leads the automobile industry in size, but is also one of the biggest individual industrial corporations in the United States, when one leaves the trusts out of consideration.

The plant itself is in keeping with its gigantic capitalization. The figures are too big to need to be spoken of otherwise than in round numbers. It is a two-mile walk around the plant, the ground area being close to 75 acres, the floor space being between 60 and 70 acres, and the employees numbering some 15,000, of which 13,500 are operatives.

Over in plant No. 2, as the old Diamond plant is now designated, they have just completed a six-story factory building, adding seven acres of floor space. In two months there will be complete a new six-story Goodrich administrative building, 270 x 157 feet.

Mr. Harris spoke of the difficulty of keeping and holding good men. Not only need no one be idle in Akron, but the tire companies find it necessary to reach far out from the city to obtain sufficient capable help. There are always plenty of good jobs open in Akron.

WHO IS HE?

EDWARD F. TIBBALS, a photographer of Rhinebeck, N. Y., forwards the accompanying picture of an Iver Johnson enthusiast who rode his mount all through the Catskill Mountain country during the past summer. Tibbals has forgotten the rider's name and is desirous of learning it. "As long as he is a motorcyclist he is bound to read MOTORCYCLE

ILLUSTRATED," writes the Rhinebeck photographer, "and when his picture appears he will probably let us hear from him."

STILL THEY COME.

THE Miami Cycle & Manufacturing Company announces the establishment of another batch of Flying Merkel agencies, as follows: Quincy, Ill., O. H. Kathman Company; Michigan, Ind., Stoddard Electrical Supply Company; Detroit, Mich., W. E. Wandersee; Latrobe, Pa., L. G. Site; Lock Haven, Pa., Ralph T. Myers; Williamsport, Pa., Updegraff & Burkhart; Nashua, N. H., William F. McCarty; Lakewood, Ohio, W. O. Alexander; York, Pa., J. P. Wolf.

SUB-AGENCIES NAMED.

THE Barr Motorcycle Company, East Gay street, Columbus, distributor in central Ohio for the Indian, has closed with the following sub-agencies for 1913: George Atkins, Atlanta; R. L. Brehmer, Circleville; Mattox Motor Car Company, Lancaster; C. H. & S. J. Van Pelt, Washington; E. W. Grant, Ashley, and Walden Haffy, of Canal Winchester.

ATLAS EXTENSION.

WITH increased floor space and new machinery the Atlas Specialty Company, of Chicago, Ill., figures on doubling its last year's output. The company now has a total of 3,500 square feet of floor space.

WINTER DANCES.

AT a recent meeting of the Columbus (Ohio) Motorcycle Club it was decided to hold a series of winter dances.

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A Motorcycle SQUIRREL HUNT

By The OLD SCOUT

HAVING made the most of my motor single-tracker for years past I have found it has many fine points—any rider will be only too glad to go into particulars—but in my humble opinion, at least, its greatest value lies in the ease with which it puts me on the spot when I go hunting or fishing. I have always been keen about these matters—so much so that I'd choose to hunt or fish any day in preference to working—but for a long time the transportation problem was a serious one. The best places are always the ones that are hardest to reach. As soon as the trolley line finds its way through a section, farewell to good hunting and fishing. Everybody can go there then, and that settles it as a desirable place. Of course, it is possible to drive a horse out from home, but a rig costs money if you have to hire it from a livery stable, and then, too, it is so deadly slow. A twenty-mile drive before beginning the fun is no joke. And few of us have incomes in the four-wheeler class.

Where the Motorcycle Comes In.

Here enters the motorcycle, and these troubles vanish till they're smaller than the inch patch with which you try to cover a two-inch blow-out. There is one problem left—the transportation of my hunting dog. At present I'm engaged in working out a scheme for putting a padded cell on the suit case conveyor for his express benefit. Whether the setter will appreciate such treatment or not is something of a question; I haven't consulted him about the proposition yet, but his opinion won't count for much, anyway. Meanwhile, I thankfully use the motor for fishing trips and for hunting such game as can be obtained without the help of the dog's keen nose.

One day I received word from some friends living forty miles back in the hills that gray squirrels were so plentiful as to be almost impertinent about there. Accompanying this cheerful information was something even more to the point—an invitation for me to run up on my machine Friday afternoon and put in Saturday attempting to lower the squirrel population. I accepted in a hurry.

Preparations for the Trip.

At first I was undecided as to what sort of musket to take. You see, the proper tool for gray squirrels is a light caliber rifle—hunting squirrels with a scatter gun is not considered proper by many hunters, though it is permitted, provided the game is running. To use a shot-gun on a squirrel that is standing still is rankly unsportsmanlike. It always happens, however, that when I hunt with a rifle it is my fortune to put up a number of Biddies (let me pause to explain that a "Biddy" is a partridge), and I frankly admit that I cannot hit a flying Biddy any too well with a charge of shot, not to mention a rifle bullet. Considering this important matter with due care, I finally decided to tote along my double-barrel hammerless.

I started about four o'clock of a delightful fall afternoon. Most of the leaves were down, but there were enough left to give the landscape a brilliant dash of color with their beautiful brown and gold. My shot-gun was in its case, carefully wrapped in burlap and firmly strapped to the luggage carrier. I was dressed in warm, heavy clothes to keep out the chill, for though the sunny days of Indian Summer may be comfortable enough,

"At this critical time came my first puncture of the season."

the air of late afternoon is likely to be a trifle frosty, particularly so when one is indulging in a forty-mile jaunt by motorcycle.

Two hours seemed a good allowance for the distance, an average of twenty miles per, but as the first part of my journey was over fine macadam roads, I kept the speed needle well above that figure, knowing that the last ten miles of the trip would be over poor roads, and possibly by lamp-light.

First Puncture of the Season.

That very afternoon I had foolishly been boasting of riding the whole season without a puncture. It is always flying the black flag in the face of Providence to brag over such things, and the worst of it was that I had neglected to rap on wood. At any rate, the hoodoo was in working order, and my hard luck jinx did its worst before I'd been on the road half an hour; I found a horse-shoe nail coyly nestling in my rear casing. I made record time snaking out the tube, glued on a patch, and was off again before the engine had begun to think about cooling. That was a short delay, but it was so much off my time limit, and I therefore went on a bit faster than before.

My next adventure was a meeting with a road hog, who sat enthroned behind the steering wheel of a huge car. He came up behind me with a silent rush, giving no warning of his approach, and then snarled a curse as he sped by, because I didn't get out of his way. No self-respecting motorcyclist could bear an insult like that. I kicked open the cut-out, flattened down on the gas tank in the well-known pose of the professional racer—learned, by the way, from a careful study of the pictures in MOTORCYCLE ILLUSTRATED—and jerked the throttle open as far as it would go. Before many minutes I went past that car as if the poor old boat had been stuck in the mud. A fellow certainly can get a vast amount of innocent amusement and heartfelt satisfaction out of driving his motorcycle past some chesty autoist, who hugs to his bosom the fond delusion that he is quite some speed merchant.

At the Farm.

No more incidents worthy of note befell me, but I didn't quite pull through in the two hours, though I arrived in time for supper, which was, of course, far more important. After a good, old-fashioned "farm feed," I loafed around, talking with the folks about hunting and other things. They were all very much interested in the motorcycle and my experiences in riding it, so I naturally felt compelled to spread myself just a little.

"Doesn't it joggle you frightfully? I should think it would simply jolt you all to pieces—shake the life out of you," were some of the

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early remarks, whereat I had to smile. I knew that first interrogation would come; it always does. Why, if I only had a five-spot for every time I've been asked that—but what's the use.

I told them all about it; that the motorcycle doesn't joggle the life out of one, that it furnishes more fun than the proverbial goat, that it doesn't cost a young fortune to own and run a machine, and so on. By the time I'd run down, the turning-in hour was upon us, and ere long I was peacefully pounding the hay, dreaming of an exciting hunt, in which I vainly strove to shoot some elusive game by ramming bullets into the exhaust pipe and then letting the engine flicker. Finally I succeeded in getting a bullet stuck in the pipe, so that the front cylinder blew up with a frightful roar and bang, which continued on and on without stopping. I leaped up in wild excitement, only to discover that the explosion of my dream was merely a vigorous pounding on the door, a gentle reminder that it was time to arise. An hour later, with a satisfactory breakfast stowed away in the proper receptacle for such things, I was bound for the upper wood-lot, where my host assured me I should find plenty of squirrels.

An Early Morning Walk.

It was a good mile to the wood-lot, but in the cool, brisk air of early morning rapid walking was easy, and I tramped along enjoying myself to the utmost, breathing forth fevent prayers of thankfulness that I was so fortunate as to own a motorcycle. The handy little two-wheeler had made it possible for me to be up there in the woods on that glorious day, instead of back in the dusty city, where one can amuse himself only by listening to the pleasant clang of a trolley gong, and by wishing he were elsewhere.

I picked out a likely place near some chestnut trees and waited to see what would turn up. In a short time I heard a squirrel bark; then another one answered, probably giving information that the coast was clear, and soon I could hear them all around me. There was hardly a breath of air stirring, and sounds traveled a long distance in the woods. The sound of an axe came distinctly to me from a farm house, fully half a mile away.

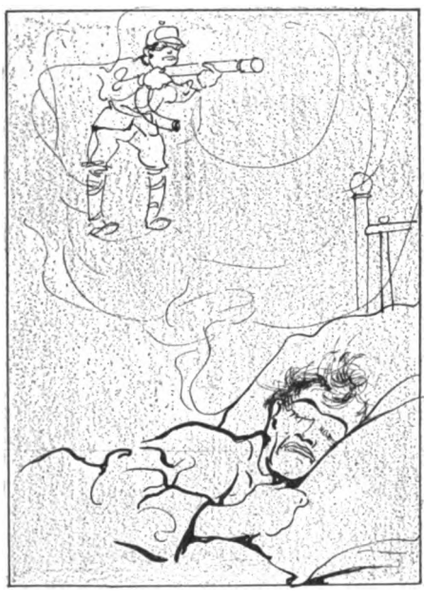
First Shot a Winner.

Two squirrels presently appeared, looking for nuts among the leaves, and I watched the little fellows with interest, almost forgetting why I was there. When I at length remembered the gun in my hands, it seemed a shame to use it; to have killed those squirrels would have been too much like murder in the first degree, and I therefore looked about for some other victim. A big squirrel suddenly rushed at the others like a fiery tornado, evidently determined to drive them away from what he considered as his private grounds. They promptly fled, the big fellow in hot pursuit, but just at that moment I cut loose with the right barrel, and that particular squirrel ceased to interest himself more in worldly matters.

Back in the wood-lot was a small swamp, and there came to my ears from that direction a dull, muffled sound, rapidly repeated. I knew it well; that sound was a partridge drumming. In an instant the squirrels were forgotten, and I was hustling down towards the swamp, bent on getting a shot at the old Biddy. Of course the partridges—there were three of them, as it happened—chose the very worst time—for me, that is—to fly up. Just as I was heaping maledictions on a thorny creeper that was doing its best to cut my throat, and trying to disentangle my feet from the loving embrace of a wild grape-vine—whir-r-r—up they went with a tremendous beating of wings. I managed to fire both barrels after the last one as he disappeared, but it only served to accelerate his progress. Then I concluded I had had enough partridge hunting, and went back to have it out with the squirrels.

Back for a Big Meal.

It is not needful to follow out my further adventures in detail. I didn't do much shooting, as knocking about the woods on that wonderful morning was sufficient pleasure of itself, without taking life. I killed just enough squirrels to avoid being jollied as a poor hunter on my return to the farmhouse, and although I didn't have all the game I could have carried in my shooting coat, I did have one big chunk of emptiness inside me. But that always happens on a hunting trip.



"I dreamt of firing bullets from my exhaust pipe at elusive squirrels."

Too few of us realize just how much we are benefited by an occasional trip off into the big outdoors. A tramp that makes one so tired that he could sleep ten hours without a peep, and hungry enough to eat buttered bricks, is of more value than all the doctor's dope that ever came over a prescription counter. All honor to the machine that helps make these excursions so delightful and so easily to be enjoyed!

A MIDNIGHT TRIP.

BY way of ushering in the New Year a number of riders of Toronto, Ont., made a midnight trip to Hamilton. Six machines, all carrying sidecar passengers, left Toronto at 9 p. m., and sped at a terrific pace over the frozen roads. The return trip was made the next day, but the going was rather slow as the sun had thawed the roads leaving about four inches of mud.

CARRIES HEAVY LOADS.

THE University Grocery Company, of Redlands, Cal., uses a motorcycle almost exclusively in its delivery. No sidecar, trailer or any such attachment is used; the rider simply carries two large baskets. A photograph recently taken showed the rider mounted with a load of about 200 pounds, and consisting of more than thirty packages.

A DRIVER of cattle near Trinidad, Col., uses a motorcycle in his work.

PATROLLING FORESTS BY MOTORCYCLE

Michigan Company Protects Vast Timber Tracts By Supplying Its Fire Wardens with Single-Trackers—Results Are Highly Satisfactory.

MOTORCYCLES are to figure prominently in a carefully-mapped campaign of the Michigan Hardwood Manufacturers' Association for protecting its vast timber holdings against fires during 1913, according to an announcement made following a recent meeting. The riders of these machines, long trained to forestry work, will cover great areas for the purpose of instructing the farmers in fire-fighting methods, distributing helpful literature and acting as fire-fighters themselves when an emergency arises.

The members of the Michigan Hardwood Manufacturers' Association own practically all the timber of commercial value in Michigan. The association holds monthly meetings at the Hotel Pontchartrain, Detroit, and at these meetings are gathered the best timber and forest experts in Michigan. Following the forest fires which consumed Au Sable, Oscoda and which were responsible for the loss of millions to the association members through whose timber holdings these fires swept, plans were devised for a forest fire protective department, under the direct control of the association.

A short time ago the association members decided to furnish their fire wardens with a means of facilitating their patrolling the respective districts, and accordingly motorcycles were purchased. With these the men can get over their territory several times each week, and keep in closer touch with the people residing in their districts, as well as taking cognizance of every fire started to sweep a patch of clearing and watch its daily progress.

So successful was the last season's work that the association will soon enlarge its motorcycle force and increase its operations in every practicable way. During the season closed the department handled 227 fires, many of which were prevented from reaching disastrous proportions by the prompt work of the motorcycle fire wardens.

PLAN BIG MEETING.

IF present plans do not miscarry, an unusually busy F. A. M. State meeting will be held in Indiana in the spring. President O. F. McClain, of the Indianapolis M. C., is working to get the clubs of the State to cooperate with the Indianapolis club, in order that the riders of the State may act in unison on matters of general interest.

DAYTON'S SHOW.

MEMBERS of the Dayton (Ohio) Motorcycle Club, recently met in the club rooms to map out plans for the local motorcycle show.

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ENGLISH NOTES by "BRITISHER"

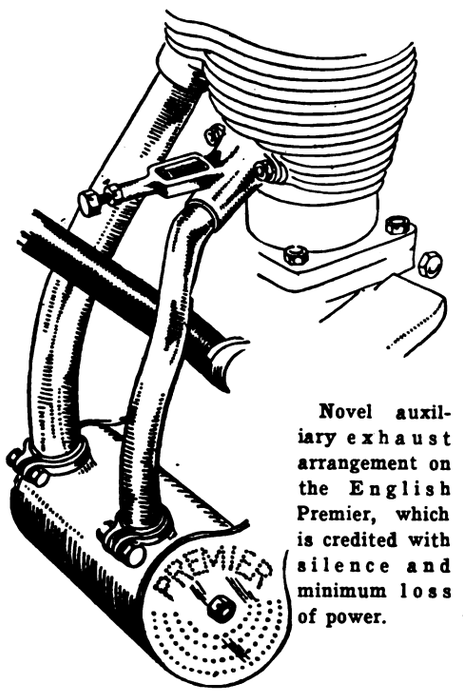
A. C. U. Ruling on Classification Problem Jars "Shamateurs"; Auxiliary Exhaust on Premier; Sidecar Ambulance; New Drip Oiler and Other British Wrinkles That Attracted Attention at the Show.

WE have long been troubled in all our sports with the difficulty of defining an "amateur," or perhaps I should say, with the difficulty of enforcing our definitions. The problem has been sidestepped for years past in motorcycling competitions. As a rule, the entry will consist principally of men engaged in the trade, openly riding for payment by the makers of their machines. Side by side with these frank professionals will be found a number of "shamateurs," or men engaged in non-mechanical professions as their main source of livelihood, but secretly subsidized by the trade to ride in competitions during their leisure time. In some cases these men receive machines free gratis, and even have all their expenses, including entry fees, paid.

Others are on the graft in a smaller way, and possibly purchase their machines and equipment at wholesale prices or less, paying their own entry fees and hotel bills. A small minority are genuine amateurs, paying full the catalog price for machines and accessories. It is impossible to enforce a stern definition of amateurism, because the trade as a body refuses to hold aloof from shady practices; last year, for example, one firm I know sold several £50 machines to "shamateurs" at £30, but supplied a stamped receipt for £50! Consequently special awards for "amateurs" and "private owners" have fallen into some disrepute, being generally won by men whose amateurism was under grave suspicion. This year our governing body, the Auto-Cycle Union, has planned a new method of belling the cat. The worst effect of the abuse was to prevent the genuine amateur and novice from riding in competition.

The A. C. U. Solution.

In future no attempts will be made to distinguish between "amateurs" and "professionals," but every open event will contain classes for "novices." Riders are to be ranged in two classifications, "Novices" and "Experts." No permit will be granted for any open meeting which does not limit at least 50 per cent. of its classes to "novices," and if promoters desire, any meeting may be "expert-barred." Single event meetings must offer equal awards to novices and experts. A "novice" is defined as a rider who has not won during 1912 or any subsequent year one first and two second prizes in open competition. The winning of a first and two seconds automatically transfers a rider to the "expert" list of the Union's register.



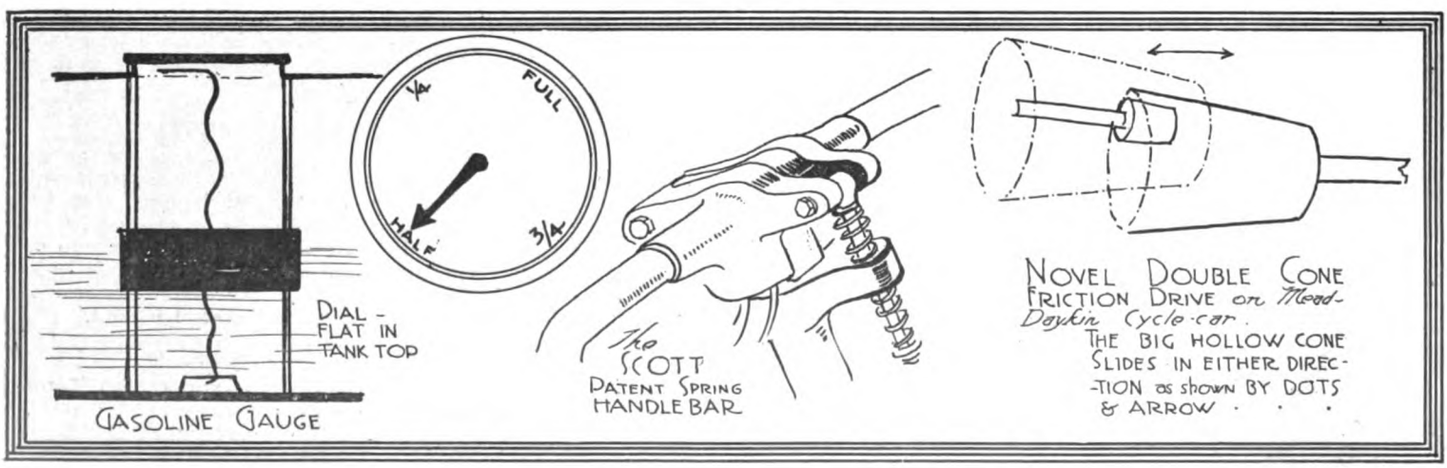
Novel auxiliary exhaust arrangement on the English Premier, which is credited with silence and minimum loss of power.

In single events with unlimited equal awards (such as "perfect scores"), the Union shall decide and endorse on the permit whether such awards shall count as first or second prizes. An "expert" who in any year fails to start in any open competition reverts to the "novice" class automatically. An "expert" who starts in open competitions but fails to win a first or second prize in any year may be replaced in the novice class on request. This method frankly recognizes the impossibility of exposing the "shamateur"; but it confines the regular prize winners to a class by themselves, and gives the private owner and the duffer a chance of victory.

It should be stated that every competitor in open competitions has to obtain a license from the governing body, so that registration is already fully organized, and the sole labor required will be to add a record of performance to an existing rollcall.

A Novel Friction Drive.

THE Olympia Show produced one absolutely novel transmission in the Mead-Daykin cone friction drive. Most friction drives depend on a pair of discs of dissimilar diameters, set in movable contact at right angles. The Mead-Daykin, as the cut shows, operates by cones. A small solid taper cone terminates the driving shaft, and this cone works against the inside of a larger hollow cone, from which the drive goes to the wheels. The two cones are of similar angle, and the larger cone can be slid backwards or forwards by a side lever and toggles. As the hollow cone is moved forwards, the gear ratio is raised, and vice versa. The friction surfaces



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are covered with a special heat-resisting material, of which the composition is a patented secret, and the contact is maintained by very strong coil springs. The motion has the effect of varying the angles of the two shafts, and consequently an extremely efficient universal joint is required in the driven shaft. The gear is fitted to a cyclecar, and has proved exceedingly efficient in road experiments.

Auxiliary Exhausts.

SEVERAL British makers are paying great attention to better clearance of the exhaust gases. I illustrate the plan adopted on the Premier engine. A light mushroom valve is located in the front of the cylinder, near the foot of the stroke, kept on its seat by a light spring, and adjusted by a setscrew and locknut. It operates automatically. It is covered by the piston for the best part of the induction stroke (when the piston is of course descending), but on the exhaust stroke (when the piston ascends from the bottom), it is forced open by the rush of gas almost before the piston has begun its stroke, and it disposes of quite an appreciable amount of gas before the rising piston covers it. The escaping gas is conducted by a separate pipe into the muffler.

Testing two Premier engines against each other, one having the auxiliary device and the other being on standard lines, I found a marked gain in efficiency ascribable to the device. The fresh charge is purer, thanks to the more complete scavenging. The valve gets a little foul in time, owing to the oil which enters it by dint of its low situation, but the oil which penetrates past it is mostly clean and uncharred. Testers say the exhaust valve proper maintains a gastight fit much longer, because the auxiliary valve relieves it of much heat.

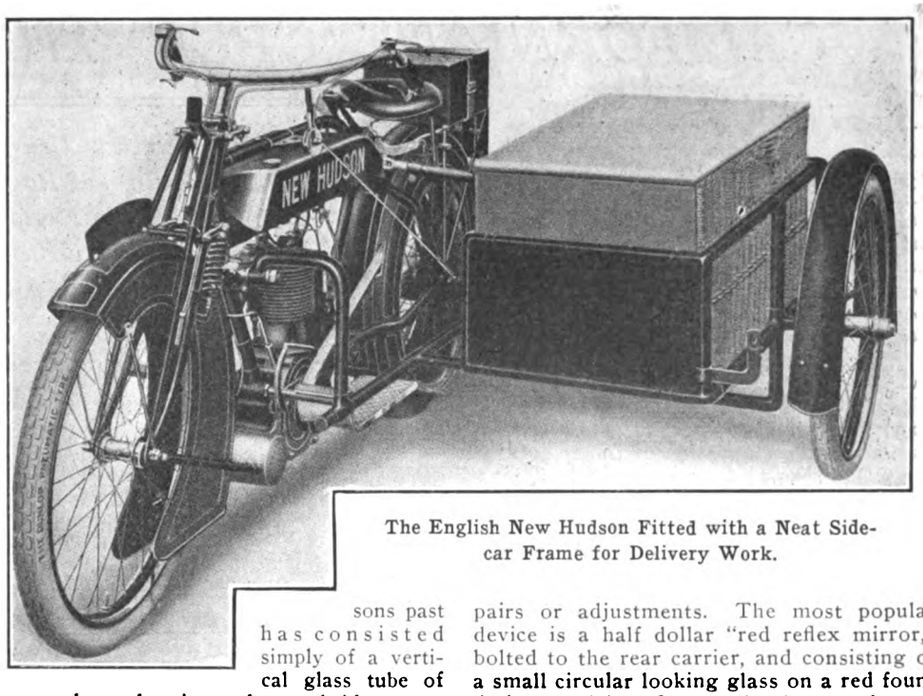
New Hudson Tank, Typical of British Design.

Sprung Handlebars.

FOILED in their efforts to notably improve the spring fork, some of our most refined designers have returned to the spring handlebar. None of them have as yet shown real originality in their efforts. The accompanying cut shows a very simple device, revived from the old Ormonde fork of 1902. It mounts a swaying bar against compression and tension springs which certainly damp the up and down vibrations which the forks fail to intercept. It may be said to damp down "steeple waves" into gently undulating oscillations, and so secures a slight addition of comfort and luxury. Over really bad bumps it is defective, and doubles the clash. First, the main fork springs clash violently, and a fraction of a second later the handlebar sustains a minor clash. But it smooths out ordinarily uneven roads like velvet.

A Revived Gasoline Gauge.

REVIVALS are quite popular just now. Gasoline gauges have already become standard, and the fixed type for two seasons past has consisted simply of a vertical glass tube of narrow bore let into the tankside, communicating with the tank by a tiny orifice at the foot, and closed—in case of a broken glass—by a long screwdown needle, with milled top projecting at the summit. These gauges were well enough, but a rider had to dismount to read them. The new gauges are a revival of another 1902 Ormonde fitment. Let into the tank top is a small dial, marked "¼—½—¾—full"; the revolving needle is fixed at the top of a flat piece of steel, spirally curved, and revolving in a skeleton frame anchored to the bottom of the tank. A cork float is threaded over the spiral strip; its sides nick into the skeleton frame, so that the float cannot revolve, and the twist of the spiral causes the needle to revolve as the float sinks. These gauges are less accurate than the tube type, but the dial can be read without stopping.



The English New Hudson Fitted with a Neat Sidecar Frame for Delivery Work.

A Typical British Tank.

THE cut shows the New Hudson tank, typical of conventional English design. It is dropped astern, following the curve of the frame, which allows the rider's feet to touch the ground. It has two taps, one to gasoline pipe to carbureter, the other over petcock in cylinder head, for starting injections when engine is cold and gummy; two baffle plates to prevent gasoline swishing about; double partition between oil and gasoline compartments; vertical tube gasoline gauge; inclined hand oiler; large filling caps, with gauze tube strainers dropped in. It holds two gallons of gasoline, and half a gallon of lubricant. It is rectanguar, flat and wide. To prevent the rider's knees chafing the enamel off its sides, when gripping with thighs in speed work, a pair of "knee grips" would be worn, viz., flat pads of rubber, mounted on a leather foundation and strapped round the tank.

A Novel Tail-Light.

OUR roads are so crowded that some form of tail-light is required by night to prevent a motorcycle from being run down from behind, especially when the machine is standing by the ditch side for repairs or adjustments. The most popular device is a half dollar "red reflex mirror," bolted to the rear carrier, and consisting of a small circular looking glass on a red foundation, which reflects ruby beams thrown into it by the headlamps of any overtaking car. Another device, staged at Olympia, is the bijou Miller combined red lamp and mirror. This is very tiny, and is mounted on the handlebar by a long bracket arm. It is reversible, having a reflecting mirror for daylight use and also a tiny burner and ruby glass, which can be fed by a bypass and rubber tube from the main lamp at night.

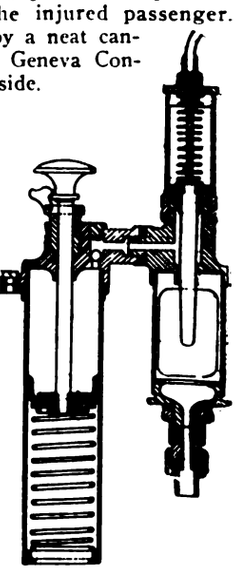
Cyclecar Seating.

THE tandem type of seating is selling well on cyclecars, because its wind-resisting properties are the maximum; but the appended cut of the Swift body shows how some designers cut down width in their coachwork and yet provide better sociability than the tandem type permits.

Sidecar Ambulance.

ON the Motosacoche stand at the Paris Show was staged the first application of a sidecar chassis to ambulance work. A light stretcher framework was mounted on a standard sidecar chassis, the sidemembers being joined by a broad strip of canvas webbing, which should provide very comfortable riding for the injured passenger. The head is covered by a neat canvas hood, bearing the Geneva Convention cross on its side.

THE sketch herewith shows an attempt to correlate oiling with the throttle opening. It is an ordinary hand-pump-fed Best and Lloyd drip oiler, on which the needle taper controlling the rate of drip is interconnected by a flexible wire with the carbureter control. A latch is fitted to hold the pump plunger down when not in use. The system is giving good results.



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CALIFORNIANS OPEN THE NEW YEAR

Cowboys Temporarily Usurp Los Angeles Stadium, but Race Fans Look for Early Meets; Prince is Back; Clubs Are Busy with Dirt Track Meets and 1913 Gossip Is In the Air.

LOS ANGELES, Jan 2.—After seven splendid board track race meets at the Los Angeles Stadium, Manager "Ric" Young came to the conclusion that the Southern California public had become weary of the motorcycle racing game and needed a rest, so he closed the Stadium as a motorcycle arena for two months and is now arranging to have programs of the bull bating variety, with cowboys, cowgirls, outlaw horses, wild ponies and still wilder steers.

In a little town in Oregon is a corporation which does the bronco busting, steer bulldogging and cowboy race stunts for the moving picture makers, and for the tourists who know that the old-fashioned cowboy performances are nearly a thing of the past. Most of the contestants in these Rodeo shows are salaried actors for moving picture companies, and the Pendelton (Ore.) people put on these "frontier celebrations" and Rodeos' even abroad. Last year when Prince was completing the motorcycle track here he turned down these Rodeo people, who were willing to give him almost the total cost of the Stadium for the use of it for ten days. Now the Rodeo people will try to show Los Angeles that the horse and cowboy are more interesting than the motorcycle and saucer track. We shall see.

Prince Is Back.

Speaking of John Shillington Prince, he is with us again; he arrived in town in time to see the last meet at the Stadium. In his absence last summer, the owners of the land upon which the Stadium track stands wiped out whatever interest Jack Prince had, also the interests of all his lessees. The rent had not been paid and the lumber company, which was as usual selling Prince the lumber on the installment plan—taking 30 per cent. of the gate receipts as payments—took certain legal action under the California law which made the land liable for the debt.

Jack Prince calls Los Angeles his home now and Mrs. Prince returned here ahead of him with the family parrot, their pet of the last fifteen years, and such other household goods as they transport east each summer. Jack reports a poor year for the board tracks, excepting in Cleveland and St. Louis, where they scored hits, thanks to cheap talent and big crowds.

Clubs Are Busy.

Berger is doing well with the *Pacific Motorcyclist*, the little journal he secured from Charles Fuller Gates, and has become a confirmed California climate boomer. At present all his song is that factories should send out new models to California instead of distributing them through the East where the riding season is closed. A timely song, too.

The motorcycle clubs are all busy pulling off club runs and getting in new members. Several California clubs had meets or road races on Thanksgiving Day and other contests are being arranged by clubs that did not hold meets or races on November 28.

The San Bernardino and Redlands Clubs had a good dirt track meet at the mile horse track near San Bernardino, this being the third meet during 1912 conducted by one or the other or both of the clubs. The Riverside M. C. sometimes combines with the other two clubs and there is a tri-club challenge cup that is usually up at each meet. Riverside is getting ready to pull off a meet on the half-mile dirt track there which is being banked and improved to hold the high power machines.

Building Towns and Roads.

It has become quite the thing now for the big real estate operators to draw on the motorcycle and aeroplane as features for opening new towns, and as is generally known, California has a new town born about once a month. Speaking of these new towns, there was a 47,000-acre ranch a few miles to the northwest of Los Angeles two years ago, mostly in wheat and barley. It was sold for eight millions and cut up into small ranches and homes. There are now three well-built towns in a row on this ranch, and one of the roads leading out of Los Angeles was paved by the owners of the ranch, so there is now an asphalt avenue in that direction for nineteen miles, which is much appreciated by both the motorcycle riders and the auto users.

New Models Arriving.

The new models are coming to the coast slowly, although there is a feverish desire on the part of all riders to inspect the 1913 machines. The first 1913 Indian reached Los Angeles this week and has been examined by a host already. The Merkels seem to be machines that will attract much attention, as this make has never been supplied in California as fast as demanded and the radical changes are interesting.

The big tour for next summer of the Los Angeles Motorcycle Club, which is to have the "Dare-Devil Derkum" title of the "Sunset Ramble," is already being planned for by many couples, and no doubt a majority of the machines in the run will be tandem ridden. Much of the 1,000 miles or more of the ten-day journey will be over ideal roads and through good sized towns, where creature comforts and amusements will be plenty.

RAPID PROGRESS FOR ROAD CLASSIC

PROMISES of entries for the Chicago Motorcycle Club's big road race, to be held July 4, have been pouring in at the headquarters so rapidly of late that it has been considered advisable to limit the number of contestants to 100, and interest in the event has reached a high pitch. It was not believed at first that the club would be called upon to limit the entries, and the fact that it has been forced to adopt this measure gives an insight into the enthusiasm with which the project is being received. Among the clubs that have promised entries and general support are the Invincible M. C., of Brooklyn, N. Y., and the Cedar Rapids M. C. The Marietta (Ohio) M. C. has pledged its support, but is unable to guarantee entries at present.

The Chicago club has opened negotiations with several foreign stars with a view of giving the race an international aspect, and strenuous efforts are being made to obtain at least one entry from across the water. The club now states positively that the first prize in the 250-mile classic will amount to $500, aside from a trophy; a cash prize of $200 pledged by the V-Ray Company, manufacturer of spark plugs in Marshalltown, Ia., with the other cash awards, will bring the total for the first prize at least to the $500 figure. The trophy to be donated by the Marshalltown company will be known as the V-Ray Spark Plug Cup.

It is expected that the entry blanks will be ready for distribution at the National Shows. The entry fee until May 15 will be $10; from that date until June 15 it will be $25. All entries after June 15 will be regarded as post entries, for which the fee has been placed at $100.

A POPULAR PRESIDENT.

AT the annual election of the Oshkosh (Wis.) M. C., Noel J. Houze, who has already served as president for two terms, was re-elected. Guy Oaks was elected vice-president; E. F. Nelson, Jr., secretary; Eugene Shannon, treasurer, and Guy Hanson was chosen road captain.

AT the annual election and business meeting of the Englewood M. C., of Chicago, officers for the coming season were elected. R. T. Purdy is president; J. Brandt, vice-president; C. Shiplock, secretary, and P. C. Thom, treasurer.

NOT less than forty-one members and guests were present at the annual banquet of the Reading (Pa.) Motorcycle Club, held at the Fairgrounds Hotel.

BAKERSFIELD STAFF.

MEMBERS of the Bakersfield (Cal.) M. C., recently held their annual election of officers. The new executives are as follows: L. C. Dunn, president; Arthur Nagle, vice-president; Fred Stoekl, recording secretary; Frank Lightner, secretary-treasurer and L. C. Dunn, sergeant-at-arms.

GOING ABROAD.

JOE ESLER, of Quincy, Ill., and John E. Hogge, a well-known aviator, who at the present time is attending the University at Urbana, Ohio, are planning to make a tour of Europe during the coming summer.

CLUB IN NEW BERN.

A NUMBER of motorcyclists of New Bern, N. C., recently formed the New Bern M. C. J. Leon Williams was elected president; David Morris, vice-president, and Dr. Ernest Dunn, secretary-treasurer.

MAY AMEND LAWS.

A RECENT statement from Mayor S. C. Park, of Salt Lake City, is to the effect that the laws governing motorcycles will probably be amended early in 1913 in a way that will be pleasing to the riders. This is due largely to the efforts of the Salt Lake City M. C.

During the first seven months of 1912, 7,000 motorcycles were licensed in Pennsylvania.

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MOTORCYCLE ILLUSTRATED

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J. LEO SAUER
President

EDITORIAL VIEWPOINTS

THURSDAY JAN. 9, 1913

Entered as second class matter July 6, 1908, at the Postoffice at New York, N. Y., under act of Congress, March 3, 1879.

H. N. CONDICT
Secretary

THIS issue of MOTORCYCLE ILLUSTRATED, both in its editorial scope and the character and number of its advertisements, proves conclusively the breadth and the stability of the motorcycle industry. A number such as this is not possible except in a trade of big dimensions and even larger promise. Each year we have witnessed the realization of our fondest hopes, and we are today more confident than ever before that predictions of a really wonderful Nineteen Thirteen are entirely in order.

Elsewhere in this issue is published a diagram showing a comparison of 1911 and 1912 motorcycle magneto deliveries with those made thus far for 1913 use. The analysis is tremendously interesting and, as well, decidedly gratifying. It indicates a production which no one could have dreamed of two years ago, an output which will all but double the number of motorcycles now in use.

Our 1913 prophecy has to do with conditions *three years* from date, and is to the effect that in January, 1916, there will be in use in the United States one million motorcycles.

We hope that all who read this will be spared to review it all in 1916, thus: Now in use, 175,000; 1912 output, 125,000; 1913, 175,000; 1914, 225,000; 1915, 300,000—total, 1,000,000.

DISAFFECTION on the Coast will occupy most of the attention of the F. A. M. Directors when they meet in New York the fifteenth of this month. The Board, it may be said, has always been kindly disposed towards the Pacific Coast members of the organization, no matter what some of their number may think to the contrary. Nor do the Directors feel at all nettled over the fact that there is talk on the Coast of another organization. Movements with that object in view are quite inevitable in the ordinary course of events.

If members on the Pacific Coast, or in any other part of the country, for that matter, have grievances, the Directors want to know what they are, and to do all in their power to remove the cause. This will not be as difficult as it may seem to some. If the Pacific Coast boys, because of their distance from headquarters, desire a greater measure of self-government, why shouldn't they have it? If they feel that dues and sanction fees paid by them should be returned in proportionate benefits, why should their wishes be disregarded? And, if these two concessions are granted, they will be vastly better off within the fold of the F. A. M. than they would be as a separate organization or the small end of some automobile association.

IF there is anything which brings a smile to the lips of an F. A. M. Director in these strenuous days, it is the insinuation that the manufacturers of motorcycles are disposed to attempt to wield an influence in the affairs of the organization. At the expense of being personal, the writer is pleased to cite his own experience in the premises. Being both a publisher and an F. A. M. Director, he might be made the victim of these alleged solicitations. In justice to the manufacturers, however, it should be stated that not once since his election as a Director of the Federation has any manufacturer, dealer or anyone else in the trade even suggested his course of action in any single matter concerning the F. A. M. The talk of trade influence in the organization is so utterly absurd that those who indulge in it thereby prove themselves absolutely unworthy of confidence in anything they may say. It is only fair to the manufacturers to make it plain that their attitude towards the F. A. M. has always been liberal, generous and broad gauged. They have always been ready to help the F. A. M. in every worthy project, and still they have never asked a single favor of the organization. In view of the actual facts, as against the wild allegations of folks who simply do not know whereof they speak, it is high time that this silly babble about the trade trying to run the F. A. M. came to a halt. The trade is too busy trying to meet the demand for machines to even have time to worry about the F. A. M.

MEN who know the direction of trade currents are all but unanimously of the opinion that 1913 business in the United States will be excellent. Congress may succeed in preventing anything resembling a real boom but, no matter what course the politicians may pursue, trade in general lines will be uniformly satisfactory, and the so-called side lines will be liberally included in the public's demand for merchandise. Even though business were to slump, it is not probable that this trade would be seriously affected by the recession The sale of motorcycles will be record-breaking under all conditions except those of an unprecedented panic, which no one fears.

Under the circumstances, it ought not to be difficult for any reputable company producing a popular motorcycle line to finance any reasonable proposition. It can be demonstrated to the holders of capital that the motorcycle business offers a promising opportunity for good investments, turned into enterprises which stand strictly on their merits. Stockjobbers, who have already made their unpleasant influence felt in the automobile industry, need not, however, apply.

ELMIRA CLUB DOINGS.

ELMIRA, N. Y.—At the annual meeting of the Elmira Motorcycle Club an amendment to the constitution was adopted providing that candidates for membership be voted upon at the first meeting after their names have been considered by the membership committee. The following officers were elected: Harry R. Burgess, president; Phay B. Rutan, vice-president; Leroy Morris, recording secretary; T. C. Sayles, financial secretary; George Ells, treasurer; W. B. Allen, captain; William Mahoney, first lieutenant; Henry Rohver, second lieutenant; directors—F. S. Ellett, B. A. Forsythe and P. B. Rutan; membership committee for one year, George Ells, Phay Rutan, and Marsden T. Gerity; house committee, Leon Peters, three months; George Morris, two months, and W. B. Allen, one month; entertainment committee for one year, B. A. Sayles, M. T. Gerity and T. C. Sayles.

Toward the end of the meeting, Mr. Sayles presented his resignation as financial secretary, and President Burgess appointed Marsden T. Gerity to act until a successor to Mr. Sayles is elected at the next monthly meeting. Talk of a banquet is strong among the members, and it is probable that a committee of arrangements will be appointed in the near future.

On New Year's Eve, the club held open house, and about 200 guests were entertained.

CHICAGO PROGRAMS

A MASQUERADE BALL will be given by the Chicago M. C. at its headquarters on January 18. On Wednesday evening, February 5, during the Chicago Show Week, the club will give a stag party and smoker. Elaborate arrangements are being made for the program. The affair will begin after the close of the show on that evening and special cars will be run from the exhibition building to the club-rooms.

MINNEAPOLIS ENDURANCE RUN

MOTORCYCLISTS of Minneapolis, Minn., held an endurance run on January 1. The route was over a 105-mile course. The roads were ragged and unfamiliar to most of the contestants, only two of whom finished the run.

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PITTSFIELD ALLIANCE

RUMORS of an alliance between the Western Electric Company, 463 West street, New York City, and the Pittsfield Spark Coil Company, have now been confirmed by officials of both firms and unusual interest is being aroused by the announcement of the merger. It has long been expected that the enormous increase in the demand for electrical appliances to be used on motor vehicles would lead one of the big electrical companies to enter this field, and the advent of the Western Electric Company, allied with the Pittsfield firm, is therefore a development of prime importance. The Western Electric Company is one of the biggest firms in its line in the United States, its business footing up to $70,000,000 a year. The large engineering force of this company will work in conjunction with the Pittsfield engineers in developing new apparatus, and big things are expected as a result of the combination.

Under the arrangement between the two companies the entire line of Pittsfield products including magnetos, spark coils, spark plugs, timers and switches will now be marketed exclusively by the Western Electric Company, under the name "Western Electric-Pittsfield." For a while the Pittsfield company will continue to sell some magnetos direct.

It is stated that a sales campaign will be launched, covering the entire line of Western Electric-Pittsfield devices which has been materially extended to take care of the allied business.

The Pittsfield magneto has, during the last few years, been undergoing a process of careful development. Extended tests under severe operating conditions show it to be one of the best. The new line now to be placed on the market includes the fixed spark magneto known as type "F" for the smaller automobiles and automobile trucks. These will be furnished for all sizes of engines. In addition to this the type N magneto for variable spark control will be furnished for both independent and dual ignition systems for all sizes of engines. A peculiar characteristic of all Western Electric-Pittsfield magnetos is, that while they are of the true high tension type, there are no moving wires.

The Pittsfield spark coils have always enjoyed a reputation for high efficiency and reliability. Under the new arrangement several new types are offered to round out the line. The "Jewel" mica spark plug which the Pittsfield Company has so long manufactured has always been one of the leaders in the market. To this has been added a complete line of porcelain spark plugs and combination porcelain and mica spark plugs all of which will be built along the same conservative lines heretofore pursued by both the Pittsfield and Western Electric companies, and will embody the best of materials and workmanship.

The sales efforts of the Western Electric Company will be directed largely toward manufacturers and supply houses. Ample stocks will be carried at each of the twenty-eight Western Electric distributing houses, located at shipping centers throughout the country. Descriptive booklets of the new apparatus are now being sent out.

V-RAY SPARK PLUGS

MARKED changes have been made in the V-Ray spark plug, as manufactured for 1913 by the V-Ray Mfg. Co., of Marshalltown, Ia. It is credited with being the first plug without a chamber or recess of any kind in the section of the shell exposed to the cylinder, and is thus free from sooting and carbonization troubles. This plug has no porcelain and no mica exposed to the heat of the cylinder; its construction embodies a block of flint-like lava which is not affected by heat or oil. The only mica used in the plug is that which protrudes above the top of the plug itself, where it does not suffer from the heat. The terminal cap fits all cable terminals and has a novel self-cleaning feature. The 1913 V-Ray electrodes are of uniform length, adaptable to the valve clearance of any motor.

V-Ray plugs are made in four sizes, ½-inch standard, metric, ⅞-inch A. L. A. M. and standard motorcycle type. In addition to the new style of plug the V-Ray company will continue its porcelain plug, which also shows improvements for 1913.

TO YELLOWSTONE PARK.

J. E. GRONE.—Leaving St. Joseph go directly south and then southeast to Kansas City, Mo., at which point cross the Missouri River to Kansas City, Kan. From the latter town go west, via the Belt road, passing through Topeka, Manhattan, Solomon, Salina, Wilson, Russell, Hays, Wakeeney, Oakley and thence north to Colby. Leaving Colby, go west again to Goodland, then over the Colorado line to Limon and Riverbend, at which town turn northwest to Denver.

From Denver go north to Cheyenne, Wyoming via Greeley. Leaving this city go west to Corbett, Borie, Otto, Granite Canyon, Ozone and Buford. From Cheyenne to Ozone the road is just north of the railroad tracks, and from Ozone to Buford it is on the southern side. After leaving Buford the road again crosses the railroad and from this point to Colores you will not be within five miles of the tracks. The route leads west for about fifteen miles, then north for several miles, and thence west again. At Colores you cross the railroad tracks and continue west for about five miles until you come to the second pair of tracks, and then north to Red Buttes. From this town go directly north, on east side of the railroad to Laramie.

In leaving this town, follow the road farthest west, passing through Bona, Howell and Wyoming, at which point cross to the east side of the tracks. Continuing in a northwesterly direction you will cross and recross the tracks at the various towns. Your route passes through Bosler, Lookout, Rockriver (leaving this town follow the road to your left), Medicine Bow and Allen. Continuing westward, just south of the Union Pacific tracks, you will pass Hanna, Walcott, Fort Fred Stele and Greenville to Rawlins. Leaving Rawlins you will leave the route alongside the railroad and go north. At a fork in the road just north of Rawlins keep to the left, passing through Lorey, Lost Soldier Ranch, Rongis, Fletcher, Myersville, Hailey and Lander.

Shortly after leaving this town you will enter what is known as the Wind River or Shoshone Indian Reservation. Your route leads northwest through Shoshone Agency, then northeast to Ft. Washakie. From this point go northeast for a couple of miles, then north and northwest to Lenore. Continuing along the same road you will pass through Angelos Ranch, Dubois and then, just before you reach the town of Union, follow the road to your left. Going northwest along this road you will have a very long stretch with no towns, the first being Moran.

OFFICERS of the Board of Health, of Dayton, O., have asked for an appropriation with which to buy a motorcycle.

NEW INDIANAPOLIS FIRM INCORPORATES

INDIANAPOLIS.—The Wizard Motor Company was incorporated January 2 for the purpose of manufacturing motorcycle motors. The officers are: Edward H. Habich, president; P. S. Florea, vice-president and treasurer, and O. C. Forbes, secretary. All are residents of Indianapolis and have been actively engaged in business in this city for the past ten years. The company is made up exclusively of Indianapolis capital and has ample funds to push the business as fast as conditions warrant.

The company will build a two-cylinder, 10-horsepower twin motor, which has been designed by J. L. Yarian, who for the past two years has been connected with the Pope Company, and previous to that was identified with the Yale. He designed the motors now being used by the Pope Company, and got up the 1910 and 1911 models for the Consolidated Manufacturing Company.

The sales end of the business will be handled by H. T. Roberts, of Chicago.

MEMBERS of the M. M. C., of Middletown, N. Y., recently held their annual election of officers. The new staff is as follows: President, C. Girning; vice-president, E. Dexter; secretary-treasurer, F. S. Gillespie; Raymond Foote, captain.

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WHAT LOS ANGELES DEALERS ARE DOING

Uniformly Enthusiastic Reports from Coast City Tell of 1913 Agencies and Extensive Preparations Now Being Made to Handle Them — Unprecedented Demands for the New Models.

LOS ANGELES.—To possess the agency for a leading make of motorcycle in Los Angeles is better than to own a factory almost. C. Will Risden, pioneer motorcycle agent in Southern California, who has sold the Indian since it was introduced, sold 1,169 Indian motorcycles during the first 11 months of 1912, and could get no more, so had to stop selling new 1912 machines and begin gathering in second hand machines from those who were willing to wait delivery of the 1913 Indians. The last shipment from the factory was on September 14, and as 347 orders are booked on 1913 Indians, it is plain that Mr. Risden could have sold 1,500 machines during the whole of 1912 if he could have had them on hand.

On December 10, Mr. Risden opened a branch house at Riverside, which is about 65 miles east of Los Angeles, and one of the three cities of the orange belt in a district that is only separated from the great desert by the mountains. Clyde Hafer, who has been traveling for Stevens & Co., of New York, is in charge of the new Riverside branch.

The only outside territory handled by the Los Angeles Indian agency is the Southern California district, about 300 miles long and not averaging 50 miles wide. Mr. Risden says he expects to sell 2,500 Indians during the coming year, as he expects that the factory will now be able to supply machines as fast as he can sell them. There are 20 men on the pay roll of the Risden establishment, which is just off Spring and Broadway, on Eighth; it is the headquarters of the racing men. The repair department keeps 7 men busy.

Outside of C. W. Risden, the only other old timer, now in the motorcycle trade is C. L. Smith, whose present establishment is on the northwest corner of Olive and Eighth streets. Mr. Smith really introduced the Merkel to Southern California, although it had been sold to some extent by several others before Mr. Smith took it up. The past year Mr. Smith has introduced the Pope and has sold 125 machines of this make. Most of these were of the small type as the first of the 1913 models did not arrive until the middle of November. Only about a score of these have been received and no twin-cylinder machines have arrived as yet.

Recently Smith has gone into jobbing motorcycle supplies and now has accounts with every motorcycle dealer in Southern California. His son Harry W. does the traveling and is meeting with great success. "Most used parts of all makes of machines," is the slogan. Two men are employed in the repair department, and the pay roll consists of seven. A larger store will soon be needed.

The Appeal Mfg. & Jobbing Co., with a warehouse and bicycle factory of its own, controls both the Harley-Davidson and Merkel agencies in California, and for the former it also covers several adjoining states and the islands. About 1,200 Harleys and 600 Merkels have been sold during the last year, while the retail business of the Harley-Davidson motorcycles and the various brands of bicycles is controlled by a retail house, the Passmore & Sayre Co., on Main street, near Ninth, on the new Motorcycle Row.

The Passmore & Sayre Co. operated for several years just around the corner from the Indian agency. During 1912 the retail agency of the Harleys reported 420 sales, which for months at a time were all single-cylinder machines.

Five men are kept busy in the repair department and for some time P & S did all the police machine repairing Naturally there was a big sale of bicycles. The estimate on Harley sales for 1913 is 600 in the retail, while the wholesale department is 3,000 sales.

The Los Angeles Motorcycle Co., which was the pioneer second-hand motorcycle store on the Coast, secured the agency for the Merkel last spring, contracting for 200, all of which have been sold. H. B. Drollinger is manager. In the repair department four men are kept busy all year and eight in the busy season. Mr. Drollinger expects to have the Merkel retail agency during 1913, but one of his former salesmen announces that he has obtained the agency. A big business in parts of various makes and in supplies of all kinds is carried on by the L. A. Motorcycle Co., which is located at the junction of Spring and S. Main streets.

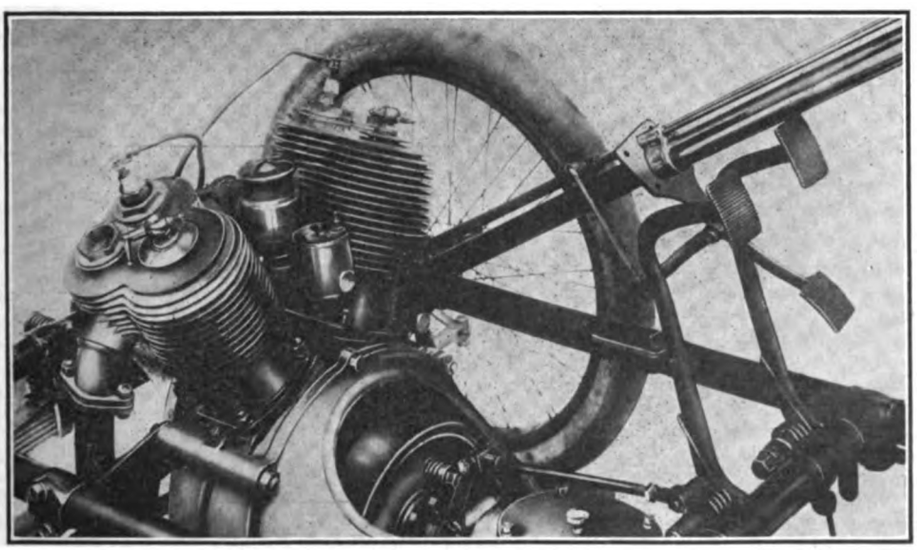
W. H. Whitesell, California distributer and Los Angeles retailer of the Excelsior motorcycle, reports a record-breaking year and claims to have handled about 1,800 machines in California. He expects a bigger year in 1913 and will give up his line of bicycles and sell nothing but motorcycles and supplies. Four men are kept in the repair department and several salesmen are employed. Mr. Whitesell does most of the traveling. Recently the Excelsior store was removed from 628 S. Spring to the present large store below Ninth on Main, where the new motor district is located.

A. M. Kupfer opened in the former store of W. H. Whitesell and operated there as sub-agent for the Flanders and Yale until the building was torn down, when he moved to the new store adjoining the Harley-Davidson agency and took the state agency for the Henderson. Nine of the 1912 Henderson machines were sold and the first 1913 has just arrived. The county road police have ordered eight of the new Henderson motorcycles and will soon receive them. Mr. Kupfer has a few Yales on his floor, but will not have the Yale agency this year. During 1912 he delivered about 100 Yales. In February he will open a branch in San Francisco to sell the Henderson.

Sexton & Berry is a new firm at 918 South Main street, which announces that it will have the local Merkel agency.

C. M. Frink introduced the Wagner machine in this state and sold it with considerable success until the factory stopped making machines on July 1. He sold the 50 he was able to secure before July. Recently he took up the Yale and expected to job as well as retail, but will now handle accessories exclusively as a branch of the Motorcycle Accessories Co., of St. Paul, incorporating as the Motorcycle Accessories Co., of Los Angeles. He will be joined by his father, C. E. Frink, who is on his way here from Minnesota. The present store, with a big repair department, is located on Olive street, between Eighth and Ninth, but a new place will be opened at 914 South Main, in the heart of the new district. It will be the finest motorcycle supply house in the far west, Mr. Frink says enthusiastically.

Thors are sold in Los Angeles at the branch house of A. Freed, of San Francisco; E. Lebell, manager, and A. Tee Wilson, sales manager. Mr. Lebell reports 900 Thors sold south of the Tehachapi this year. He says if he could have gotten them he would have sold 150 machines during November and December. Only wholesale bicycle business is done by this house, but this will be given up after the first of the year when the new double store is occupied at 924-926 South Main street. The big repair department will be enlarged and generally improved.



The Humberette Motor, an Interesting Cyclecar Feature of the Recent British Show in Olympia.

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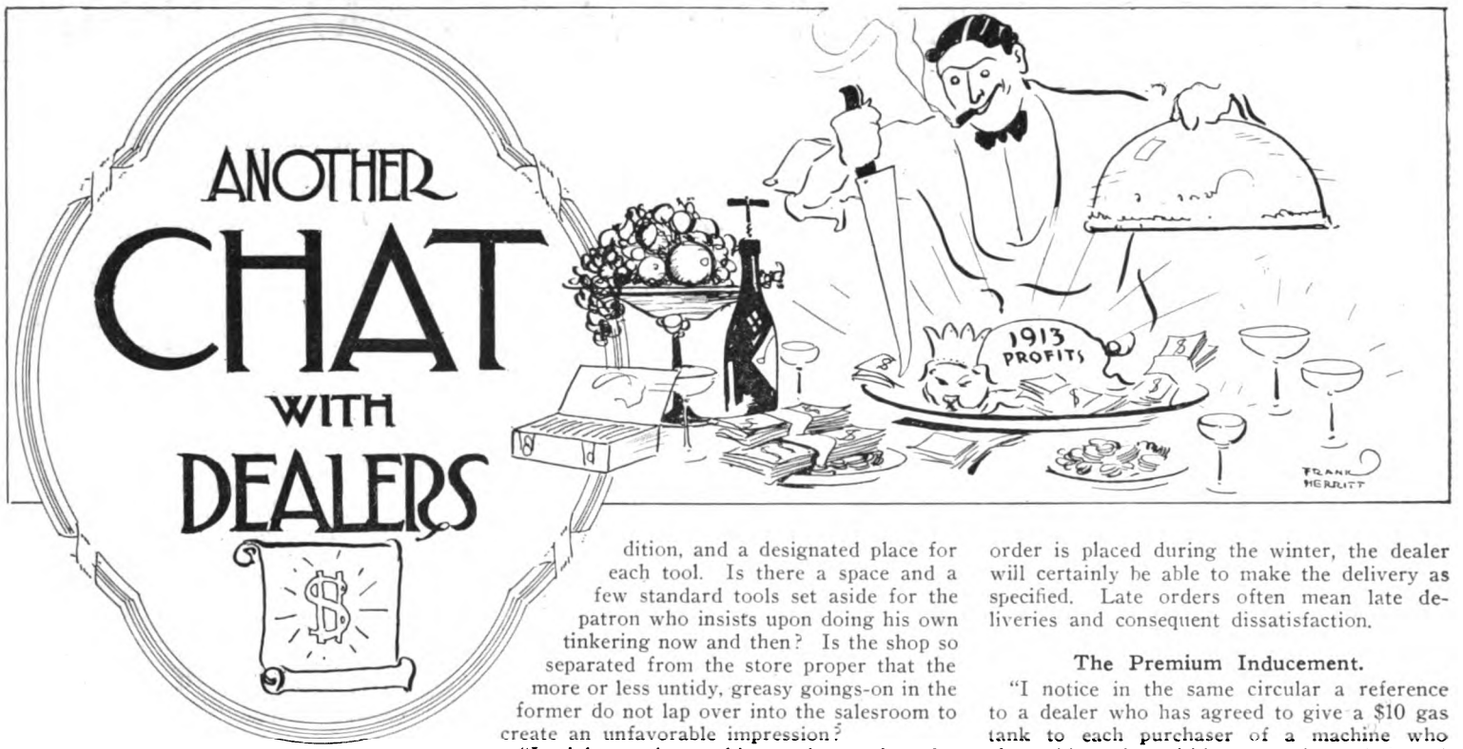

"I NOTICE the national information bureau for motorcycle dealers is advocating the planting of sales seed during the cold weather months, in order that a full measure of business may be reaped throughout the summer," said the Veteran Dealer, as he wiped his hands on a ball of waste, "but I have not seen a suggestion as yet to the effect that part of the winter season should be devoted by the dealer to systematizing his establishment preparatory to the time when the sales begin. In my opinion it is quite as important to be ready for the sales as it is actually to stir up the business. I don't mean simply that a dealer should fill his salesroom with the new models, in order to be prepared for prompt deliveries, but that he should look around his shop, decide how he can improve it and how he can change his whole policy for the better, and then get busy—now.

"In a short time 1913 business will be in full swing and any contemplated improvements will put aside for another season. Sales will be made, patrons and prospective patrons will take up the dealer's time, and once more the shop—and to some extent, the salesroom—will have to work out its own salvation. In the latter process profits will dribble away, and, no matter how carefully the dealer has planted his sales seed, he will not reap more than about seven-tenths of what really is due him.

Making the Most of the Business.

"The best motorcycle establishment I ever saw still offered opportunities for improvement," continued the Veteran Dealer, as he tucked the ball of waste neatly into a little closet with a snap lock, "and I know from personal experience that a single glance around a shop at any time will disclose numerous details that need attention. If parts are kept, is there a series of drawers or carefully marked boxes for them? Is there a properly arranged section for the storing and handling of gasoline and oils, and is a strict account kept of the sales of these wares? Is there a full stock of the commoner tools, in good working condition, and a designated place for each tool. Is there a space and a few standard tools set aside for the patron who insists upon doing his own tinkering now and then? Is the shop so separated from the store proper that the more or less untidy, greasy goings-on in the former do not lap over into the salesroom to create an unfavorable impression?

"I might continue asking such questions for half an hour," persisted the Veteran Dealer, "but the whole situation simmers down to this: Is the dealer ready for the business when it comes to him? When he cuts up each sale and lays aside the profit due him, is he going to retain the bulk of that profit or is it going to get away from him in any one of a dozen ways? The profit-cutting is going to be rapid and widespread during the coming season, but after all is said and done we are not half as much interested in the number of sales as in the amount that will be left in the dealer's cash drawer when the snow flies in the fall of 1913. With anything like reasonable handling the sales will be plentiful enough, but keeping a few real shekels to show for them is almost a fine art.

An Easy Payment Plan.

"Getting back to that idea of planting sales seeds during the winter so that we may reap in the summer," said the Veteran, "I have just received a circular from the dealers' information bureau, which suggests a simple method of disposing of a machine. It is pointed out that when a motorcycle is sold on an instalment basis the dealer is obliged to charge interest on the deferred payments, and to avoid this a plan is outlined by which the order is taken and the payments started during the winter. Delivery is guaranteed on a certain date, and the payments are so arranged that about half the price of the machine has been turned over when the time arrives to place the motorcycle in the purchaser's hands. In this way no interest is charged, the buyer has made half the payments on his machine during the winter when there are few other demands made upon his money and the dealer has only a few more collections to make before he can call the deal closed.

"This strikes me as a good idea. The buyer reaps the benefit of the easy payment plan without being charged interest for it, and the dealer has a good part of the purchase price in the spring when he needs it most, as a rule. There is another very important point: If the order is placed during the winter, the dealer will certainly be able to make the delivery as specified. Late orders often mean late deliveries and consequent dissatisfaction.

The Premium Inducement.

"I notice in the same circular a reference to a dealer who has agreed to give a $10 gas tank to each purchaser of a machine who places his order within a certain period, and this is another worthy idea. It has its limitations, of course, but it should help to round up a lot of early orders. Where premiums are given, the dealer must count upon rapid sales and quite a large number of them, in order to offset the cut into his profits, but it is likely that his policy of generosity will bring about just such results.

"There is just one more idea for dealers that strikes me now," said the Veteran, "and if properly handled it should be as fruitful as any we have considered thus far. It involves the organization of a club by a dealer in every town where the motorcyclists are not already banded together. A club, even a very modest one, is a valuable publicity factor and an ever-present influence for the spread of interest in the sport. In motorcycling, more than in any other sport, one enthusiast makes others, and when the element of sociability is combined with the general fascination of the motor two-wheeler the making of recruits is greatly simplified. It is obvious, of course, that the dealer's aim is to make recruits, in view of the fact that they stand for business expansion.

"Now is the time to launch new clubs. The boys should be brought together and interested in plans for the riding season, and it is my opinion that the dealer who works along these lines will soon obtain his reward. As soon as the boys begin to take a fraternal interest in him, they will help him plant the aforementioned sales seed and assist him with many small but important details. A club is an asset for the dealer in any city, but in a country place, where the agent needs every possible influence behind him, it is practically a necessity. The dealer who organizes a club will probably have to spend a few dollars in the undertaking, but the money will be well invested. And now's the time."

S. B. ROBINSON, of Ocean Park, Cal., has just completed a trip from Grand Forks, N. D., to Los Angeles. He made the trip in 25 days, riding a Reading-Standard, belt-driven machine.

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BULLETINS FROM BUSY CLEVELANDITES

AS this issue goes to press Cleveland's Show is in full swing. Every local motorcycle dealer is represented at the Show and every prominent make of motorcycle is on exhibition. The Casino Cycle & Supply Company and the Lister Motorcycle Company are the largest exhibitors in the motorcycle line. Among the other dealers represented are: L. J. Mueller, I. H. Silsby, The K-V Motorcycle Company, Vincent Brothers, P. J. Carlton, The Hall Cycle Company and L. Layman.

CLEVELAND, O.—"Gus" Tyler and "Brownie" Brown, both well known to Cleveland motorcyclists, have opened a repair and manufacturing establishment at Union street and Broadway, this city. They intend to feature the production of a new design of sidecar which Brown has perfected during the past year, in addition to catering for general motorcycle repair work. The firm will handle a sub-agency for Flying Merkel machines and may also sell the Yale.

"Bill" Lister, of the Lister Motorcycle Company, has been putting crimps in the pride of some of Cleveland's speedsters of late with his new Harley-Davidson twin. Lister tips the scales at about 200 pounds, but he has a standing offer of a fifty-dollar side bet for a race with the owner of any stock seven in the city.

"Louie" Mueller found it necessary to display a "We-are-open-evenings" sign during Christmas week in order to meet the demands made upon his staff by prospective purchasers of 1913 Indians.

I. H. Silsby, Merkel agent for 1913, in Cleveland and five surrounding counties, has returned from a business trip through his territory on a Merkel 4.

Annual Show in Sixth City is in Full Swing and Dealers are Primed for Big Things—Late News of the Agencies.

John Zucker, manager of the Casino Cycle & Supply Co., has moved his business into a new establishment four doors east of the old headquarters, and is displaying the new Thor and Excelsior models. His repair department will be in charge of Herman H. Sill, formerly connected with W. D. Andrews, of Buffalo.

The Guide Motor Lamp Co. is erecting a new factory building on Madison avenue between West One Hundred and Fourteenth and One Hundred and Fifteenth streets, where it plans to double the output. A motorcycle lamp is included in the 1913 catalog.

The repair department of the Lister Motorcycle Co., which occupies a building apart from the salesrooms, has received the finishing touches and is in charge of C. A. Leonard, formerly connected with the Peerless Automobile Company. The salesroom is being redecorated in the Harley-Davidson colors.

Vincent Bros. have received their 1913 twin Pope demonstrator, and several orders have been filed. The other models are also on display.

A. J. Hall, Inc., 3732 West Twenty-fifth street, will continue to handle the M. M. line for 1913, and he has also taken on the De Luxe. Nine of the latter have been sold for spring delivery. The firm is producing a patented package carrier which will be marketed at $25. It consists of a wire basket that extends over and beside the rear wheel in such a way that it affords a large capacity while retaining strength and pleasing lines.

The Goodyear Tire & Rubber Co., recently conducted tests of tire wear on a sidecar, the Motorcycle Quick Delivery Co., of Cleveland, furnishing a van outfit for the trial. It was found that driving in car tracks was one of the most noticeable causes of unusual wear on the tires.

What is known as the West Side Motorcycle Quick Delivery has been established by the K-V Motorcycle Company, of Cleveland, Ohio. The company is using Henderson and Wagner machines with sidecars.

I. H. Silsby has closed with the Clifton Park Auto Co., to handle the Flying Merkel for Rocky River during 1913.

Glen Crandall, a former Akron boy, is now on the sales force of L. J. Mueller. Crandall is quite widely known as a speedster.

Announcement is made that the Bosch Magneto Co. is to open a branch in Cleveland where the exceptional service afforded Bosch patrons in other cities will be afforded. The location of the branch has not been decided upon.

PAPERS providing for a change in name have been filed with the secretary of state by the Auto Rubber and Cycle Supply Company, of Youngstown, O. The new name is the Auto Rubber & Mill Supply Company. The company will continue to handle a complete line of automobile and motorcycle supplies.

JOHN T. BILL, of Los Angeles, agent for the R-S, Pierce and Emblem lines, is recovering from a rather serious illness. Following an injury to his back he was threatened with pneumonia.

MILWAUKEE SHOW.

ARRANGEMENTS have been made for an impressive display of motorcycles at the Milwaukee Automobile Show, January 11 to 17, and it is stated that the motor two-wheeler will be exploited more satisfactorily than ever before at a display in the Wisconsin city. The show will be held in the main hall and annex of the Auditorium.

OUT OF BICYCLE RANKS.

MRS C. C. HOLLISTER, of Wauseon, Ohio, for several years an ardent bicyclist, has now joined the motorcycle ranks and is accustomed to join her husband on long trips. Mrs. Hollister piloted a Yale 4 during 1912, but has set her mind on mounting one of the 7-8 h. Yale twins for the coming season. Mr. Hollister uses a Yale twin.

OLD COPIES OFFERED.

ONE of our subscribers has in his possession a series of old copies of MOTORCYCLE ILLUSTRATED, which is almost complete, beginning with the second issue in June, 1908. As he has no further use for these copies, he is willing to let a club or individual have them at the cost of express only. Anyone interested should write to this office.

RUTAN A BENEDICT.

PHAY RUTAN, agent for Indian and Flying Merkel machines in Elmira, N. Y., was married to Miss Mary Cromer, a school teacher of Elmira, a few weeks ago. M. Rutan was one of the organizers of the Elmira M. C.

SPEEDWAY FOR NEW YORK?

LATE reports are to the effect that the New York Motor Speedway Association has acquired a ten-year lease of the aviation field at Garden City, L. I., a tract of 650 acres, and will build an oval track two miles in circumference. The company is capitalized at $1,000,000. A decision has not been reached relative to the material for the track surface. The plans call for a start on the work on March 15, and for the erection of grandstands to seat from 75,000 to 100,000 spectators. Previous experience with such speedways has not shown the best results in motorcycle racing, but this has not prevented motorcyclists throughout the metropolitan district from manifesting considerable interest in the enterprise.

CANADA TO THE GULF.

FINAL arrangements have been made for the construction of the Meridian Winnipeg to Gulf motor road. This highway will have Winnipeg as its most northerly point and Galveston, Tex., as its southern termination. The distance between these points is about 2,000 miles. The road will be cut up into divisions, corresponding to the states through which it passes. There will be the Canadian, the North Dakota, the South Dakota, the Nebraska, Kansas, Oklahoma, North Texas and Gulf divisions.

REPORTS from the Pacific coast concerning Jake DeRosier are now more favorable. It is said that he will soon be able to walk.

WOMAN RIDER SEEKS OFFICE.

MISS IRENE KIMBERK is one of the candidates for secretary of the Hoquiam (Wash.) M. C. Other nominations are: President, F. A. Polson; vice-president, E. A. Truitt and Ray Kimberk; secretary, Miss Irene Kimberk and C. Lewis; treasurer, F. H. Whitcomb and Percy Hall; captain, Clem Fellzer and W. L. Schumate; first lieutenant, E. French and J. S. Devendorf, and second lieutenant, R. M. Seater and C. F. Smading.

BURNSIDE MAKES CHANGE.

OAKLAND, Cal.—Frank H. Burnside, of this city, who for some time has been engaged in the motorcycle business as a salesman, has accepted a position with the Fireman's Fund Insurance Company. Mr. Burnside will continue to interest himself in the motorcycle and its followers.

GOOD BOYS REWARDED.

ONE of Santa Claus' stops in Providence, R. I., was at the motorcycle headquarters of B. A. Swenson, where he distributed gold pieces and boxes of cigars to the Swenson employes. By way of reciprocating the staff presented Mr. Swenson with a large leather-upholstered chair.

NEW YORK TO DAYTON.

POWELL and Richard Schubert, of Dayton, Ohio, have just completed a motorcycle trip from New York to Dayton. They were on the road nearly a month owing to poor road conditions and bad weather.

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St Paul to Denver

by WALTER A TEUBER

MY preparations for the St. Paul to Denver motorcycle tour I am about to describe did not require much time, my main purchase being a game bag, which I used in place of a suitcase. I exchanged the cushion on my tandem seat for a good-sized horn, this being a very desirable fixture on such a trip. Before starting I had a good road map safely stowed away in my inside pocket, as one always finds a serviceable guide very welcome when exploring unknown territory, and the section I was about to travel was unknown to me.

I got under way about noon and reached Farmington, 25 miles distant, in less than an hour. The wind was blowing a gale and the road was rather sandy. At times it was difficult to make progress. A bunch of thistles became entangled in the spokes of my machine and broke the brackets which held the cyclometer, so that I had to take it off and put it in my toolbox. From Farmington I rode on to Faribault and then to Mankato. Nearing Waterville I got off the main road, and covered about ten extra miles. The road for about 20 miles was rough and full of ruts and chuckholes. Good speed could be made from Madison Lake, but the numerous sharp curves make caution necessary. I reached Mankato a little before 6 p. m., having covered 107 miles. I remained here overnight and being in a strange bed did not bother me as I slept soundly.

Striking Trans-Continental Route.

I got an early start the next morning but found deep sand and also encountered a few steep hills before reaching Amboy. After passing into Iowa I found good roads, of a black dirt formation. It is during this season (October) that the farmers haul their grain to town thus practically repairing the roads. The going soon became hilly and it was an up-and-down trip to Fort Dodge, where I arrived at 3 p. m. Having covered about 142 miles, I decided to stay over until morning, and in the meanwhile visit some relatives.

Before starting the next day I gave my machine a cleaning. When I did finally get started it was only to take the wrong road. This took me out through the hills, and they sure were hills; something like a scenic railway, only the course was not so smooth. At last I hit the right road and was soon in Grand Junction, on the transcontinental route, as well as on the Chicago and Northwestern railroad. From this point I went due west and had good roads for about 25 miles, when they again became hilly, and full of chuck-holes. Once more I got off the main road but did not go far wrong this time. Now and then the road would run along the railroad tracks and I had many an interesting race with the trains. In most cases I was the winner; where the road was at all good I could lose them.

Some Spectacular Spills.

Between Glidden and Westside the road had just been graded and it was very chucky and full of ruts, especially after the rain. I took my first spill near Carroll, by running off the grade and into the dug-out side of the road, which was very soft. My handlebars were pretty badly bent and as the throttle had been opened wide the ditch was practically cleaned out, my rear wheel throwing the water and mud about thirty feet into an adjoining cornfield. After a short rest I took to the saddle again, finding the roads for the most part hilly and rough. Nearing Woodbine I got my second spill, doing almost the same kind of a stunt as before, only this time I was a little further away from the machine when I landed. Fortunately I was not hurt in either case.

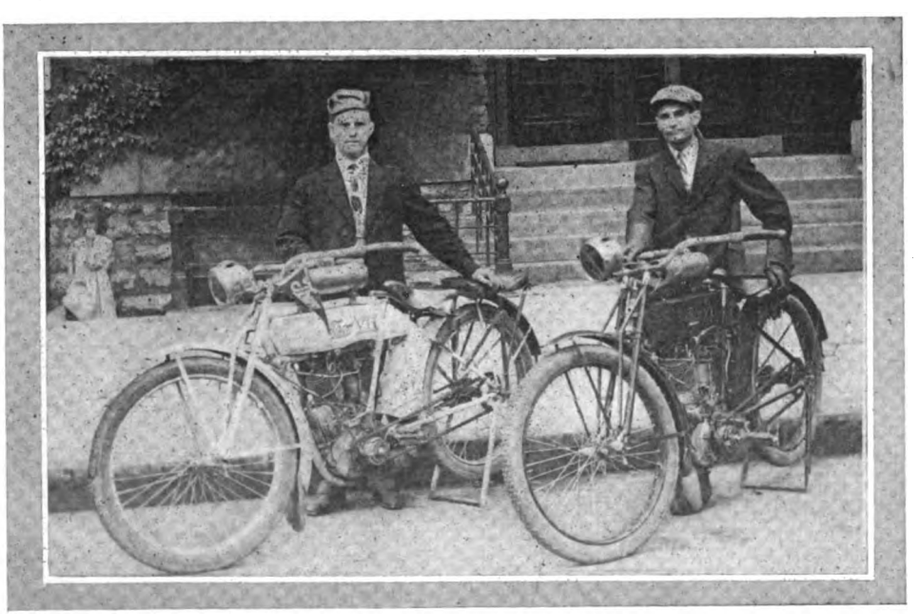
It was now getting dark and finally a light shower began to fall, accompanied by wind. I did not stop as the road was only a little sandy and the going was getting considerably better. It was dark when I reached Logan and the rain had ceased to fall so I decided to ride on ten miles to the next station. Although my lamp gave me a good view of the road ahead I did not particularly relish the idea of night riding on such roads and determined not to try it again. It was 7 p. m., when I reached Missouri Valley and I was ready to eat a hearty meal, having traveled 157 miles.

Pacing an Automobile Party.

In the morning I left for Omaha but had another spill before reaching Honey Creek, where I laid over about five hours. While here I met a motorcyclist from Lincoln, Neb., who had ridden up the night before on his Harley-Davidson. I arrived in Omaha at 3 p. m., and spent the rest of the afternoon visiting a number of old acquaintances and cleaning the Iowa mud off my wheels. During the afternoon I purchased an Eastman vest pocket Kodak which came in handy on a number of occasions. Up to this time I had covered 475 miles in 24 hours of actual riding.

I left Omaha heading an automobile party but had not gone far when I took another spill and broke off a pedal. I reached Fremont, where I had dinner, just at noon. Leaving here I decided to let the automobile take the lead as this party knew the road. About 39 miles out the automobile had a tire blowout and as I did not care to take the lead I helped them with what proved to be an hour job. When we started again I took the lead, and in less than ten miles had lost my friends. In another 40-mile run to Clark's I beat them by half an hour. This day's riding put 120 miles to my credit.

I left Clark's about 8 a. m. the next morning and had fairly good going. The towns were now quite far apart and the land looked deserted, with only an occasional farm house in the distance. It was 6.30 p. m. when I reached North Platte and I had covered 197 miles, thus doing better than on any other day of the trip. During the evening I met H. Sorenson and several other boys who had participated in the Short Grass Tour of last August.



C. Weller (at left) and W. A. Teuber on St. Paul to Denver Tour.

Meeting Some Congenial Spirits.

Leaving Platte the next morning I noticed the tracks of another motorcycle and so made inquiries at the next village. When I learned that a rider had left only half an hour ahead of me I put on extra speed and caught up with him after a four-mile run. We rode on together to Ogalalla, where I met Charles Strang and F. C. Kaylor. Both rode twin Indians and were headed for Brule. Here we met an M. M. rider, R. C. Kinsman, who was bound for Denver, so I immediately adopted him for my partner.

We rode to Julesburg and then along the

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north side of the Platte River, which has practically no banks, nothing but a sandy valley on each side. The traveling was good but darkness overtook us and as my partner had no lamp I let him get about thirty feet ahead of me and by keeping to the left he got the benefit of my light. In this fashion we rode about 16 miles over a strange road, which was really only a cow trail. The end of the 15 miles brought us to Crook, Colo., where we had some trouble in finding a night's lodging. The next morning we had good roads alongside the Union Pacific tracks and at one time had an 18-mile race with a passenger train.

We crossed the Platte River at Merino, at which place the sand was so fine one could hardly keep his machine up when standing alongside of it. The roads were very poor and before reaching Fort Morgan I broke the left side of my saddle frame. After visiting four blacksmith shops I finally got it welded. Just out of Fort Morgan we ran into a bad wind storm which was followed by a thunder shower. After an hour's wait in a farmhouse we again started out, but found the roads very sticky. For half a mile the gumbo clung to our wheels so thickly that we had to get off and walk, letting the machines push themselves. After that we were able to make fairly good time for 80 miles to the next station. This is a section of the country which has just recently been thrown open for homesteads and naturally it is not very thickly populated. We reached a farmhouse by sundown, where we obtained some supper and were allowed to sleep in the stable overnight.

Nearing Denver.

We started out early the next morning on the last lap of our trip. A cold breeze was coming from the snow-capped mountains, which were now well in sight. Every now and then we had to get off and run or swing our arms in order to keep warm. As the hotel in Bennett did not appear very inviting we decided to ride to Denver for breakfast. A wagon road to this city seemed as good as a boulevard compared to the cow trails which we had been riding for so long, and we reached Denver by 9.30 a. m.

I put my machine over the wash pit at the Williams Motor Company establishment and gave it a thorough cleaning and then scoured the engine. As the rest of my course lay through the mountains, which were full of snow, I decided to crate my machine and finish the trip by rail. During the entire trip on the motorcycle I covered 1,075 miles in 65 hours of actual riding. I used 20 gallons of gasoline and 14 quarts of oil. The average consumption of gasoline was one gallon to 54 miles.

AN AUSPICIOUS START.

THE newly-organized motorcycle club of Kalamazoo, Mich., already has forty members. At a recent meeting the following officers were elected: Fred Forgarty, president; Fern Spannagel, vice-president; Emmet Rooney, secretary, and Ray Newland, treasurer.

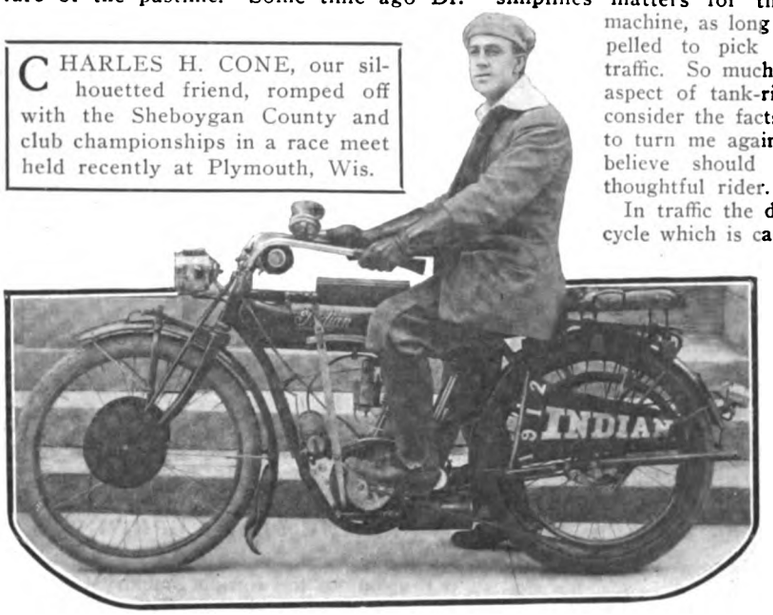
F. A. M. WORKERS.

OTTO E. ROBINSON, 510 K street, Hoquiam, and Aubrey Archer, 809 West Wishkah street, Aberdeen, are local appointees in Washington. C. N. Brown, of Hutchinson, is a local appointee in Kansas.

PATTERSON CONDEMNS TANK-RIDING

F. A. M. President Points Out That with View of Road Ahead Obstructed by Passenger on Tank a Motorcyclist is Handicapped

IN the letter which follows President Patterson, of the F. A. M., announces that his opinion has changed regarding the advisability of tank-riding on motorcycles and that he is now convinced the practice is one which entails unreasonable danger and exerts an unfavorable influence upon the future of the pastime. Some time ago Dr. Patterson argued that the wholesale campaign against tank-riding was hardly justifiable, as he considered a passenger quite as safe on the tank as on a tandem attachment, but his views have been changed materially, and with characteristic straightforwardness he makes known his new attitude. President Patterson's letter is substantially as follows:



CHARLES H. CONE, our silhouetted friend, romped off with the Sheboygan County and club championships in a race meet held recently at Plymouth, Wis.

About a month ago one of the F. A. M. directors wrote me that he wanted to change his vote on a certain matter, as he had found his original conclusions were wrong and he had the courage to say so. I am in a similar position just now with reference to the practice of tank-riding on motorcycles, a matter to which I have given much thought. Some time ago I noted without enthusiasm that the F. A. M. was decidedly against tank-riding, and knowing that there were two sides to the question I feared that the Federation might go too far in its condemnation. Now I am of the opinion that the tank-riding practice cannot be too vehemently condemned, for I have had some striking facts brought home to me. I still believe that the experienced rider who is traveling in the country can carry a passenger on the tank of his machine with safety, sometimes with greater safety than on a tandem seat, but wherever traffic has to be contended with the tank-riding habit is a dangerous one.

As far as a tandem attachment is concerned I have personal reasons for knowing that it requires a really muscular chap to handle a machine with a passenger on the rear, and that it is much easier to carry the extra weight over the tank. On a recent tour I observed a young rider get into serious trouble through improper balancing of the passenger's weight on the machine, while the tank-riders went along without mishap. I do not claim that tank-riding is either graceful or perfectly safe—even in country riding—but I do believe that it simplifies matters for the driver of the machine, as long as he is not compelled to pick his way through traffic. So much for the favorable aspect of tank-riding; now let us consider the facts that have served to turn me against it, facts that I believe should appeal to every thoughtful rider.

In traffic the driver of a motorcycle which is carrying a tank passenger is seriously handicapped through being unable to see ahead. He may look out to either side, but this entails more or less acrobatic work, and besides something may happen on the opposite side of the machine at the same instant. This arrangement is obviously not safe for the rider, his passenger or the pedestrian in the street. In a traffic emergency it is also difficult for the tank passenger to get clear of the machine very speedily, while a person may step off an ordinary tandem attachment with little trouble. Still the whole question simmers down to the fact that the driver cannot see the street ahead while carrying a tank passenger, and no matter how comfortable said passenger might be, the practice is one to be condemned. A rider may carry a passenger on his tank a dozen times without mishap, but sooner or later the fact that he is driving with little knowledge of the road ahead is going to get him into serious trouble. The rider with the tank habit always endangers the pedestrian as well as himself and his passenger, and the non-rider in the street must not be ignored if we are to obtain the best results for the motorcycle. I trust that all riders will give this matter calm consideration, and that tank-riding will give way to the extra seat, which at least always permits of a clear view from the driver's saddle.

REPAIRS COST A NICKEL.

CLYDE McMURTY, of Boulder, Col., has just completed a 1,765-mile motorcycle trip through Kansas, Oklahoma and Colorado, expending just five cents for repairs.

OFFICERS of the Poughkeepsie (N. Y.) M. C. for the 1913 season were recently elected as follows: Thomas Jordan, president; Charles Senk, vice-president; Eugene Davis, treasurer; Harry English, secretary, and H. J. Burger, press agent.

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MANUFACTURERS

ON GOODRICH FORCE.

LUCIUS B. LYMAN, widely known in trade circles, particularly in connection with tire lines, has just been appointed sales manager of the motorcycle and bicycle tire department of the B. F. Goodrich Company, at Akron, O., and from now on he will direct the sales of both the Goodrich and Diamond brands. Mr. Lyman is credited with

exceptional selling ability, and with a thorough knowledge of the policies and principles that go into a successful sales campaign. For several years he has been connected with the motorcycle and bicycle business, and has a large circle of friends among manufacturers and dealers throughout the country.

Mr. Lyman is especially enthusiastic over the new Diamond motorcycle tires. Referring to them in a recent statement he said:

"There are more good features in the new Diamond motorcycle and bicycle tires than I have believed it possible to embody in a tire. It is no exaggeration to say that the motorcyclist in 1913 can obtain in Diamond motorcycle tires the same material, construction and workmanship that go into the best automobile tires. We have simply adapted our automobile tire principles to the motorcycle in such a way that all the distinctive features of the large tires are placed at the disposal of the owner of a motor two-wheeler. Motorcyclists can now get the well-known Diamond Safety (Squeegee) tread in motorcycle tires; this is the tread that has given such remarkable results in automobile casings."

Mr. Lyman will be in charge of the motorcycle and bicycle tire departments at the Diamond Rubber Company's exhibits at the New York, Chicago and Boston Shows.

R. L. MILLER, of West Lafayette, Ind., in a 55-mile motorcycle ride over muddy roads with a tandem passenger, used only five pints of gasoline.

TO SHOW NEW ECLIPSE BRAKE.

PROBABLY the most interesting feature of the Eclipse Machine Company's exhibits at the national shows will be the new Eclipse motorcycle disc brake, which will be displayed in the regular model and in the type that is being supplied especially to the Harley-Davidson Motor Company. The brake is designed along the lines of the Eclipse free-engine clutch, and comprises a series of discs which afford a braking surface of over 100 cubic inches. In addition, the Eclipse company will show its new sidecar hub with knockout axle, which involves an entirely new principle in sidecar hub construction.

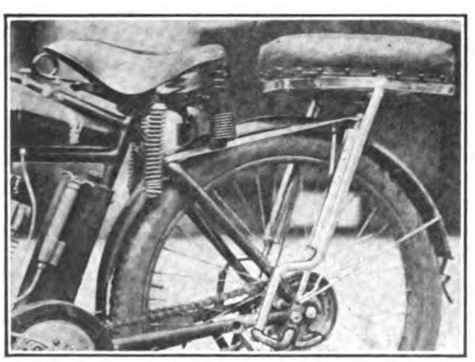
Besides these articles the Eclipse booth will show samples of the company's 1913 line of clutches, front motor hubs, head sets, and also a complete line of bicycle hubs and coaster brakes. The company announces that it has made quite a few minor changes in its clutch for the coming season.

RACINE PLANT GROWING.

A NEW core room has been added to the plant of the Racine Foundry Company, of Racine, Wis., this being the second core room added within the last year. The company is also erecting a new office building and a vault for the patterns. Heavy orders for cylinders are being received.

ADAMS TANDEM ATTACHMENT.

EASY riding accompanied by an extraordinary sense of comfort and security is a feature of the Adams tandem attachment, the product of the Henry T. Adams Co., 6823 South Chicago avenue, Chicago, Ill. The seat is fitted to a horizontal frame which is carried by two supports terminating in stirrups for the passenger's feet. To these supports are attached parallel tubes which play over struts attached to the rear frame at their lower ends and to braces to the rear stay crown at their upper ends. The movement of the seat and supports is controlled by springs on the struts on either side of the wheel and the passenger thus rides on springs, the stirrups moving up and



down with the seat. Luggage can be carried on this attachment by the removal of the seat-cushion.

EXCELLENT TIRE SERVICE.

WILLIAM H. GRAVES, of Chicago, reports 7,000 miles of service from the Pennsylvania Vacuum Cup tires with which his machine is fitted, and states that they show comparatively little wear. Mr. Graves uses his motorcycle in business, much of the time carrying a passenger. At the time the accompanying photograph was taken the tires had covered 4,000 miles, and it will be noted that the treads had hardly been affected.

NEW CORPORATION.

THE Stewart-Warner Speedometer Corporation was organized December 19 under the laws of the State of Virginia, with a capital stock of $1,000,000 7 per cent. cumulative preferred, redeemable at $110, preferred both as to dividends and assets, and $10,000,000 common.

The corporation has purchased the entire capital stock of the Stewart & Clark Manufacturing Company and of Warner Instrument Company, also all of the speedometer patents owned by the Warner Instrument Company and by A. P. Warner, C. H. Warner and J. K. Stewart, which comprise all of the United States patents of any value relating to magnetic speed indicators.

The officers, directors and sales forces of the Stewart and Warner companies will remain as at present, and the product of each factory will be marketed separately. White, Weld & Company, bankers, of New York and Chicago, underwrote the proposition and financed the purchase.

J. K. Stewart will be president of the new company, and C. B. Smith, secretary and treasurer. The board of directors will be composed of representatives of the selling interests and of the bankers.

R. A. Peters, a motorcyclist of Oakland, Cal., recently averaged 30 miles an hour on a 275-mile trip from Oakland.

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THE FEDERAL DISPLAY.

THE Federal Rubber Manufacturing Company, of Milwaukee, will exhibit at the New York Show a complete line of automobile and motorcycle casings and tubes, tire accessories and mechanical rubber goods. The chief features of this exhibit, however, will be the Federal "Rugged Tread" auto tire, which has made such a favorable impression on the motoring public generally. This tire is built on absolutely mathematical lines to prevent skidding; large studs built in parallel rows of three offer the same lines of resistance to skidding at any angle and in any possible position. This type of tread construction also gives the tire a wonderfully strong grip on pavement or road, thus utilizing every unit of engine power and giving maximum mileage under all conditions. The extra thick tread guarantees about twice the mileage of an ordinary tire. In construction, this tire has the advantage that comes from the carcass and tread being vulcanized at one operation, thus insuring perfect adhesion between carcass and tread, and eliminating the likelihood of separation of these parts in service, as often happens with tires of which the treads are vulcanized independently from the tire carcass and attached thereto by a second application of heat.

BUMILLER-REMELIN TANDEM.

A NEWLY-DESIGNED tandem attachment for use on the 1913 models of the Indian is being featured by the Bumiller-Remelin Company, distributors of the Hendee products in Cincinnati, Ohio. Owing to the fact that standard tandem attachments are not adaptable for fitting to the new Indian cradle spring frame, the Cincinnati firm lost no time in perfecting its improved passenger-carrying device, with the result that orders are already piling up.

The new attachment embodies several very important features, such as adjustable handlebars, extremely low saddle position (same height as the front saddle), and Standard rubber pedals, mounted on detachable brackets that are easily replaced at slight expense

if damage is sustained in a fall. The Bumiller-Remelin attachment lends additional strength to the cradle spring frame and, by way of reciprocating the spring frame, eliminates about 50 per cent. of the road shocks that would ordinarily be transmitted to the rear saddle. This is assisted by a horizontal instead of a vertical movement of the saddle, the former motion not being possible on ordinary rigid frames. The Bumiller-Remelin Company is finishing the new attachment in Indian red with nickel-plated fittings. This firm was also a pioneer in introducing practical electric lamps for motorcycle service, and has marketed a number of other specialties of merit for motorists.

Another important offering of this company is the Bu-Rem electric lighting outfit for motorcycles. It is made in two models. Model No. 1 consists of a nickel plated lamp, with 5-inch front, silver plated reflector, Tungsten bulb and metal battery case. Two Tungsten 3-cell batteries are supplied, guaranteed for 14 hours' continuous service. One battery is used at a time and the other is held in reserve. A more powerful outfit is supplied in Model No. 2 at the same price as No. 1, but only one battery is furnished with it.

A SIDECAR ENTHUSIAST.

J. H. HARPER, of Lima, O., is one of those enthusiasts who believe in making the most of a sidecar outfit on every trip (note photograph) and of late he has established a reputation for getting unusually heavy loads over the roads on long runs with minimum trouble. The Reading-Standard machine which is depended upon to propel the outfit is giving entirely satisfactory service.

SIMPLEX OIL GAUGE.

FOR motorcycles not ordinarily fitted with an oil gauge in the crankcase the Simplex sight gauge, manufactured by the Buck Sales Company, of 211 No. Twelfth street, St. Louis, Mo., is a fitment of such value that few riders who give it consideration will be without it. The Buck device is 2 inches in diameter and only ⅜ of an inch thick. It is handsomely nickel-plated and screws firmly to the crankcase on a level with the bottom of the case. Instead of cutting a hole the full size of the gauge in the crankcase and using the flywheel as a background against which to view the oil level, only two small holes are used. One admits the oil at the bottom and the other is an air vent. As a result the oil level shows clearly against the white aluminum surface of the crankcase.

In drilling for the screws that hold the gauge it is advisable to use a small drill with a guard and penetrate only ¼ of an inch into the crankcase. As the steel machine screws are placed in position they make their own thread and a tight job is the result.

MOTORCYCLE TIRES INCLUDED.

ANNOUNCEMENT is made by the Fisk Rubber Company, of Chicopee Falls, Mass., that motorcycle tires will be included in its New York Show exhibit. The company will display its Premier type of Bailey and corrugated treads and its heavy motor type in two treads. Endless and butt-end pure gum inner tubes will also be featured in the exhibit.

HALCO LEGGING LINE.

AN unusually attractive line of leather and canvas leggings for motorcyclists is offered by the Hagerstown Legging Company, of Hagerstown, Md., and described in a neat booklet published by this firm. The Napoleon, Toreador, spring puttee and the stud-loop leg coverings are among the thirty-one styles illustrated in the regular catalog. A special contract held by this company with W. D. Byron & Sons, of Williamsport, Md., the largest manufacturers of oak-tanned leather used for this purpose, enables them to produce leggings at an unusually low cost. In ordering leggings produced by the Hagerstown company, the buyer should ask for the Halco brand. The Halco list includes button, lace, strap and buckle fastened leggings in both knee and thigh sizes. They are manufactured with russet, black grain imitation pig skin, pig skin, imported pig skin, black grain and chocolate smooth grain leathers.

In order to meet the rapidly growing demand for automobile and motorcycle leggings the company is now producing a special line in addition to its regular stock. These leggings are also sold under the trade name of Halco brand and embrace both knee and thigh sizes. A special gusset patch at the under part of the knee is used on the latter to permit of free use of the limbs and ease in walking.

CONTINENTAL GRIPS.

WOVEN steel reinforced grips are the latest products of the Continental Rubber Works, of Erie, Pa. Considerable trouble has been experienced in the past with motorcycle grips breaking, due to the fact that the bar has cut through the rubber. With the new steel reinforcement it is claimed that the grips are absolutely indestructible. This grip, as will be noted, has a woven shell in the center or relief part, thus strengthening it at its weakest point. This steel reinforcement is pliable and does not in any way detract from the resiliency of the grip. They are made in

C. R. Jones, of Scranton, Pa., Now Traveling in Ohio for the Reading-Standard Company.

the regular motorcycle and corrugated types. Patents on the new product are pending and no other firm will be licensed to use this principle in manufacturing. Several manufacturers have closed contracts with the Continental company for large quantities of these grips.

MEMBERS of the Wilmington (Del.) M. C. recently made a Sunday run to Glen Loch, Pa.

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ON the TRADE FIRING LINE

A TIP FOR DEALERS.

OF late several manufacturers of sidecars have been moved to protest against the tactics of some dealers who place three, four and even five men in one of the passenger attachments by way of demonstrating its stability. A recent letter from the Majestic Manufacturing Company is to the point. This company calls attention to the fact that its sidecars are built with an ample margin of strength, and that they have met all reasonable tests—and many that were unreasonable—but it is argued that there is a limit to the resistance of any material and any type of construction, and the company suggests that dealers keep this in mind. The Majestic company has arranged to build the chassis of Majestic sidecars of even heavier tubing for 1913 to offset the unfair strains to which they are often subjected, but the tip for dealers is still worthy of consideration.

"GRIFF" HOME AGAIN.

A. E. GRIFFITH, the New Departure Manufacturing Company's stellar salesman, has returned home for a brief rest after seven months of remarkable success on the road. Incidentally he is framing a batch of good resolutions for 1913 anent new methods of boosting the New Departure line. On his long trip the popular business-builder went as far south as Texas and westward to California. "Everything looks good to me for 1913," said Griff on his return.

COAST NEEDS ATTENTION.

H. C. BUSH, of the Eclipse Machine Company, Elmira, N. Y., who spends most of his time calling on the western trade, and who has just put in a few weeks in Los Angeles, is of the opinion that eastern manufacturers should give more attention to the coast trade.

A WEEK'S LIST.

FLYING MERKEL agencies appointed during the week ending December 28, are reported by the Miami company as follows: C. W. Nicodemus, Newton, Kan.; A. P. Naylor, Salina, Kan.; W. V. Hollingsworth Company, Zanesville, O.; James Mayo, Reading, Pa.; Motorcycle Sales Company, Scranton, Pa.; H. L. Gregory, Wilkes Barre, Pa.; G. E. Waters Hardware Company, Junction City, Kan.; Georgie Auto Exchange, Montgomery, Ala.; W. A. Duff, Pontiac, Ill., and Charles B. Hill, Warren, Pa.

P. E. M. AGENCY.

A CONTRACT has been closed with the Southern California Motorcycle Company, of 1046 South Main street, Los Angeles, to handle the P. E. M. in southern California. The company is comparatively new and is composed of W. G. Hamilton, of Chicago; L. C. Freeman, a Kansas booster, and R. Starky from the Buckeye state.

THE THOR IN CHICAGO.

THOR agencies in Chicago are reported as follows: Leonard & Schuyler, Robey street, central district; Staubner, Lichtner & Co., Humboldt Park, northwestern section; W. Barker, 1119 East Fifty-fifth street, South Side; Wellington Kirk, Evanston; Addison Cycle Company, 5403 Clark avenue, northeastern district; P. Lorwnzon, South Chicago.

HOLLAND'S TRIP.

ACCORDING to a statement from Lincoln Holland, Jr., who has just completed a two-months' trip through New England, New York and New Jersey, in the interest of the Ives Motorcycle Corporation, of Owego, N. Y., everything in this district is ready for the 1913 boom. Mr. Holland covered the territory on his Monarch 5.

Guy Campbell, of Waterloo, Iowa, Demonstrating the Pulling Power of the 1913 Indian for Which He Is Agent.

1913 POPE AGENCIES.

FOLLOWING is a list of some of the 1913 Pope agencies: George S. Uniss, Brooklyn, N. Y.; G. H. Poppenburg, Buffalo, N. Y.; E. W. Fisher, Rochester, N. Y.; Edward Berghoff, Asbury, N. J.; Ward Brothers, Camden, N. J.; William E. Wandersee, Detroit, Mich.; A. W. Erpenstein, Saginaw, Mich.; Vincent Brothers, Cleveland, O.; Flory Brothers, Lancaster, Pa.; Auto Motorcycle Company, Philadelphia, Pa.; W. W. Bennett, Pittsburgh, Pa.; Pope Motor & Cycle Company, Oklahoma, City, Okla.; J. H. Tubman, Lincoln, Neb.; O. C. Allenbach, Eldorado, Kan.; New England Motorcycle Company, Boston, Mass.; Eastern Cycle Company, Hartford, Conn.; J. N. Boyce, New Haven, Conn.; C. W. Ellison and Auto Tire & Repair Company, Bridgeport, Conn.

Later additions to the list are: H. W. Vandever Company, Wilmington, Del.; H. W. Higham, Jr., Washington, D. C.; H. E. Johnson, Daytona, Fla.; Harper & Powers, Jacksonville, Fla.; Dilts & Jeffiffe, Miami, Fla.; Island City Electric Work & Supply Company, Key West, Fla.; W. H. C. Dudley, Americus, Ga.; L. S. Crane, Atlanta, Ga.; W. H. Holmes, Augusta, Ga., and Ellis Bicycle Company, Wichita, Kansas.

H.-D. IN TORONTO.

STEVE LICENCE, of 763 Yonge street, formerly agent for the Harley-Davidson in Toronto, has been succeeded by the Planet Bicycle Company, of 96 Queen street. Samuel Bulley, manager of the latter firm is well known in bicycle and motorcycle circles in Toronto.

SHOWING NEW HENDERSON.

BY way of announcing the arrival of the 1913 Henderson, the New York and Brooklyn Auto Supply Company, of 1717 Broadway, New York, is sending out an attractively printed card, inviting an inspection of the new model.

A DAYTON DISTRIBUTOR.

THE Davis Sewing Machine Company announces that arrangements have been made with the Dayton Cycle Company, of 840 Union avenue, North, Portland, Ore., to distribute Dayton motorcycles in the State of Oregon and in Vancouver, Wash.

NEW DESIGN PROMISED.

A NEW type of motorcycle, which is being built by the Mooney-Hoye Company, of 512 Eleventh street, Milwaukee, Wis., is near completion. Mooney has been connected with the Harley-Davidson Co., and has had considerable experience in general motorcycle production.

GEORGE C. WILDERMAN, of 111 Front street, Marietta, O., has taken the agency for the Dayton and Yale lines.

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EXHIBITORS AT CHICAGO

BELOW is given a list that tells its own story of the enthusiasm with which manufacturers have rallied to the support of the Independent Motorcycle Show in Chicago. Embracing as it does all the representative firms, it is tangible proof of the contention made a year ago by President Coffman, of the Motorcycle Manufacturers' Association, and other trade boosters, that the motorcycle is well able to hold its following, regardless of other motoring interests. Although the Show Committee was kept on the anxious seat for a time owing to the unexpected demand for booths and for space extensions, all applicants have now been dealt with satisfactorily and the exhibitors are in a position to make the most of their display opportunities. An unusually fetching decorative scheme is being worked out.

The official list of exhibitors is given as follows:

Space No. 1, Pope Mfg. Co., Hartford, Conn.; space No. 2, Ives Motorcycle Corporation, Owego, N. Y.; space No. 3, Chicago Cycle Supply Co., Chicago, Ill.; space No. 4, Bosch Magneto Co., New York City; space No. 5, H & F. Mesinger Mfg. Co., New York City; space No. 6, Excelsior General Supplies Co., Chicago, Ill.; space No. 7, Mead Cycle Co., Chicago, Ill.; space No. 8, Purdy Bros., Chicago, Ill.; space No. 9, Van Cleef Bros., Chicago, Ill.; space No. 10, Angsten Koch Co., Chicago, Ill.; space No. 11, Eclipse Machine Co., Elmira, N. Y.; space No. 12, Bicycling World Co., New York City; Space No. 14, Fox Mfg. Co., Seattle, Wash.; space No. 15, North Chicago Machine Co., Chicago, Ill.; space No. 16, Greyhound Motor Co., Buffalo, N. Y.; space No. 17, Beckley Ralston Co., Chicago, Ill.; space No. 18, Allied Motors Corporation, Chicago, Ill.; space No. 19, Excelsior Motor, Mfg. & Supply Co., Chicago, Ill.; space No. 20, R. S. Crawford, Saginaw, Mich.; space No. 21, Aurora Automatic Machinery Co., Chicago, Ill.; space No. 22, Sarco Engineering Co., New York City; space No. 23, Motor Cycling, Chicago, Ill.; space No. 24, Fowler Carnes Co., Aurora, Ill.; space No. 25, Wheeler & Schebler, Indianapolis, Ind.; space No. 26, Weed Chain Tire Grip Co., New York City; space No. 27, Atlas Specialty Mfg. Co. Chicago, Ill.; space No. 28, National Cycle Accessories Co., Aurora, Ill.; space No. 29, Graton & Knight Mfg. Co., Worcester, Mass.; space No. 30, Majestic Mfg. Co., Worcester, Mass.; space No. 31, Reading Standard Co., Reading, Pa.; space No. 32, Harley-Davidson Motor Co., Milwaukee, Wis.; space No. 33, Hendee Mfg. Co., Springfield, Mass.; space No. 34, Miami Cycle & Mfg. Co., Middletown, Ohio; space No. 35, Kokomo Rubber Co., Kokomo, Ind.; space No. 36, Aermore Mfg. Co., Chicago, Ill.; space No. 37, Victor Auto Parts Co., Cincinnati, Ohio; space No. 38, Standard Welding Co., Cleveland, Ohio; space No. 39, Corbin Screw Corporation, New Britain, Conn.; space No. 40, Hawthorne Mfg. Co., Bridgeport, Conn.; space No. 41, Standard Thermometer Co., Boston, Mass.; space No. 42, H. T. Roberts, Chicago, Ill.; space No. 43, Schickel Motor Co., Stamford, Conn.; space No. 44, Minneapolis Motor Co., Minneapolis, Minn.; space No. 45, Pierce Cycle Co., Buffalo, N. Y.; space No. 46, American Motor Co., Brockton, Mass.; space No. 47, Henderson Motorcycle Co., Detroit, Mich.; space No. 48, Emblem Mfg. Co., Angola, N. Y.; space No. 49, Consolidated Mfg. Co., Toledo, Ohio; space No. 50, Waverley Mfg. Co., Jefferson, Wis.; space No. 51, MOTORCYCLE ILLUSTRATED, New York City; space No. 52, Excelsior Cycle Co., Chicago, Ill.; space No. 53, Barco Brass & Joint Co., Chicago, Ill.; space No. 54, Herz & Co., New York City; space No. 55, Badger Brass Mfg. Co., Kenosha, Wis.; space No. 56, Great Western Mfg. Co., Laporte, Ind.; space No. 57, Iver Johnson's Arms & Cycle Co., Fitchburg, Mass.; space No. 58, Baxter Side Car Co., Cambridge, Mass.; space No. 59, Chicago Belting Co., Chicago, Ill.; space No. 60, New Departure Mfg. Co., Bristol, Conn.; space No. 61, Splitdorf Electrical Co., Newark, N. J.; space No. 62, Black Hawk Motor Co., Rock Island, Ill.; space No. 63, F. W. Spacke Machine Co., Indianapolis, Ind.

HAGSTROM LEADERS.

TWO of the leading 1913 offerings of the Hagstrom Brothers Mfg. Co. are the Hagstrom suction priming cup and auxiliary cold-weather carbureter, and "Zim" pulley lag. The latter article is the conception of "Zim," general manager of the firm, after whom it is named. "Zim" lagging comes in 60-inch rolls and is easily applied. It requires no screws, as it vulcanizes itself. It is made of the strongest Sea Island fabric obtainable, and is not only thoroughly impregnated with friction rubber, but also has a heavy coating of pure raw rubber cement. This adheres firmly to the metal pulley and becomes vulcanized from the ordinary heat produced by the pulley in motion.

The suction priming cup is a very simple device, easily attached and insuring an instant start in the coldest weather. It vaporizes the fuel and differs from priming plugs and petcocks in that it does not damage the cylinder by introducing the fuel in its liquid form.

AMONG THE MISSING.

WALTER H. EMES, 564 Eddy street, San Francisco, Cal., F. A. M. member 15702, reports the loss of his twin Indian. The motor number is 70B210. The machine was equipped with Prest-O-Lite tank, tandem, skirtguard and watch. The regular F. A. M. reward of $25 will be given for its recovery.

NATHAN SPECIALTIES.

THE ubiquitous Mr. Nathan, as usual, comes across with an innovation distinctly in keeping with the times. His latest is a sidecar storm apron, which is of great utility, and will be sold at a comparatively low price.

This storm apron is made of waterproof cloth and designed so as to cover not only the sidecar passenger, but the top and lower part of the sidecar itself, so that no moisture can penetrate. The Nathan sidecar storm apron meets a demand which has long been felt by the unfortunate sidecar riders who have been drenched owing to the absence of a suitable covering.

Another new Nathan product is a cushion tandem seat. This seat is modeled along automobile cushion lines and bids fair to become very popular with those riders who have heretofore found their rear seat attachments more or less uncomfortable. Strongly constructed of steel, hair-padded and fitted with tremendously strong car spiral springs and an air adjustment for the weight of the rider, the Nathan tandem seat is an exceedingly comfortable little device.

CORRECTIONS.

IN a recent issue, in our advertising columns, the Pope Model M was announced as a 4 horsepower machine, when it should have been credited with 5 horsepower. This was due to a mistake in advertising copy, and in our last issue the proper classification was made. The Model K was then also announced as a 5 horsepower motorcycle inadvertently, when it should have read "Model K—4 h. p. belt drive." The corrected reading is: Model M, 5 horsepower, chain-drive machine, listing at $215; Model K, 4 horsepower, belt-drive machine, listing at $200.

GOOD NEWS FROM TEXAS.

STATISTICS gathered by the county clerk of Harris county, Tex., show that more than $20,000 was expended for motorcycles in the past year. Houston is the principal city in this county. Extensive road improvements throughout this section of the country have encouraged the use of the two-wheeler.

HELPING METER READERS.

AN order from the Columbus Railway & Light Company for two motorcycles to be used by their meter readers has been filled by the Barr Motorcycle Company.

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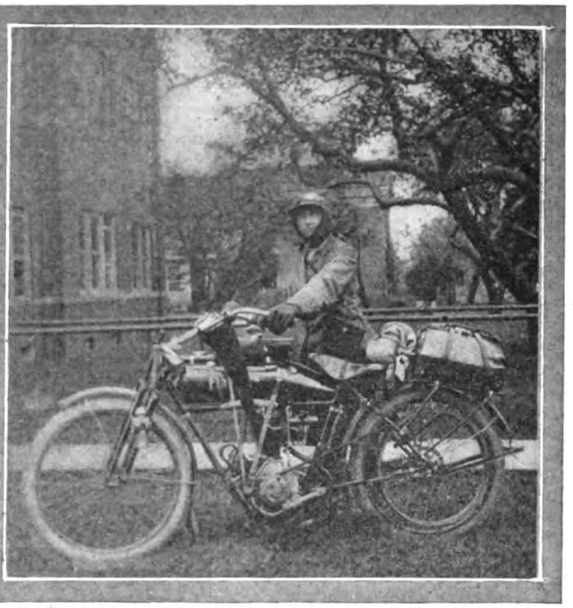
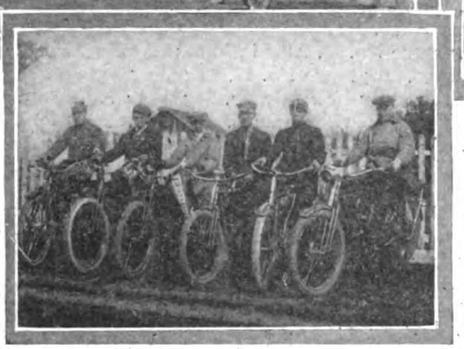




HERE AND THERE WITH THE PHOTOGRAPHERS—GLIMPSES INTO BOTH PLEASURE AND BUSINESS POSSIBILITIES OF THE MOTORCYCLE.

IN the upper left hand corner is shown a section of one of Boston's beautiful boulevards. In and about Boston the poplar trees to be seen on each side of the road add much to the scenic beauty of the landscape. In the foreground of the picture is shown Edson Miner, with his son occupying a tandem seat. Mr. Miner is connected with the police department of the New England city. In the rear are three riders who are evidently enjoying the boulevard to the utmost.

Miss "Cy" Woodman, with her Flanders machine, is shown at the right. This photo was forwarded from Des Moines, where it was taken after Miss Woodman had recovered from a fall. She has not given up the idea of reaching Frisco and is making steady progress westward.

Below the Boston scene is a line-up of Hudson County (N. J.) Reading-Standard riders. The picture was forwarded by Andrew Lardino, agent for the R-S in Jersey City, N. J. It was taken after a recent run over Jersey roads. Lardino's shop is situated in the center of the Jersey City motor district and is an up-to-date establishment.

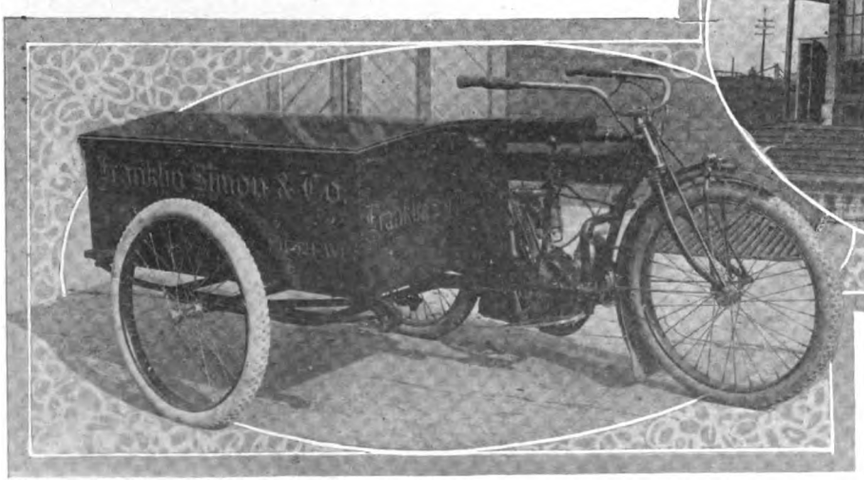
In the left-hand corner at the bottom of the page is an illustration of the sidecar delivery van used by Franklin Simon & Company, of New York City. The car is driven by an Indian single. The big clothing firm has found the motorcycle to be an economical means of delivery, in addition to being speedy in handling suburban orders.

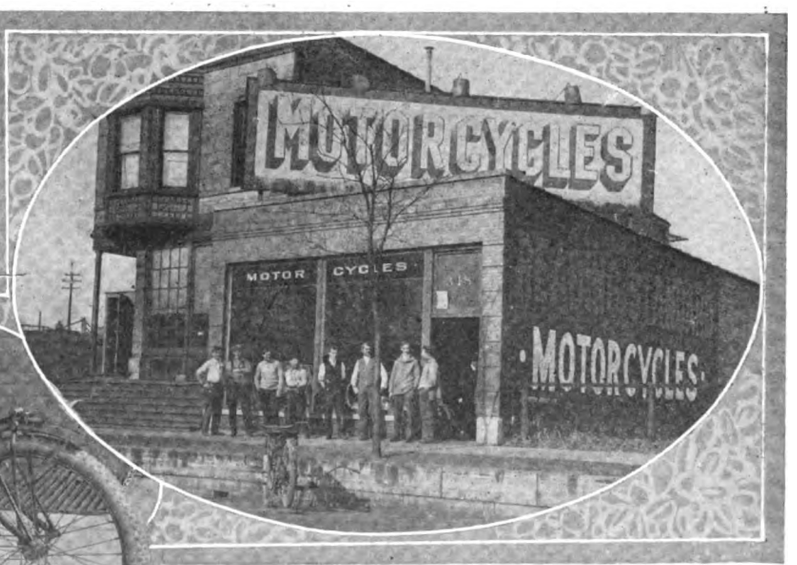
A picture of the shop of the recently established Reading Standard Sales Company of Chicago is shown in the lower right-hand corner. This firm has been doing a remarkable business since succeeding the Angstren-Koch Company, in handling the retail sales. A good-sized squad of repair men is kept busy.

MANHATTAN, Kan., January 3.—The motorcycle was one of the prominent features on the program at the State Institute of Gas Engineers, held at the Mechanics' building of the Kansas State Agricultural College here today. A State Farmers' Institute was in progress at the same time, and a number of farmers attended the meeting to hear the talk on motorcycles.

These institutes are held under the auspices of the college, and the college authorities mould the program. As originally planned, the motorcycle was given no part, but the dean who had charge of the arrangements for the Gas Engine Men's Institute is progressive, and has up-to-date ideas, so he realized that there would be a serious vacancy if the two-wheel power-driven machine was omitted.

Elmer Kittell, the Yale agent in Manhattan is a graduate of the college, and a "live wire" in motorcycle circles, being president of the Motorcycle Club as well as an active figure in a business way. He was of great assistance to the college authorities, and procured Advertising Manager Bailey from the Yale factory, at Toledo, as speaker on the subject of motorcycles.





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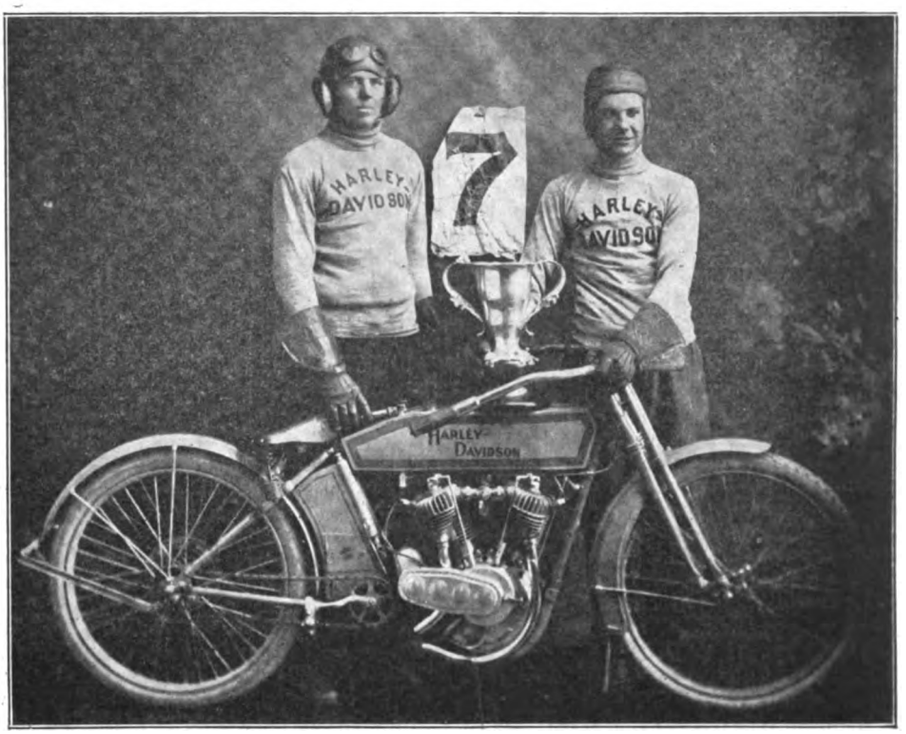
A New World's Record

Ray Watkins and Ben Torres ride 346 miles in 7 hours on a dirt track with an 8 horse-power Harley-Davidson

AT San Jose, Cal., Dec. 8th, the regular stock eight horse-power Harley-Davidson established a new world's record by covering 346 miles in 7 hours.

The winning Harley-Davidson team finished 17 miles ahead of their nearest competitor and in addition to winning the first prize the Harley-Davidson also made the fastest mile in the contest.

During the whole run not a single repair, replacement or even adjustment was made to the Harley-Davidson and not a stop of any nature whatsoever was made except for change of riders and to take on gasoline and oil.



Ray Watkins Ben Torres

AS manufacturers we do not support racing and do not build racing machines. This new record came as a complete surprise to us. The contest was conducted entirely without our knowledge and the first we heard of it was a newspaper clipping sent in to the factory.

We have repeatedly asserted that the eight horse Harley-Davidson was the fastest stock machine made, barring none. This has been proved time and again in contests where private owners competed with their own machines. This San Jose victory furnishes more actual proof that the Harley-Davidson will stand up under the most trying conditions possible and at a maintained high speed. The Harley-Davidson averaged 49.43 miles per hour for the entire 7 hours, including all stops for gas and oil.

The San Jose contest was conducted under F. A. M. sanction.

Harley-Davidson Motor Company

Producers of High-Grade Motorcycles for Eleven Years

341 C Street **Milwaukee, Wisconsin**

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PARCELS POST OUTFITS

Five Motorcycle Vans Have Been Purchased for City of Cleveland and Ten Others May Be Placed in Service.

CLEVELAND, O.—Postmaster Floyd recently took steps to lease five motorcycle van outfits for use in the delivery of parcel post matter, and it is stated that ten more will be contracted for at an early date. The first batch of machines is to be given thorough tests, in order that an official report may be made as to their advantages for parcels post service.

Included in the first order is an Indian with forecar locked box, a Cycomo sidecar with P. E. M. machine, and a Minneapolis Big Five two-speed with van equipment. At present the officials are somewhat at sea as to the best transportation system to be put into effect, and the way will be paved for big things in the motorcycle line if the test machines meet the requirements as it is expected they will. It is the intention to make two parcels deliveries daily to all parts of the city.

TO INCREASE CAPITAL.

CHICAGO.—The North Chicago Machine Company is planning to increase its capital stock from $25,000 to $100,000. This is the company of which E. S. Palmbla is the general manager and the inventor whose contrivances have been pushed by the company.

The new article which he recently produced which called for the increase of capital stock in order to push its manufacture is the silent sleeve valve phantom motor.

Mr. Palmbla and others in the company believe the future of the company is very promising; therefore they decided to increase the capital stock in order to increase their output.

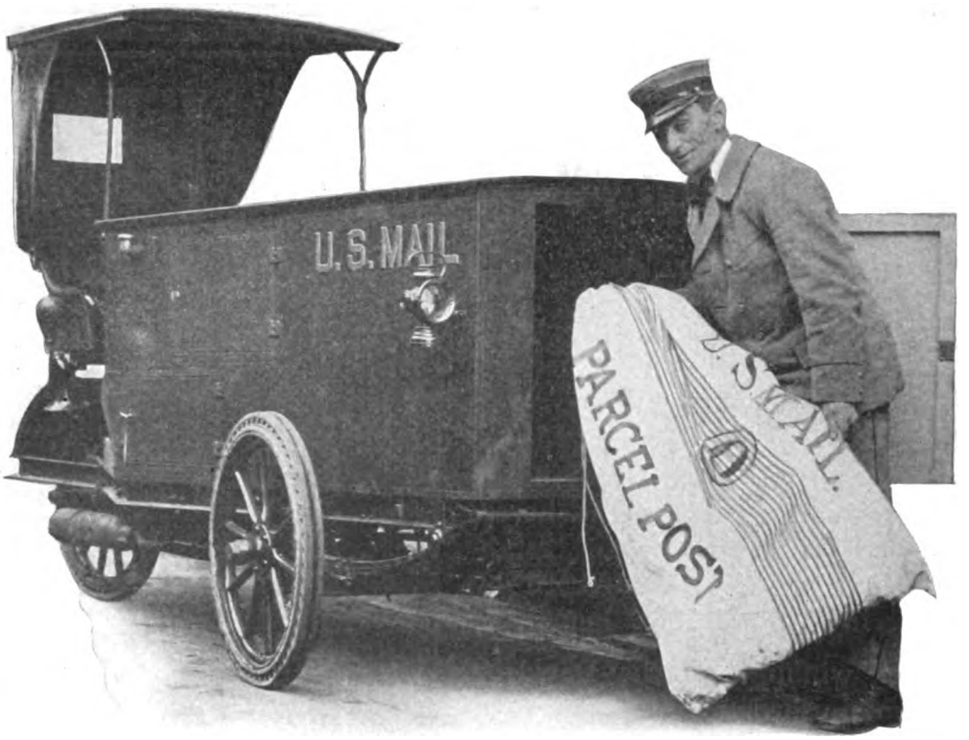
1913 MOSLER SPECIALTIES.

A NEW departure in the ignition specialties field is the manufacture of special models of Spit-Fire spark plugs for a wide range of motors, one model being adapted particularly to each make of motor, and bearing a tag stating this. Until after the New York show, A. R. Mosler & Company will give a handsome leather spark plug case with snap fastening, holding six plugs, with each order of six Spit-Fire plugs. This case affords the best protection for the plugs and is invaluable for a long tour, for example. The third edition of the "Spark Plug Bulletin," a Mosler publication, is ready for distribution and contains valuable information in this line. It will be sent free on request from the company's address, P. O. Box M, Mt. Vernon, N. Y.

THE SIDECAR TO STAY.

BRITISH riders are asking whether the cyclecar has sounded the deathknell of the sidecar? I doubt it. The best cyclecar will be more costly and less sporting than a motorbicycle to the end of time, and for solo work the motorbicycle will always have the scoop. Few motorcyclists can afford to buy a motorbicycle and a cycle car. Every owner who does much solo work will want a motorcycle; and he will find the sidecar more attractive for his occasional jaunts with the best girl than the purchase of a costly cyclecar, which must rust in its stable for six months of each year.

Moreover, the modern motorcycle, now that variable gears are standardized and engines are powerful, can pull a heavy sidecar so efficiently, that sidecar sales are likely to beat the record in 1913. The cyclecar may oust the sidecar in a few years; when motorcycle design becomes more stereotyped, we shall treat these jiggers as we now treat our pushbikes, and buy them for keeps, conquering the habit of a new mount every spring. In the second year we shall have the price of a new mount to play with, and the average stable may then run to a bike and a cyclecar; for the present a motorcycle and sidecar will be preferred, in order that we may get a new motorcycle next spring.



New Vehicle Closely Verging on Cyclecar Type That is Being Used for Parcels Post Collections in tests now being conducted in New York City.

Two More Cyclecars.

FROM a huge waiting list I select two more cyclecar designs which are characteristic of British industry. The New Hudson is a 5-cwt. vehicle, illustrating the future development of the lighter and cheaper type. In appearance it is a small car in miniature, selling at $450. It has an air-cooled engine of 85 mm. x 130 mm. mounted in front under a dummy bonnet, with rounded wiremash cooling panel. The first drive is by belt over pulleys of 6 in. and 12 in., respectively. On the countershaft is situated a swollen edition of the popular three-speed epicyclic hubs (Armstrong make), from which the final drive goes by roller chain, with 50 per cent. sprocket reduction, to a differential axle. A neat decompressor facilitates engine starting, and the carbureter is of the single lever type.

The brough is of weightier construction, and shows what can be effected by a small maker who buys many of his parts. It has an 8 h. air-cooled engine, of 85 mm. x 88 mm., remarkable for a special valvetiming gear which gives slightly better synchronization than the normal V types. The clutch is on the engine shaft, and the drive is by chain to a sliding three-speed gearbox, and thence by a second chain to a solid rear axle on which one wheel runs free and idle. The cost of this vehicle is $500, and the total weight is about 6½ cwt.

New Carbureters.

GENIUS is always simple, and the air device fitted to the 1913 Brown and Barlow carbureters certainly seems inspired. A prolonged air intake tube houses two springs, one of which is tapered, and terminates in a small metal choke tube; the other has coils of even diameter throughout, and serves as a lining for the air intake pipe. When the engine is running slowly all extra air is inhaled through the tiny choke tube. As soon as the engine speed rises, the parallel coil spring is sucked in towards the engine, the suction being effective on the taper spring, the light choke tube and the parallel spring. This tensions out the coils of the taper spring, and additional air enters between the coils of the taper. It functions most admirably.

The other details of the carbureters deserve no special attention, merely embodying such familiar principles as the horizontal air column, and the needle-controlled variable jet; the sole other feature of interest is that the taper needle controlling the variable jet is fixed to the throttle piston. A greater variety of settings could hardly be obtainable with a single lever, for one lever controls the throttle, varies the jet and induces the automatic springs to function. The Amac has rather a unique jet chamber. Below the spray proper there is a small gasoline reservoir, fed through a small hole, which predetermines the maximum flow of spirit. The spray holes proper are many in number, and of exceedingly fine bore; they are drilled through the roof of the gasoline reservoir, and their number and fineness causes the gasoline to be very completely atomized. No carbureters insures a more homogeneous mixture. Both these carbureters are procurable with accelerator pedals for cyclecar use.—BRITISHER.

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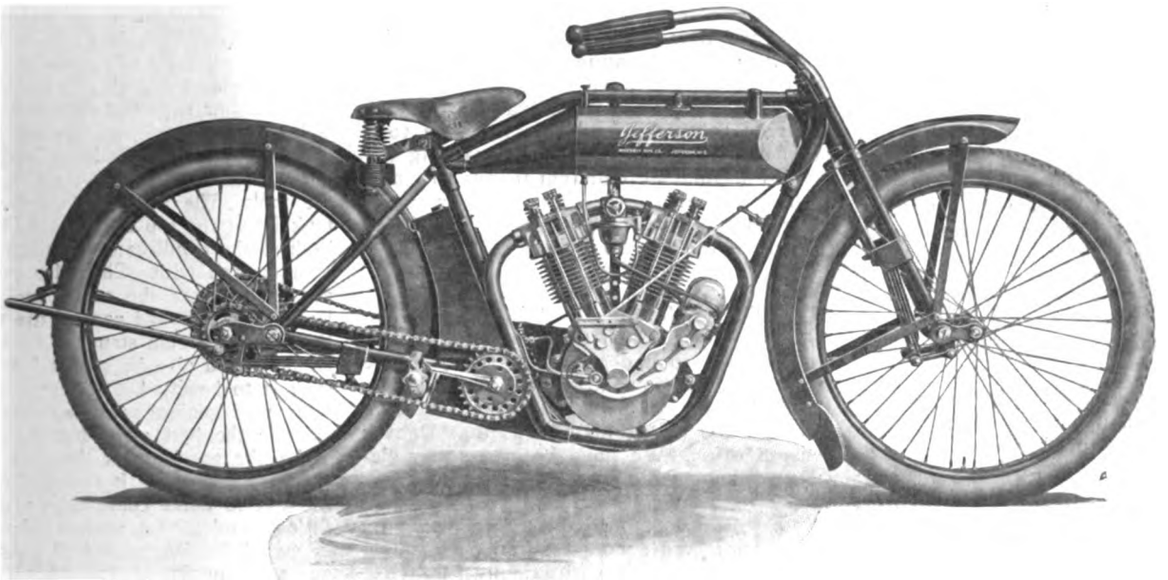

You *must* reckon with the 1913 Jefferson

The 1913 JEFFERSON will not permit itself to be ignored. By sheer force of merit and quality it will as consistently come to the front in 1913 as it did in 1912, under the name of P. E. M.

Into the JEFFERSON has been incorporated the experience of veteran engineers, masters in their line. In perfecting the JEFFERSON, they have always kept before them these four cardinal points—SPEED—COMFORT—POWER—DURABILITY.

That the JEFFERSON has speed has been conclusively demonstrated during the past year. Under the name of P. E. M., the JEFFERSON IV won 37 races out of 47 which it entered and came second in 10. The JEFFERSON won **six races against twins.**

We hold the original patents for perfecting the cradle frame with leaf springs. For smooth, vibrationless, "floating" riding comfort, the JEFFERSON automobile spring frame is absolutely perfect.

For quick acceleration, for tremendous power, for smooth, vibrationless clean-cut action, the Waverley Engine is easily the peer of motorcycle motors. Bosch Armored Magneto, Mechanical Valves, large ball-bearing parts and perfect balancing complete a motor that **cannot help but be perfect in service.**

Aside from the automobile leaf springs, which not only make comfort a striking feature in the JEFFERSON, but add immeasurably to the strength of the JEFFERSON'S frame, the construction of the JEFFERSON—re-enforced frame parts, no cast steel tanks, etc., makes it proof against wear.

Dealers—In the preceding paragraphs we have briefly outlined a few of the JEFFERSON'S strongest points. We have made no attempts to give vent to the tremendous enthusiasm, the almost uncontrollable satisfaction we feel in the knowledge that we have a masterpiece of motorcycle manufacture. We prefer to state plain facts, and rely upon your discrimination and knowledge to impel **you** to make the next move.

Our catalog is ready for you

WAVERLEY MFG. CO. - Waverley Place, Jefferson, Wis.

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OPINIONS OF READERS ON TIMELY TOPICS

ON TWO-CYCLE MOTORS.

AN unusually interesting letter dealing with two-cycle motors has been received from William E. Slater, of San Francisco, in which the writer takes exception to certain statements of contributors whose letters have appeared recently in these columns. Mr. Slater's letter indicates such practical consideration of the question at issue that it is printed in full. However, it need not be regarded as the last word upon the subject, and space will gladly be set aside for other thoughtful letters along this line. Mr. Slater's letter follows:

"Taking great interest in the various questions published in the Motorcycle Illustrated for the enlightenment of your readers, also in the answers thereto, I must say that I find that you make your awards justly, according to the answers submitted to you, and as a rule the answers are very good and show a fine knowledge of the subjects under discussion, but it is to set right a fallacy that is too prevalent amongst gas engine users, concerning two-cycle motors, and it with those who submitted the articles on that subject, Question No. 8, and not you, as publishers, that I take issue.

"What I have to write concerning two-stroke cycle, or more commonly called two-cycle motor is based on long experience with such motors, first with marine and then with motors for motorcycle users, having built and used them for several years, and therefore I feel qualified to write on this subject in particular.

"I am of the belief that arguments are gymnastics for the brain, also that the two-cycle motor will be the ultimate type of motor for motorcycle use, owing to its inherent simplicity, and when the motoring public will demand a good, reliable motor, rather than speed, then the two-cycle will come into its own, and I am willing to give your readers the benefit of my experience in such matters, start a lively discussion, and thereby make it so that the cleanest, simplest prime mover in the world will be better understood and receive the honor and attention that is its due.

"The most noticeable fallacy that came to my notice was the fact that all three winning contributors were, and I dare say are, under the impression, because they make the assertion, that the incoming charge of gas assisted in expelling the burnt charge, after it had driven the piston down. Such is not the fact, as I have proven to my entire satisfaction, and all two-cycle experts agree that not only is the burnt charge not forced by the incoming charge, but that there is a vacuum in the cylinder at that moment caused by the inertia of the burnt gas rushing out of the cylinder by the rapid opening of the exhaust port and said vacuum is in some instances put to work by the designers of two-cycle engines to assist in drawing in the fresh charge of gas, an action that is diametrically opposite to the one given by the contributors of the articles in question.

"The fact that a two-cycle motor of poor design will misfire and "four cycle" is evidence of the truth of the above, misfiring and four-cycling is always caused by the fresh gas becoming contaminated by burnt gas being drawn back into the cylinder from the muffler by the vacuum already referred to, or by back pressure due to a muffler of too small a capacity causing the gas to become so poor that it fails to ignite and will only fire, after two or more charges have been sent into the cylinder enriching the gas so that it will explode."

FROM A DENVERITE.

EDITOR MOTORCYCLE ILLUSTRATED: In view of the fact that the F. A. M. directors will soon decide on the city where the F. A. M. convention will be held for 1913, I think it is our duty to let them know a few of the attractions that Denver has to offer. We have hotel accommodations for any crowd that may come; in fact, Denver is known as a convention city. Never yet has it been overcrowded at any convention and accommodations are never at a premium, even with a convention like that of the G. A. R. As for garage and repair shop accommodations, Denver dealers are wide-awake enough to see that the boys will be properly taken care of. We have tracks here to satisfy both the dirt and board track fans. We have a one-mile dirt track as good as there is in the United States, and the Tuileries one-third-mile board track is already too well known to need extra mention.

As for park attractions, we have the White City, where every known kind of amusement is to be found. We have various natural mountain parks, which can be reached in from thirty minutes to two hours by motorcycle. We can have a snow-ball game in the middle of July by going up the Moffat road in a solid vestibuled train, only three hours out of Denver, to an altitude of 11,366 feet. We have hot springs at El Dorado Springs, twenty-five miles from Denver, where there are two immense swimming pools heated by the natural hot water that comes from the earth. We have an aerial railway, a funicular railway and cog roads on the mountains, within easy reach of Denver. In fact, Denver has as many and as varied attractions as any other city in the United States, barring boating. There are splendid roads southeast of Denver, via Pueblo and La Junta, over the Santa Fe trail, which would make a splendid route for visiting tourists from the East. As for the tourists coming from the West, all they would have to do would be to get to the top of the Divide and coast the rest of the way into Denver. Roads from Omaha to Denver via Cheyenne are also good.

Now Denver's climate is too well known to mention, so why shouldn't the F. A. M. convention for 1913 be held in Denver?

W. W. WHITING.

Denver, Col.

SOME SUGGESTIONS.

EDITOR MOTORCYCLE ILLUSTRATED. — A knock-out axle is very handy, but I believe one nut should be made solid on the axle. If one works a little tighter than the other (and it always does), it is very difficult to get both where they ought to be—equally on the rod.

After a rider has had two or more motorcycles he naturally wishes to extend his runs, and those of us having only Sunday to set aside for our trips feel the need of a lamp, in order to insure safe riding when coming home after dark. The trouble in having a Presto outfit is this: There is no proper place for the tank. The best position for the Presto tank is on the top of the gasoline tank, just back of the handlebars, but then the filler cap is interfered with. The filler cap could just as well be near the saddle on all machines, leaving the forward part of the tank free for the Presto. Some standard fixtures for fastening should also be supplied when a Presto tank is to be fitted.

In my opinion manufacturers should determine the best place for the lighting tank and make provision at the time the frame is made for fastening it there. The makers of the Presto tanks could then provide suitable fittings, and a vast amount of trouble would be avoided. We would also have a neater appearing outfit.

I consider a standard foot pump much better than a frame pump, and some regular provision should be made for fastening one to the motorcycle frame. W. A. SIEGBAHN.

North Tonawanda, N. Y.

THE PARTS PROBLEM.

EDITOR MOTORCYCLE ILLUSTRATED: I would like to enter a protest against something that to me does not seem fair, although there may be circumstances with which the average motorcycle rider is not familiar.

Through curiosity, I went over the parts catalogue of one of the prominent motorcycle manufacturers and took a list of the parts and prices necessary to build a 1912 machine that lists at $250 and was not much surprised that the total cost of parts bought in this way amounted to $425.93.

Why should unassembled parts cost more than a finished machine? Had I taken every individual part the amount would undoubtedly have been higher, but wherever parts were listed complete, such as saddles, carbureters, magnetos, I took the price as listed complete and not of each individual part.

In looking over a parts catalogue for the Ford automobile, I find that the cost of the parts is the same as that of the finished machine. Having access to parts catalogues of different makes of machines, I took one which to me seemed the lowest, and in some of the other catalogues I found identical parts that were listed at 10 and 15 per cent. higher.

R. L. BREHMER.

SIDECARS POPULAR IN FRANCE.

THE fair sex in the larger French cities is reported to have taken to the sidecar with alacrity, following the examples set by their American and British sisters. That the "voiturette laterale," as the sidecar is euphoniously named in France, did not sooner become popular with both sexes is due to the fact that the French constructors never built bigger than 2¼ horse singles except for use in racing, until very recently.

ENGLEWOOD M. C. STAG.

AT a recent meeting of the Englewood M. C. of Chicago, it was decided to hold a dance on the evening of January 25. The club gave a Stag Party Saturday, January 4.

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TIPS And TOPICS

NOT long ago I was talking things over with a rider who tips the scales at about 120 pounds in full kit, and among other news he announced that his 1913 'bus would be an 8 h. twin. While admitting that 285 pounds of motorcycle would be a little stiff to handle, and a balky 8 h. motor almost beyond his strength, still he felt that the hill-climbing ability of the mount and its battleship-like cleaving of sand would compensate for the "beef" necessary to start it off, etc. It was up to Ye Scribe to give his regular lecture on gearing immediately—and he did.

What 8 H. P. Can Do.

A HORSEPOWER is a horsepower, no matter whether developed by an electric motor, steam engine or gasoline motor. It will perform a certain amount of work when conditions are favorable, but at the expense of certain other conditions. On 5-ton brewery trucks, a pair of 4 horsepower electric motors are used, year in and year out, carrying big loads, in addition to the weight of the vehicle itself, over all kinds of surfaces. The highest speed possible with such an outfit is hardly nine miles an hour; if we take one of the elementary rules on mechanics we find that the truck user is carrying a big load at the expense of a loss of time, or a slow speed in this case. The total load carried is 8 tons (5 tons live load + 3 tons weight of truck). With an 8 h. motor, and a 400 pound total load (weight of motorcycle + that of rider), there will be a *gain* in time—a speed of over 70 miles per hour, following the rule that with constant power, the speed varies with the load.

A Question of Gearing.

THERE is no mechanism exempt from this law of mechanics, whether it be a lever or a complete motorcycle power-plant. When there appears a device which is not dependent on this law, the inventor will be the most renowned genius that the world has ever produced: he will have gotten out of the device more than there was in it; he will have actually got something for nothing. If there is only 5 horsepower to be obtained from a motor, no one can get 10 from it; however, if the gear ratio is 3.1, another ratio of 6.1 will in many cases give the *equivalent* of a 10 horsepower motor, at 3.1, but at the expense of *half* the speed, or *double* the load for the same speed. It is a question of gearing with limitations of cooling only for motorcycle service, and a big-powered motor is not absolutely necessary for solo work, unless extreme speed is desired.

Load, Speed and Power.

I RECEIVE inquiries from readers of MOTORCYCLE ILLUSTRATED at intervals as to how much power they should have in a motorcycle for country where there is much sand, steep hills or the like. I consider the following conditions as *load*, in calculating the power necessary for the inquirer's 'bus: weight carried, steepness of hills, kind of road surface. If he desires a round speed at all times, something approaching the manufacturer's stock gearing will, in conjunction with the load conditions, give an approximation of the power desirable in our friend's case. Thus, with the ordinary 7 h. motor and gear-ratio, anything reasonable in the way of load can be taken at a good round clip. This refers only to single-geared machines, however, and if the prospective rider desires a variable-gear mount for solo work, I would consider the 7 too large under most conditions, and suggest a 5 or even a 4.

Five Horsepower.

AS a matter of fact, with a variable gear (two speeds), with a 4⅞ or 5 to 1 top ratio, a sidecar and passenger can be taken over roads which are not pitched as steeply as a peak roof, or which do not resemble cattle-wallows. The low ratio of a two-speed gear should enable the outfit to go almost anywhere that the driving wheel will "bite," especially if it is about twice the reduction of the top ratio. This may sound strange—the recommendation of a single five for sidecar work, but we stand by it, nevertheless. When there is no two-speed fitted, I would certainly not recommend such a mount for the sidecar, except where roads are good.

Fan Cooling.

IT may be necessary in the future to assist cooling by means of a fan, driven from the motor. Tricar outfits cut off considerable of the front draft of air, and firms like the N. S. U. invariably employed a fan, and a two-speed gear for such a rig. The sidecar interferes only with a portion of the circulation, from the side, but this is generally the valve side, and some motors beside which I have ridden have shown tendencies to run rather warm, when baggage was carried or the lap robe cut off part of the air current. But the fan shows at its best when running on the lower gear, as it cools the cylinders in spite of the slow passage of the motor through the air and its relatively high speed. But there are only a few variable gear models on the market, and the need for more will soon manifest itself. We cannot all afford big-twins, and the sidecar is *the* passenger attachment most desired.

Slow Development.

TO my mind, the development of the variable gear has been too slow, here in the United States, considering our position in the motorcycle world and the quality of our machines. American mounts hold speed records which have never been equaled. In 1911 we won the Senior T. T. Race, something that no motorcycle of other than British make can claim today. Yet, there are not five American firms that fit two-speed gears regularly at this time, and to equip other makes involves the use of imported devices and much machine work. We literally throw the work on our clutches which should be taken by the low ratios of the variable gear devices, and that the clutches occasionally fall down is no fault of their makers. Take the Kansas Short Grass Tour, for instance. Would not the going have been at least slightly easier if the contestants all had two-speed machines? Would there not have been less pushing in places? Roads like those encountered by the Kansans are by no means rare, and the variable gear ought to be fitted wherever there is heavy going, where sidecars are used or where hills are steep. This is my opinion, and I feel that I have lots of fellow-riders who will agree with me.

Snow and the Sidecar.

NEW YORK had about a foot of "the beautiful" just before Christmas and I took a sidecar trip as soon as the fall stopped sufficiently to see the road ahead. It was a wet fall, and soon packed to form ice which was broken up into chunks by the ploughs and general heavy traffic. Going was by no means sweet, but we made over 14 miles, in about half of which we had to break our own way through the snow. I counted over 50 gear changes in that distance and then gave it up as too much of a job. We covered the usual riding sections for the two-wheeler crowd, but were as lonesome as if on the Mojave Desert; there wasn't a solo mount out, much less a sidecar rig. We had chains on both rear and sidecar wheels, yet I doubt if we could have made any progress were it not for the two-speed gear with the 7 h. twin. I have since learned that another sidecar rig started out, but being single-geared burnt out the clutch and had to be pushed back by hand. Our own ride was brought to an end by the rider getting saddle-sore and the passenger wet to the knees from pushing up steep grades covered with drift snow. That certainly was an occasion where a variable gear was necessary, and proved it.

FLOYD DELONG, of Lima, O., recently rode from his home to Buffalo, covering the 369 miles in one day.

A TOUR of 2,000 miles to be held in the autumn of this year is being planned by the National Capitol M. C., of Washington, D. C.

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MACK

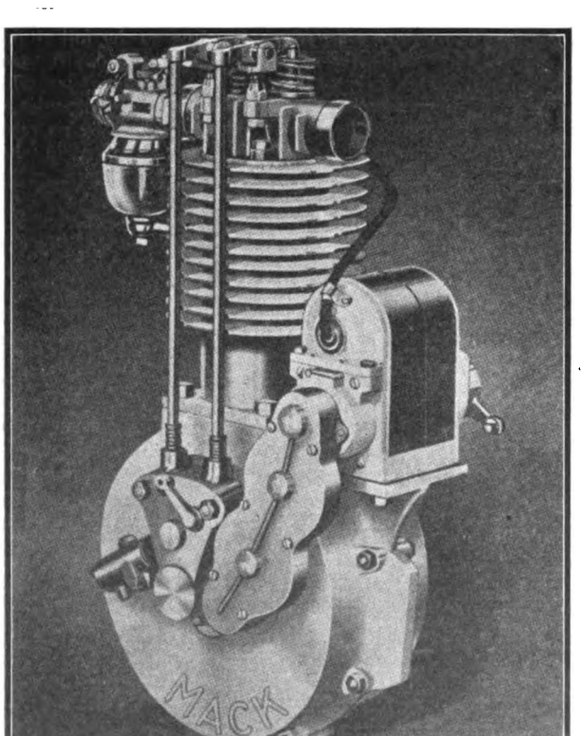
"The Mighty Motor"

4 and 5 H. P. Single - Interchangeable
7 and 9 H. P. Twin - Interchangeable

Everything that is considered ideal and nothing that is considered detrimental for perfect motor efficiency is contained in the MACK MOTOR.

It is the product of keen and intelligent study of road conditions in America and of an unusually comprehensive grasp upon what is good in motorcycle motor designing.

Large cylinders, ball-bearing crank shaft of drop forged special alloy steel, oil-tight crank case, overhead valves and, last but not least, perfect interchangeability of parts, assured by micrometric measurements—these features and more are offered in the MACK MOTOR.



The problem of oiling a motor has been given careful consideration in the building of the MACK, and as a result of ceaseless investigation and experimentation the MACK positive mechanical oil pump was evolved. With the use of this oil pump the lubricant is delivered directly to the crankcase and necessary parts. There are no valves to clog with dirt and the pump is exceedingly economical in its oil delivery.

The MACK is going to "do things" this year. It will be seen on the road and it will be very prominent on the track.

We want to hear from those who are interested in knowing more about "THE MIGHTY MOTOR."

The Universal Machinery Co.

1913 St. Paul Ave. **Milwaukee, Wis.**

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As a Show Souvenir, a pennant is a very desirable little remembrance and one which will never fail to attract attention. Dealers will utilize them as wall-hangers, riders will attach them to their machines or hang them up in their dens.

And you, Mr. Dealer, should appreciate the big business possible with a line of our pennants. We are manufacturers and stand ready to make pennants in large quantities to order on extraordinarily short notice.

We reproduce machines or accessories with lifelike realism. All colors are waterproof and cannot be eradicated.

Write us at once for quotations and send 10c. for sample pennant.

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Here are the Side Cars that Have the Long Desired Rocker Motion

We ask that you send for our catalog so you can compare the "Anders" with every other sidecar. We urge you to give all makes the hardest tests you know of. We ask that you compare all features—point for point—for we know that your choice will be the "Anders" and it will be well that it should for "Anders" sidecars are ideal—they answer every sidecar purpose and demand.

They are cleverly designed, well made and priced from $60.00 to $90.00. A real sidecar in every way and manner.

THE ANDERS SIDE CAR—ROCKER MOTION

The springs in the "Anders" are made of oil tempered Swedish Spring Steel, body resting on body loop, bringing springs on either side of body instead of directly under it, therefore doing away with the side motion. We use one type of chassis—made to fit *your* machine.

Front spring on which foot of body rests, is a departure from the old time spring and is called the Rocker Spring. This is fastened to the frame by a "T" socket. Thus, instead of the usual swaying motion, you have the rocker motion, the spring under the foot of the car working in unison with the rear spring, which insures comfort and safety for the passenger. Frames are seamless steel tubing. Sidecars are attached by two lock joint couplings. No clips or clamps to get loose and rattle.

CLASSY DESIGNS

"Anders" Side Cars are designed to give genuine service and pleasure. You'll be proud of the "Anders" because it adds distinction to your mount. Our catalog, which is waiting for you, tells the story.

NATIONAL ACCESSORIES

Our National Tandems should be your choice. They are fitted with handle bars, making them safe and comfortable. They fit any motorcycle. The bearings being in front of rear axle, thus eliminating all danger of tipping without regard to weight carried on the rear seat. There's no jarring, but a "velvet-like" ride. We also make luggage carriers, etc.

We are pioneers in the manufacture of sidecars and accessories. We won our way through sheer merit of values and service. Eight years of actual experience are behind goods of our manufacture.

DEALERS and RIDERS: Write us today for full particulars.

NATIONAL CYCLE ACCESSORY CO.

Dept. A **AURORA, ILL.**

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What A Veteran Rider, Repairer and Rebuilder Has To Say About Belt versus Chain

St. Louis, Mo., 12/3/12.

The Graton & Knight Mfg. Co.,
Worcester, Mass.
Gentlemen:—

I have read your articles in defence of the belt drive in the various motorcycle journals with much attention and I believe that I am as well informed and able to express an opinion on same as the average rider, as I have not only ridden practically every standard make of machine on the market, but I have taken down, repaired and rebuilt nearly every known make. This letter is not intended as a comparison of the merits of any make or makes of machines, but I want to put myself on record as EMPHATICALLY IN FAVOR of the belt drive.

Now, let me tell you the difference that I found between belt and chain drive machines when I took them down and built them up again after they had been on the road from 5,000 to 10,000 miles. On the chain machines practically every bearing was badly worn from the rigid, jerky pull of the chain. Not only new chains were necessary, but (on the countershaft-type machine) four new sprockets had to be replaced, for they were worn to a knife-edge and a new chain would not fit them. I generally found the spokes loose and some of them missing, literally pulled through the steel rim by the jerky action of the chain. I always found the wear more severe on tires and coaster brake parts on the chain models.

Regarding the comparative wear between the belt and chain, I can give any number of instances where a good flat belt has gone 10,000 miles, real miles, and pulling tandem at that for a good part of it. I believe it is pretty well known that 2,000 miles is good mileage for the short chain.

Did you ever see a new belt break? I never did see one break; perhaps they do when they are very old. A broken belt is about as scarce as a dead mule.

Did you ever break a new chain. Of course you did.

Once I had a chain break 'way out on a country road, tried to get in half link, found it made chain too long, then I tried to adjust my long chain, only to find that the pedalling chain was so tight that I couldn't turn the engine over and all the time it was getting darker and a soft patter of rain started to

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come down. I sent the blamed 'bus in on a wagon and spent three hours the next day adjusting the whole outfit to my satisfaction.

Another unpleasant experience is to soak your chain in a messy lot of grease and graphite to stop that confounded rattle, and then, after riding a few miles, find that your clothes were spotted all over with black blobs of graphite and grease until you looked like a prize coach dog, and then I found that what grease remained on the chain had picked up a heavy coating of limestone dust that was cutting the very gizzard out of my chain.

The fit of a roller chain on a sprocket is a beautiful piece of work, that is, before it starts to stretch, and they do stretch, believe me, worse than some belts. When the chain starts to stretch the rider gets a jerky action in his machine that worries him and then someone advises him to tighten up his chains. Alas, this only aggravates the matter, as the chain now starts to "ride" the top of the sprocket, and the first thing the rider knows he starts to break chains in earnest.

About the best test of the effect of chain transmission on the wearing parts of a motorcycle is the fact that second-hand belt machines bring about twenty-five per cent. more than similar chain drive machines. A dealer can safely allow a customer a better price for a used belt machine than a chain driven one, as in the largest majority of cases they are in better shape all round, mechanically, owing to the flexible belt drive which has spared bearings, tires, brakes, spokes, etc. There is no possible doubt of this, any fair-minded dealer who has handled a number of used machines knows this fact.

I want to make a statement here that anyone who has studied the transmission problem will understand. There has to be a "slip" somewhere to ease the shock of the explosive impulses and it must be an "automatic slip" slight, but constant. The compensating sprocket, which the chain drive people will find they made a mistake in discarding, came the nearest to the smoothness of the belt drive machines, for no rider can constantly "jockey" his clutch to obtain the automatic flexibility and smoothness which a well-adjusted, compensating sprocket gave.

Now, if there must be a slip somewhere and if the leather belt takes the wear off the different parts of the engine which are expensive to buy and difficult to replace, why not use it?

Yours very truly,
BUCK SALES CO.,
George D. Buck.

SPARTAN BELTS

are used on 90% of all Belt driven Motorcycles.
A sure indication as to their merits.

The Graton & Knight Mfg. Co.

WORCESTER, MASS.

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(Patented)

SHOWING A RED REAR LIGHT

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The Neverout complies with the laws of the various States and Municipalities.

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Made in gun metal, brass or nickel finish. Double clamp bracket furnished; fastens lamp securely to fork of motorcycle. No danger of shaking off, and *shows red rear danger signal.* Sold by leading jobbers and dealers everywhere.
The Neverout is equipped with a *Patent Glass Covered Reflector of German Silver,* instantly removable; never loses its original brilliancy.

Guaranteed to stay lighted or money refunded

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Mobiloil

DIFFERENT motorcycles need different lubricating oils.

Some one of the several grades of Gargoyle Mobiloil will get the greatest efficiency from your motorcycle.

Send us the name and model of your motorcycle. We will tell you the grade of Gargoyle Mobiloil that is best suited to it.

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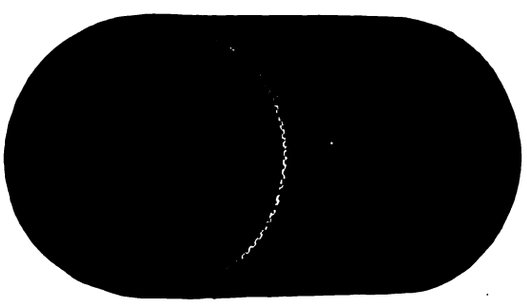

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AN AIR-FILLED MOTORCYCLE TUBE POSSESSING VERY UNUSUAL FEATURES:

First: It withstands a tread puncture without deflating the tube.
Second: The higher the pressure the tighter the puncture closes.
Third: It eliminates the risk of destroying casings by reason of punctures.
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Fifth: It assures you of not being obliged to repair a puncture on the road and gets you "there and back" on full tires.

AIR FILLED ONLY.

Punctures are self-closing by reason of a scientific but simple principle of construction.

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Write for prices, full description and sectional sample.

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Make your motorcycle a 24-hour servant

Dare you ride your machine any time and place you please? Or does nightfall catch you worried and anxious, creeping along in fear and trembling?

If so, you're missing most of the fun of motorcycling—you're tied down to the daylight limit.

But—a RELIABLE source of light, with a lamp large enough, will make your night riding pleasant and SAFE.

Oil lamps won't do—gas generators won't fill the bill either—they're unreliable and troublesome. What you need is a **brilliant, unflickering light,** that floods the road ahead, searching out every bump, rut, puddle and other source of dangerous spills.

Prest-O-Lite Owners

"The only light for me," says A. G. Zellmer, of Elysian, Minn., who drives an Excelsior.

HERE'S THE ANSWER!

Prest-O-Lite Motorcycle Gas Tank

This is your only source of satisfaction—because it's the *only* PRACTICAL lighting system for motorcycles.

It means a *brilliant* and RELIABLE light for you—steady under all road conditions. Turns on and off like a gas jet. The neat, attractive nickel-plated Prest-O-Lite Tank will add to the beauty and service of your machine, without adding materially to the weight.

Prest-O-Lite is not expensive. The money you invest in the tank itself is not *spent*, because a genuine Prest-O-Lite Tank never becomes second-hand, is always in demand—and therefore saleable for almost what it cost.

Price of Tank $10

(Equipped with Gauge)

Dimensions: Length, 13¼ inches; diameter, 4 inches; weight, 8¾ pounds. 40 hours of light. Easily attached to any motorcycle.

And any experienced rider will tell you that Prest-O-Lite exchanges cost no more, usually less, than the carbide to feed a generator. Wherever you may be, exchange service can be had from one of our 20,000 dealers (motorcycle and automobile). We will arrange for prompt exchange service for anyone anywhere.

You shouldn't deprive yourself of the added pleasure and convenience Prest-O-Lite will give you. You can't afford to do without its SAFETY. One accident due to poor light will cost you more than a year of Prest-O-Lite service.

Just a Word on Imitations

The genuine Prest-O-Lite Tank, when empty, can be immediately exchanged for a full one, ANYWHERE and ALWAYS. Imitations cannot.

The dealer who slips on a counterfeit in exchange for your Prest-O-Lite Tank gets the best of you. Don't let him!

We will not be responsible for short measure or poor gas in tanks not filled by us. Protect yourself by accepting only tanks filled by the Prest-O-Lite Company.

The Prest-O-Lite Co. 246 E. South St. INDIANAPOLIS, IND.

Canadian General Office and Factory, Morritton, Ont.

Branch offices in all principal cities. Charging plants in all parts of the country. Extensive foreign service.

EXCHANGE AGENCIES EVERYWHERE

Mr. Dealer! There's a good profit in Prest-O-Lite Tanks and Exchanges. You may as well be getting it, for a simple statement of the facts about the Prest-O-Lite Motorcycle Tank will make the sale. And remember it's a bad idea to get your customers into the habit of going elsewhere for their Prest-O-Lite Exchanges if you want their trade on other things.

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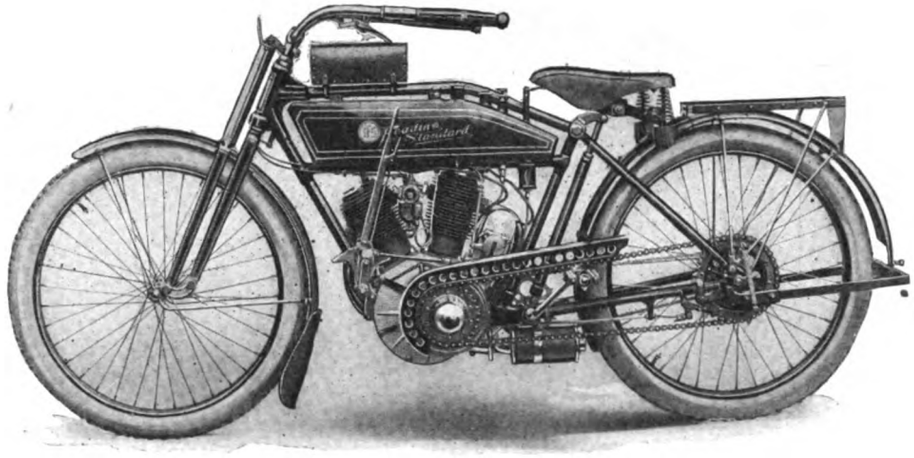

Here are some *Facts* about the "R-S"

which the cautious buyer should note

IN all our advertising we have always carefullly refrained from making exaggerated statements. An honest, straightforward presentation of facts has been, and is, our policy.

Time and again we have demonstrated the superiority of the R-S Cork Insert Cone Clutch. We have shown why the R-S Motor, with its integral cams and gears of specially treated Vanadium steel, its large cooling flanges, its long stroke, its mechanically operated valves, is the most reliable, the most flexible, the most powerful, the most durable—a motor that stands the test of time—that triumphs over the worst road conditions, that survives the most gruelling test and remains fresh and sweet through it all—never taxed to its utmost, always with plenty of reserve power upon which to draw.

Comfort—that quality which a motorcycle **must** possess to make it in any way desirable, is assured by the R-S vibrationless motor, foot-rests, shock-absorbing spring seat posts, adjustable to

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features —which, by the way, we first introduced into America—we have remained within reasonable bounds. Though the temptation was great, we have refrained from burdening the R-S with so-called "improvements" which would only tend to make the machine more difficult to operate, and whose value is still to be proven.

Therefore—we have made the R-S as simple, as easy to operate, as clean-cut and graceful as the preceding model. We have devoted our time, brains and money, not to devising new "selling-points," but to making every detail in the R-S **absolutely perfect.** The 1913 R-S is simple, strong, durable and comfortable, with a tremendous amount of speed at its command, and each quality is better and more consistently represented in the R-S than in any other motorcycle on the market today.

Now, Mr. Dealer, It's Up to You!

Are you going to let this opportunity to corral a live agency slip by? Or are you going to quietly make a note of the fact that we are exhibiting at Space No. 709 at the Grand Central Palace and determine to investigate our proposition as soon as you enter the exhibition hall?

It is the ability to act upon a thought that distinguishes the successful man from the "down and outer."

So, REMEMBER! We're at Space No. 709 at Grand Central Palace.

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Service-Belt Drive, $200

Tourist Belt or Chain **$225**

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Persons Champion Motor Seat

Model "R," 13" long and 12¼" wide, built with compound springs of unequalled resiliency, permitting lowest possible saddle position, no friction, side sway or squeaking—solid double oak leather tops from cold liquor slow process of tannage, and tanned in our own factory—every minute detail in material, quality and workmanship the best possible, it is on sheer merit alone the supreme saddle. Built for the maximum of hard service, with the greatest Comfort and Durability to be found in a Motor Seat. Persons reputation as the Saddle maker of America was founded in 1892, and it is greater now than ever!—a silent tribute to "quality"—characteristic of the Persons Plant. Specify that you want a "Persons Champion Motor Seat" and INSIST ON IT WHEN NECESSARY and if you wish to know why drop us a card. We will be more than glad to write you, first mail, and tell you all about Persons Quality and why you should ride a Persons Champion Motor Seat.

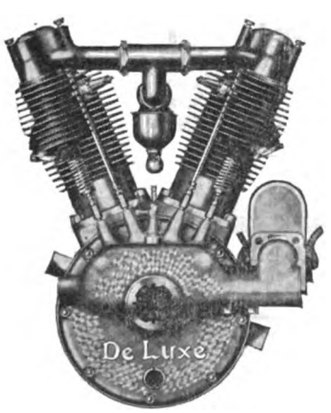
The Persons Manufacturing Co.

The Oldest Makers of the Newest Motor Seats in America
Worcester, Mass.
A catalog may be had for the asking

DeLuxe MOTORCYCLE MOTORS

A Revolution and a Revelation

in motorcycle motor design. With the many improvements in De Luxe Motors, we have not only overcome the defects in the conventional motor, but we have shown the trade what a good motor should really be.



FOUR SIZES

4 H. P. Single Cylinder **5 H. P. Single Cylinder**
7 H. P. Twin Cylinder **9 H. P. Twin Special**

The F. W. Spacke Machine Company

INDIANAPOLIS, IND., U. S. A.

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Persons Anatomical Motor Seat

is really the latest word in the Persons art of Saddlecraft; Riding—akin to gliding in an aeroplane, is experienced in this wonderful Motor Seat. A seat that makes saddle fatigue unknown, with its feeling of Bottomless Velvet.

"Persons Pan Saddle," as it is sometimes called, is built to sit **in**, rather than **upon.** It is built for the discriminating rider, who values Comfort; and for the Manufacturer with whom Quality is a keynote. It is a Motor Seat De Luxe. This seat of sterling worth, a kind not found in general distribution, may be obtained of your distributor, jobber or dealer. It is the acme of Healthful Comfort and Masterful Design.

The Persons Manufacturing Co.

The Oldest Makers of the Newest Motor Seats in America

Worcester, Mass.

We have published—in four colors—a booklet that is a revelation to those who would be "Saddle Wise." Send for it.

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THE INSTRUMENT OF PERMANENT ACCURACY

New unbreakable steel shaft casing, heavy bevel joint. Nickel steel gears. Special axles for all motorcycles requiring swivel fittings. Drop forged and hardened swivel fittings with large bearing surfaces. Ball bearings in the bevel joint, shaft coupling and main spindle. The new outfit will stand hard usage without injury.

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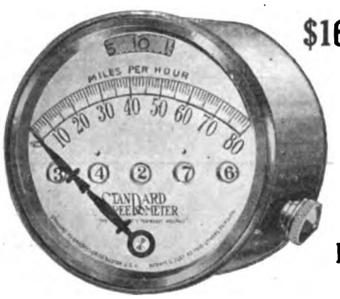
Fittings Patented, the Only Practical Ones in Use



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Other Models $14.50 and $12.00

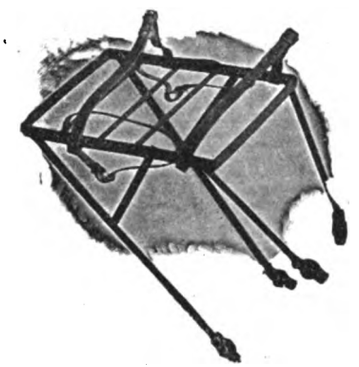
Dials 60 or 80 Miles

Every effort has been made to produce the neatest, most accurate, and above all, the most durable speedometer manufactured to date.

Catalogue on request.

The Star Luggage Carrier Is Built For Heavy Duty

For the rider who wants to carry an excessively heavy weight behind the saddle, the Star Luggage Carrier fills the bill.



Scientifically constructed of steel, heavily reenforced at points of wear, the Star can withstand considerably over 300 lbs. weight. For tandem riding the spring action makes it an exceedingly comfortable seat. The Star is handled by the leading jobbers in America. Write us.

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Chicago, Ill.

The Sidney B. Roby Co.

ROCHESTER, N. Y.

Bicycles, Bicycle and Motorcycle Sundries, Garage Supplies

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COME OVER HERE!

We want you to have our NEW 1913 Supply Catalog. We have taken months to make it complete, interesting and useful. It shows a complete line of motorcycle accessories—standard goods that we know we can sell with a guarantee of satisfaction.

IN THE MIDDLE

Our location, Kansas City, is the center of the United States. By Parcels Post or Express you can buy from us and save money—and on the highest class goods.

SEND A POSTAL FOR OUR CATALOG.
Also ask for the

Yellow Sheet????

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HERE'S A REAL NOISE-MAKER!

No other bulb horn is operated like the **ACME SIREN**

"THE LITTLE HORN WITH THE ENORMOUS RANGE"

A slight pressure of the fingers upon the bulb and the result is astounding. Immediately a shrill, whining shriek is heard. As an effective road clearer the Acme is startlingly efficient. Those dealers who have not yet catalogued the Acme should write us at once for electrotypes.

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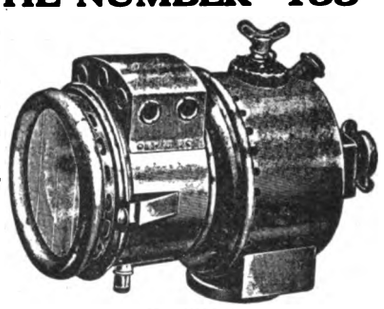
Every Line Perfectly Designed

Depth, 5 in.; Dia. Door, 3 in.; Height, 5 in.; Weight, 24 ounces; Finish, nickel plate. Efficiency and Durability guaranteed.

List $5.00
Dealers' Prices on Request.



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Telephone Franklin 18

SPORTSMAN'S APPAREL CO.

Specialists in Motorcycle Apparel

MANUFACTURERS OF SPORTMEN'S CLOTHING OF ALL DESCRIPTIONS

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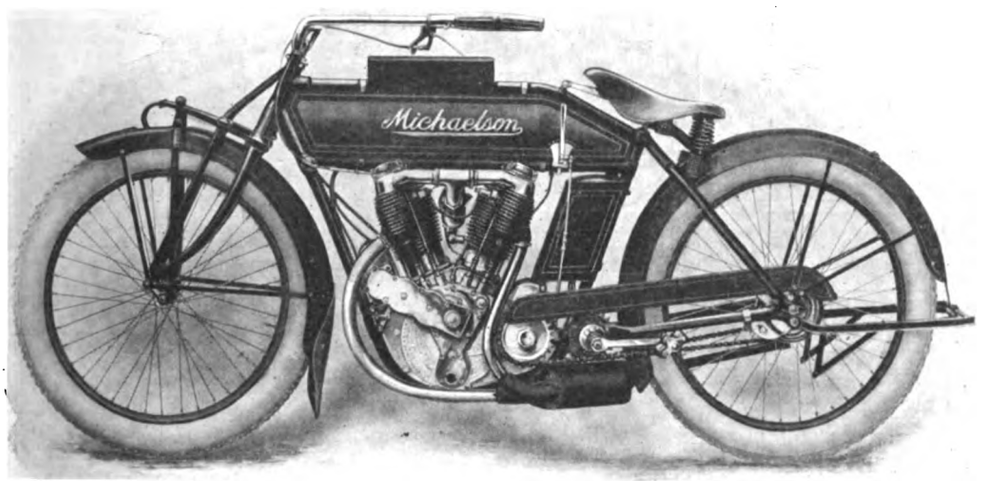
THE NEW MODELS GREATLY SURPASS THE OLD.



Model "10A," 10-13 H. P.

During the exhaustive tests this machine was put thru in the tryout of the past season the motor proved itself a wonder. Remarkable for easy starting, flexibility and smooth running.

FOR POWER AND SPEED IT IS THE LIMIT.

Improved Two-Speed Gear, Extra Heavy.
Enclosed Clutch running in oil.
Clutch Control Lever on Handlebar.
Mechanical Oiler, also Hand Pump.
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Extra Heavy Roller Chain. 5/16" x ¾" pitch.
Chain Guard full length
Cushion Seat Post.
3" Tires, front and rear.
1½" Exhaust Pipe, Silent Muffler.

Our 5 H. P. Single and our TRICAR are also winners for 1913.

AGENTS. We have the line of machines that you should handle. We have the **Factory,** the **Men** and the **Resources** to build the best machines on the market. We have had five years' experience in building Two-Speed motorcycles. We are prepared to make **Early Deliveries.**

Better get our agency proposition at once. Illustrated Bulletin No. 1 now ready, giving full information regarding our line. A postal will bring it.

THE MICHAELSON MOTOR CO.

526-530 Fifth Street South. **Minneapolis, Minn.**

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One time, three cents a word; twice, two cents a word each insertion. Agents' cards, five cents per word; two or more times, three cents per word each insertion. No advertisement for less than fifty cents.

A GREAT PULLER

"Gridley, Ill., January 3, 1913.
"MOTORCYCLE ILLUSTRATED, New York City.
"Gentlemen: This is just to let you know that your paper is a great puller. I got over 20 inquiries from my little advertisement in your publication, and I am still getting them every day. I sold the goods advertised to the first man to answer my advertisement.
"Wishing you and your paper success, I remain
"Yours truly,
"(Signed) AARON EHRESMAN."

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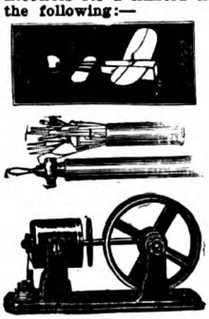

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15c per Copy (Act quickly as our supply of the above is limited.) $1.50 per Year

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AGENTS WANTED

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DOUD LIGHTING CO.,
137 No. Sangamon street, Chicago, Ill.

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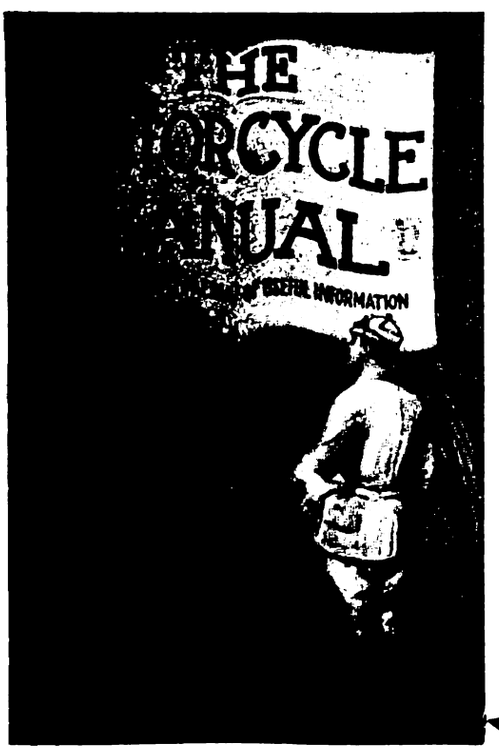
There are times when Ignorance is Not Bliss

Let us enumerate:

For instance, on a sweltering day while you're happily breezing along, your motor suddenly develops the "fidgets." You get off and investigate. If you know all about a motor's internal construction and are "wised up" on how to handle a cranky magneto, and know all there is to know about the carbureter—you will EVENTUALLY locate the trouble. But if you don't—you're STUCK!

Then is the time to dig into your tool box and consult your tried and true friend

The Motorcycle Manual



Its trouble chart tells how to locate the trouble and REMEDY IT. It tells all there is to tell about every part of your motorcycle. It gives concise information regarding license laws in every State in the Union. It gives the official racing records. It explains horsepower and other mechanical formulae; it is a handy motorcycle trade directory; it enlightens you as to the F. A. M.—who's who and what he is doing—it—oh, well!—do you think you can afford to be without it?

And it costs a quarter. We don't have to tell you what to do with the coupon in the corner.

Motorcycle Publishing Co.
51 Chambers Street, New York

I enclose 25c. for a paper-bound copy of THE MOTOR-CYCLE MANUAL. 50c. for a cloth-bound copy of THE MOTOR-

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When Used as a Motorcycle Garment.

FVRDRI

"Proofed for Rain"

Motorcycle garments and other sporting clothing made from FVRDRI are noted for their Long Wearing and protecting qualities.

The "ELCO" Coat

Patent Applied For

One of the many serviceable garments of

THE LOEWENBERG LINE

Is the "Easy On and Easy Off" Coat and is also made from FVRDRI material. It is especially designed for the **Motorcycle** and **Motorcar** owners. All users are delighted with it. Our line of motorcycle clothing in Norfolk or double-breasted style is complete and is carried by all up-to-date dealers everywhere. If your dealer does not carry them, will appreciate your writing and telling us so. You should have our new catalogue. Where shall we send it?

We Make the F. A. M. Official Uniform.

THE LOEWENBERG COMPANY, 58 Colden Street, Newark, N. J.

GET

Auburn

Motorcycle Spark Plugs

for your 1913 Equipment

THEY WORK WHILE YOU RIDE

New York Mica & Mfg. Co.

AUBURN, N. Y.

Now Is The Time To Get

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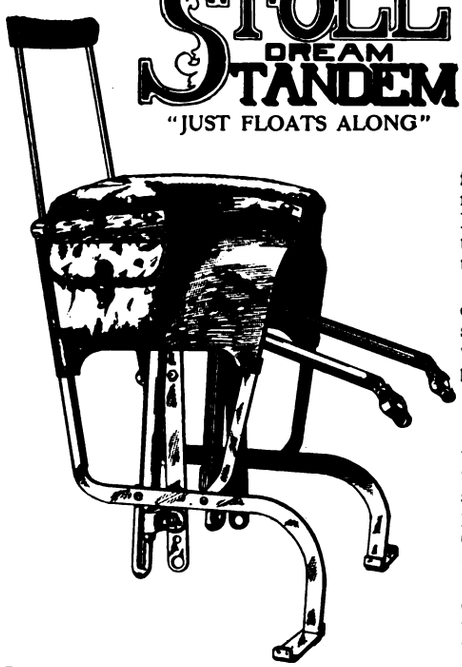
Liberal Commission Allowed

WRITE US

STOLL DREAM TANDEM

PATENTED

"JUST FLOATS ALONG"



A few of the features that help make the STOLL DREAM TANDEM the easiest riding tandem in the world.

Genuine leather cushions gracefully shaped and provided with skirt guard and pockets.

Folding foot-rest.

Rocking motion which allows the tandem to remain steadily in the same position, regardless of the jolting of the machine.

The back-rest combined with the rocking motion give the rider a sense of security and comfort found in no other tandem. Can be raised or lowered instantly while riding.

Send for catalog. Dealers' proposition now ready.

Get in line with the live ones.

THE QUEEN CITY I. & W. WORKS

33rd and Walnut Streets DENVER, COLO.

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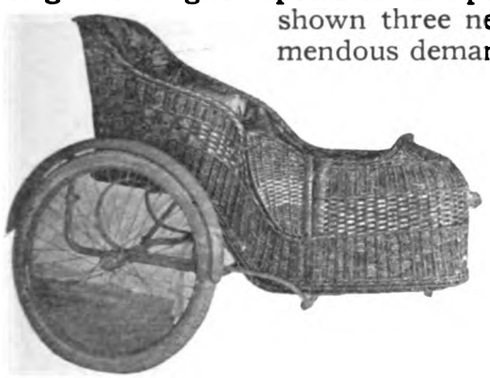
Baxter

The Sidecar Luxurious

Never before has the sidecar been so universally popular. There must be a reason for this, and it is not hard to find. The consistently satisfactory service given by Baxter Sidecars—their comfort, their durability, their lightness and their generally ideal construction did more in 1912 to give the right impetus toward popularizing sidecar riding than anything else. Here are shown three new models of the Baxter that cannot help but be in tremendous demand.



Model No. 1.

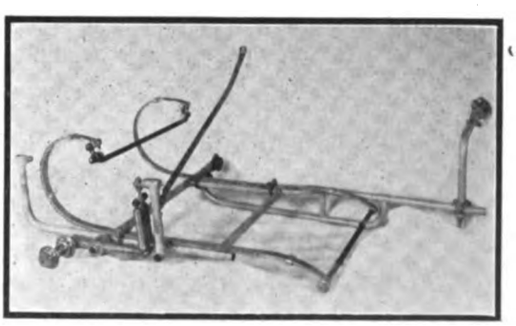
¶ Body made of small reed. This model is one of the most popular in England. It is staunchly constructed and water cannot affect it. Chassis of seamless steel tubing, double truss frame construction, rigid mudguard. Price, $80.

Model No. 2

¶ Body made of willow, steel reinforced throughout, deep leather cushions, non-fraying. A splendidly light and substantial body. Same chassis construction as No. 1. Price, $75.

Model No. 4

¶ A combination of canoe and open front type. Body of Indian rattan. Price, with same chassis as No. 1, $65.



Here is shown the famous Baxter chassis which is the basis of our success as sidecar builders. Note that there are only two points of attachment, both quick-detachable. Tension spring, absolutely absorbing all shocks, fitted to any of our models, $10 extra. Write for our complete catalog, describing the Baxter Delivery Van, the last word in commercial sidecars.

Baxter Sidecar Co.

119 BROADWAY
CAMBRIDGE

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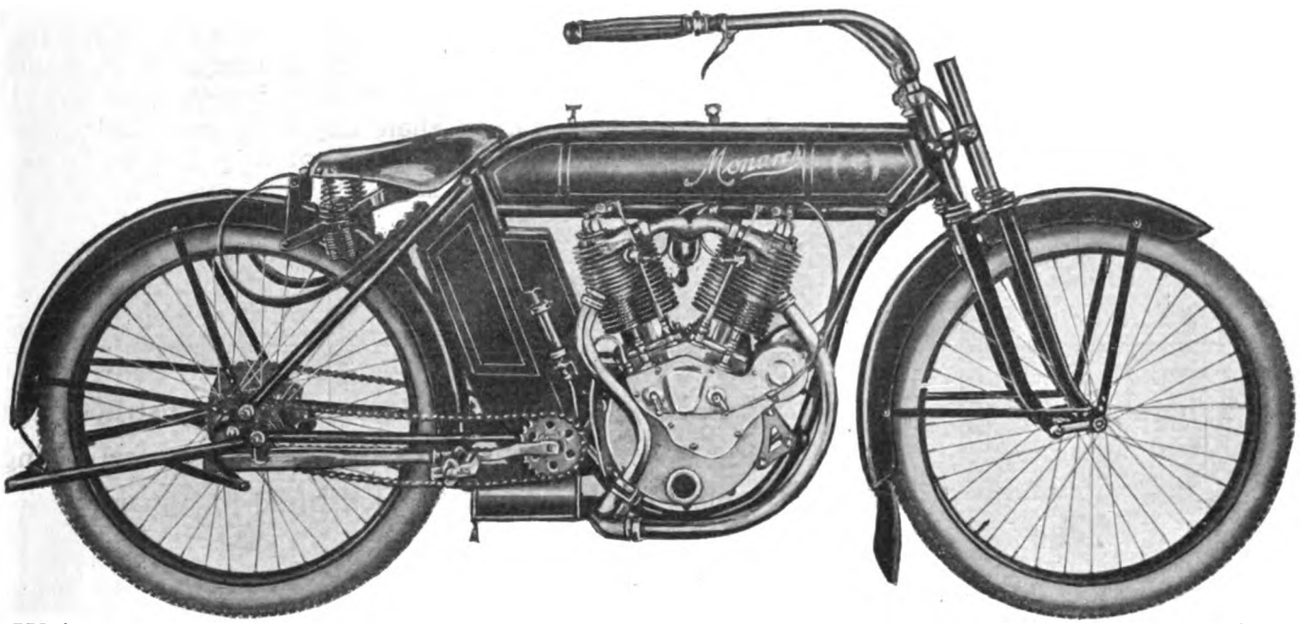
Monarch 1913 Announcement



Weight 250 lbs. **10 H. P.** **Price $275**

MONARCH Motorcycles are built by men who KNOW that they are building the BEST motorcycle; and not by men who guess and experiment at the expense of the motorcycle buying public.

The Big 5 single, tried and tested, is the most powerful and simple motorcycle on the market. Furnished in either chain or V-belt drive.

The 10 h. p twin, has all the tried and tested features of the Big 5, with the added power and speed of the second cylinder, and is the only machine for those who want the best that it is possible to build; a motorcycle that will take its rider anywhere and back, with no further attention than seeing that the tanks are filled, and that the motor gets gas and oil.

The MONARCH leaf spring seat suspension is the swellest and most easy riding contrivance ever invented. Like the most expensive cars, it suspends the rider stationary and allows the machine to take all the bumps without transmitting any to the man on the saddle. It is indeed a triumph by men who know how and are only willing to build the BEST.

The MONARCH agency for 1913 will be the most satisfactory proposition possible to obtain, for the Motorcycle dealer. Send for advance sheet No. 1 and testimonial book by MONARCH riders, that will convince anyone that our claims are founded on facts.

Single Cylinder—Weight 225 lbs. **5 H. P.** **Price $225**

We exhibit at the New York Show, Space No. 722. Chicago, Space No. 2.

Ives Motorcycle Corporation

200 John Street, Owega

Tioga County **NEW YORK**

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"Don't envy a smooth running motor. Use Hagstrom Spark Plugs and have one."

MORE POWER on LESS GASOLINE

Ask any Harley rider to verify this.

That porcelain-and-mica feature is an exclusive Hagstrom idea.

The electrodes are genuine imported "Meteor" metal—so expensive that few plug makers are using it.

The "Hagström" is the regular equipment of 1913 "Yales" —"Marvels"—"Indians" and "Velies."

Your dealer has them or will get them for you.

$1.00 Each

Send 35c. in stamps today for a sample roll (60 inches) of Genuine "Zim" Pulley Lag—the first correct-in-principle lagging offered to the riders of America. Doubles the life and adds to the pulling power of your belt.

Your money back if "Zim" is not the best you've ever used.

THE HAGSTROM BROS. MFG. CO.
Box 144, Lindsborg, Kansas

CHICAGO OFFICE
1725 S. WABASH

More Money for You

We save you a quarter for every dollar you spend with us. Send for our Catalogue—it's free.

Motor Cycle Co-Operative Co.
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NEW CATALOG 300 PAGES Ready Feb. 1st

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MOTOR CYCLE
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DEALERS GET YOUR NAME IN

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ERO MANUFACTURING COMPANY
TRADE MARK

SPECIALISTS IN TANDEM ATTACHMENTS AND OTHER MOTORCYCLE ACCESSORIES

Model 47.

MODEL 47

The biggest value for the money ever offered. The luggage carrier is our Model 2, with the rear arch extended and formed into foot-rest. Cushion is our Style B, spring top, an extremely comfortable seat. Very light. Combination attachment, complete, with skirt-guard and spring top cushion, $8.75.

MODEL 1

Readily attached to any motorcycle. Made of 1¼ x ¼-inch spring steel. Non-breakable and non-twistable handlebar. Low, comfortable saddle position. Foot rests on spring pedals, well forward, whose wonderfully smooth action absorb all jars and assures the permanent foothold on the pedals. Model 1, price, complete, as shown, fully nickel-plated, $15; without saddle, $12.

Model 1.

The cuts show only two of the many exclusive and attractive models of tandem attachments and luggage carriers carried by us. All these attachments have proven great sellers and enormously popular. They actually offer the biggest value for the money.

If you don't know about the **Ero Stand Latch,** the handiest and most useful attachment, write today.

Just press the trigger with the foot, when the stand will instantly drop out.

If the stand is lifted into position with a spring, it is then only necessary to press the foot, first upon the trigger to release the lock, and then follow the pressure down till the stand strikes the ground. Easily attached. Price, postpaid, 50c. complete, except clip.

Catalog On Request

Ero Manufacturing Co.
914 Jackson Boulevard, Chicago, Ill.

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Don't Take Chances With Inferior Engine Oils—

If you use "cheap," inefficient lubricating oils, you not only damage your motor, but increase the cost of operating your machine.

The best oil costs but a trifle more than the "ordinary" kind and you get more power, added mileage and freedom from soot deposits. Therefore, it is a wise economy to use—

HARRIS
TRADE MARK REG. U.S. PAT. OFF.
OILS

We've been making high-grade cylinder lubricants for over 25 years. We were manufacturing the very best lubricants long, long before the inception of the motorcycle. Therefore, we "know how"—we know a little more about the lubricating question than the manufacturers who have only recently entered the field.

We use, as a basis, the finest Pennsylvania crude stock. We test our product during every step in manufacture.

We do not make a large quantity of oil—but prefer to devote our attention to making HARRIS OILS *right!* We give personal attention to the production of our special motorcycle oil.

HARRIS OILS for motorcycle use are positively the best—QUALITY lubricants that make the machine work as smooth as silk. Here's an oil that will increase engine efficiency and decrease cost, because—

A Little Goes A Long Way And Every Drop Counts.

Ask Your Supply Man—or get it from us. Write for information.

A. W. HARRIS OIL COMPANY

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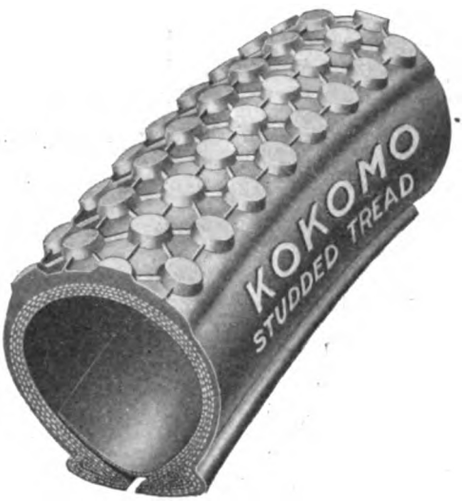

Do You Get Road Mileage or Paper Mileage From Your Tires?

In selecting your tires do not let the so-called "guarantee" affect your decision. Your guarantee avails you nothing if the quality of makeup prohibits the perfect service which you should get from your tires.

Kokomo Tires

represent the highest achievement in tire construction. Sixteen years of tire manufacturing experience are back of them, and the best, and only the best, of material and workmanship go into their makeup. The result, proven by many tests, is that Kokomo tires are Economical—Efficient—Enduring.

Write for our booklet.

KOKOMO RUBBER CO.

KOKOMO, IND.

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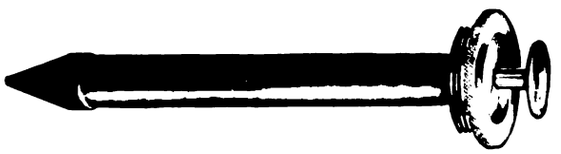
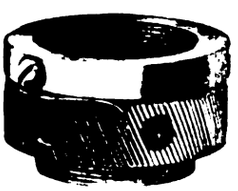
TANK CAP, GAS AND OIL GUN



Fits the gasoline or oil tank and is always ready for use. A great convenience to the Motorcyclist for priming, lubricating and cleaning machine. Made for all standard makes of motorcycles. Specify make of machine when ordering. **Price, each, $0.75.**

AUXILIARY AIR VALVE

Adds to Your Power



Increases Your Speed Saves Gas

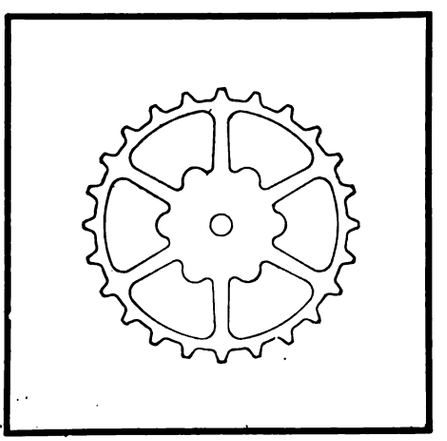
To apply Auxiliary Air Valve.—Remove air intake from the Carbureter and put the Auxiliary Air Valve in its place. Then screw Carbureter air intake into the Auxiliary Air Valve. Made for the Heitger, Schebler and Breeze Carbureters. Price, EACH, $1.50. OUR 1913 Catalog will interest you. In it will be found the latest and best in Motorcycle Accessories listed at attractive prices. Write for one today.

Dealers and Jobbers quoted on application.

W. D. ANDREWS

632-634 Main Street Buffalo, N. Y.

SPROCKETS



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Cleveland, Ohio

It Laughs at Water, Mud, Heat and Cold. Does Yours?

Heat or cold—rain or shine—cannot injure any "Wetprufe" motorcycle belt. We guarantee it.

No "Wetprufe" can crack or open at the laps or plies. Guaranteed again.

Be protected. Get your money's worth. Demand the only motorcycle belt with a guarantee—"Wetprufe."

Your dealer can supply you with a "Wetprufe" belt. Additional "Wetprufe" facts if you will write us

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H. T. ROBERTS, Selling Agent, Railway Exchange Building, Chicago

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ECLIPSE

The Brake You Can Trust

THE unexpected emergencies often met with upon the road demand instant action. Insure your safety and the safety of others by equipping with "THE BRAKE YOU CAN TRUST," the ECLIPSE Perfection Multiple Disc Brake, the most positive motorcycle brake built. It combines the unerring accuracy of a watch with the grip of a bull dog.

This brake is different in design from previous Eclipse Brakes, in fact it is different from any other brake yet made.

The Brake operates on the multiple-disc idea, similar to the Eclipse clutch. The discs are mounted on one side of the hub, instead of inside it. There are six discs 5¼" in diameter.

These give immense braking power, as there are more than 100 square inches of braking surface.

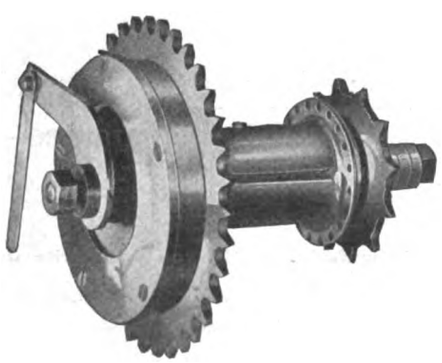
Extreme simplicity is a characteristic of this new brake. It has a very small number of parts, and adjustments are conspicuous by their total absence.

The bearings contain ⅜-inch balls. Lubrication is a matter that will require little attention, for the hub can be packed with hard oil at the start of the season and this supply will last the entire year.

The great working surface and simplicity make this brake fine for heavy service, such as tandem or sidecar work. Big 7 h. p. twins with two riders can be brought to an abrupt halt from fair speed without effort.

Manufacturers have recognized the desirability of the ECLIPSE Perfection Brake—as you will note from their 1913 specifications.

Why say more?



ECLIPSE MACHINE COMPANY

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ECLIPSE

The Clutch of a Thousand Speeds

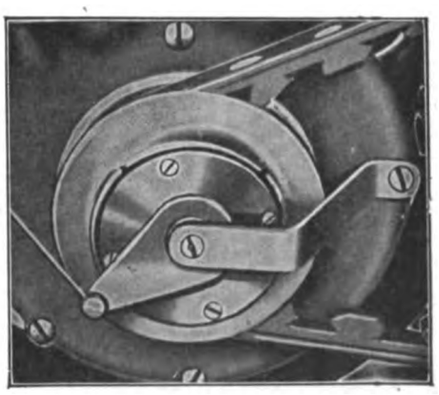
"—— AND THE ECLIPSE FREE ENGINE CLUTCH"

On how many 1913 specifications have you seen these words prominently displayed?

The year 1913 will be a "large" year for motorcycles. Just as popular as was the "bike" five or six years ago, will the motorcycle become in 1913.

And why? Mainly because the ECLIPSE FREE ENGINE PULLEY AND MULTIPLE DISC CLUTCH has eliminated from the motorcycle that one last objectionable feature—uncertainty of control. With the ECLIPSE, the rider can get automobile service from his motorcycle. He can stop, while the motor is still running. He can start without violent pedalling for half a block, or running alongside. He can, by the aid of the ECLIPSE, "make" hills absolutely impossible without it. He can glide through the worst roads, shifting sand, treacherous mud, deep snow—easily and surely. In traffic riding, its many discs insure the right speed at the right time. The rider can slow down to a walk and then quickly dart into an opening. THE ECLIPSE BELONGS ON YOUR MOTORCYCLE.

If it isn't—why not?



ELMIRA
NEW YORK

H. T. ROBERTS, *Selling Agent*
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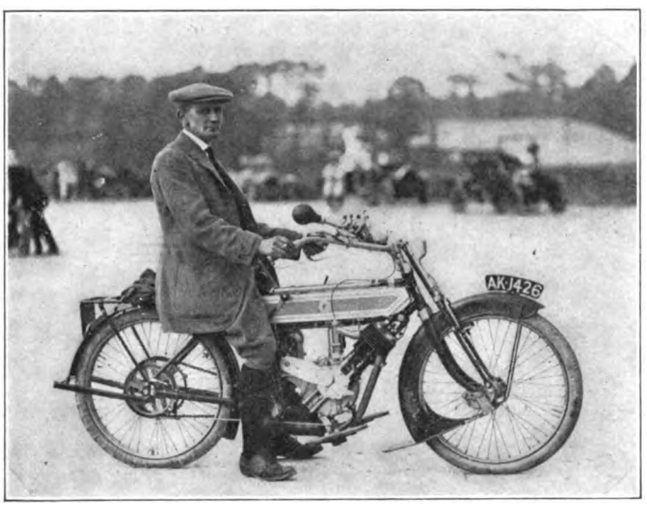
RESULTS
COUNT
RENOLD CHAINS
PRODUCE RESULTS



Mr. W. Pratt on the PHELON & MOORE.

One of the best known men in the English Motorcycle World, Director of PHELON & MOORE, and a great competition rider. He has won the SIX-DAY TRIALS for the last four years, the SCOTTISH TRIALS, 1912 (Trade Rider), LONDON-EDINBURGH RUN and many others.

Mr. Pratt has always stated that

"RENOLD CHAINS ARE THE ONLY KIND WORTH HAVING"

ENGLISH MOTORCYCLE MAKERS
endorse this by their actions.
At Olympia, London, 35 different makes were fitted with RENOLD CHAINS or over 90% of the CHAIN-DRIVEN MACHINES of the show.

Send for "HINTS ON CHAIN DRIVES FOR MOTORCYCLISTS"; it is interesting and instructive.

Wide Awake Dealers
are stocking
RENOLD CHAINS
Are You?

RENOLD for RELIABILITY

Sole American Agents,

PETER A. FRASSE & CO. INC.

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Standard

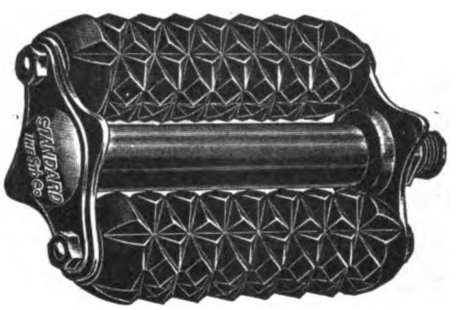
In Name and Quality

For **STANDARD** products, the manufacturers will accept no substitute. They know they are safe in buying goods that are **STANDARD** both in name and quality.

The unexampled reputation of

Diamond "E" Spokes

for strength, temper and all-around durability is based on solid merit. The manufacturer unhesitatingly specifies Diamond "E" Spokes because they are entitled to the highest consideration due to their proven merit.



STANDARD PEDAL No. 3

For pedal safety and footboard ease, **STANDARD No. 3 PEDAL** fills the rider's wants to perfection.

The deeply corrugated, broad rubbers insure maximum comfort and keep the feet in proper position. The majority of motorcycle manufacturers have consistently specified **STANDARD PEDALS** for many years, and from all indications, 1913 will emphatically be no exception.

For the manufacturer who wants to assure perfect service as far as spokes and pedals are concerned, **STANDARD** products are eminently fitted.

THE STANDARD COMPANY
TORRINGTON CONNECTICUT

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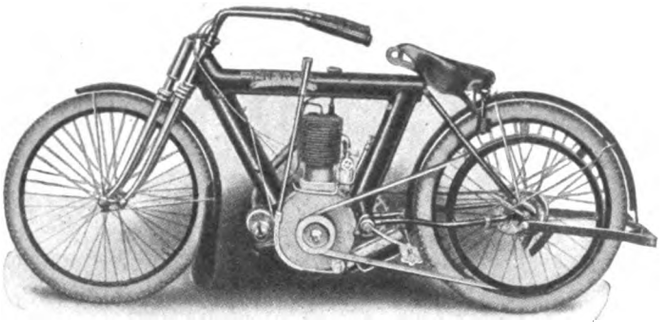
FOR $165



The Pierce Motorcycle

5-36 Model, Single Cylinder

Manufactured by The Pierce Cycle Co., Buffalo, N. Y.

A rare opportunity to secure one of these notable machines at a big reduction. A limited number are now offered at the exceptional price of $165.

5 Horsepower, 36 cubic inches, Belt drive. Equipped with Herz high tension magneto; Breeze new style, double adjustment carbureter; double spring fork; U. S. Tires, 2½ inch, studded; free engine; hand grip controls.

The Pierce engine is remarkable for its power, smooth running and reliability. The long-stroke motor combined with the fair-sized bore makes the Pierce a splendid hill-climber. Free engine pulley, operated by convenient hand lever, is invaluable to the rider in traffic, on steep hills or rough roads and for starting on up-grades.

NOTE: We are able to offer a limited number of these machines to dealers.

F. A. BAKER & CO., 10 WARREN STREET, NEW YORK

Uptown Branch, 208-10-12 West 75th Street, near Broadway

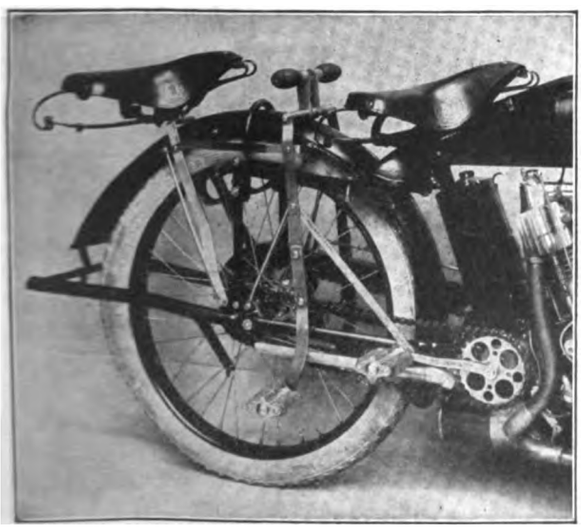
Examine our line of Motorcycle Accessories. Space 708, Grand Central Palace Motorcycle Show

BU-REM MOTORCYCLE SPECIALTIES

The Most Practical and Most Up-to-Date Motorcycle Appliances on the Market

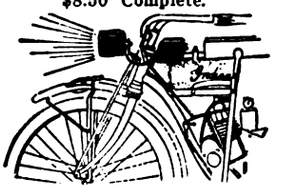
Note the Compactness and Simplicity of our Specialties. They are made to please.

Bu-Rem Tandem Attachment For 1913 INDIAN.
Price $15.00 Complete with Saddle.

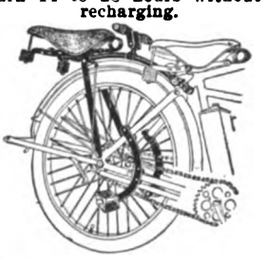


Distributors for THE SILENT INDIAN
Cincinnati and Vicinity

Bu-Rem Electric Light Outfit.
$8.50 Complete.

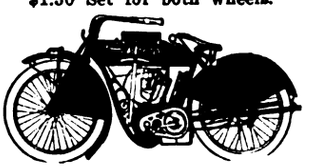


No Flame, No Smoke, Windproof. Will burn 14 to 28 hours without recharging.



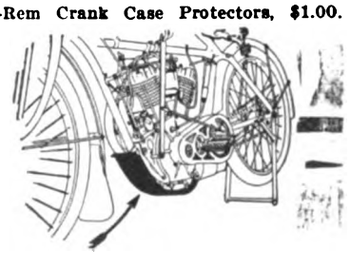
Bu-Rem Tandem Attachment.
Fits All Loop Frame INDIANS except 1913 Model. Price, less saddle, $12.00.

Bu-Rem Dust and Mud Shields.
$1.50 Set for both wheels.



Protect Rider and Machine. Save labor and inconvenience of cleaning.

Bu-Rem Crank Case Protectors, $1.00.



Protect Crank Case, Pet Cocks and Motor. Will fit all makes with Loop Frames.

The BUMILLER REMELIN COMPANY

Manufacturers—Jobbers—Dealers **Cincinnati, Ohio**

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WHY THEY BUY STANDARD FRAME PARTS

Buyers of all kinds of material prefer to transact business with well established concerns. This fact is true of individual consumers, as well as of quantity consumers.

Little do you care what a salesman says about quality, service or price, if the company making the product has no reputation for these things.

The Standard Welding Company stands pre-eminent in the motorcycle industry. Our proof of this statement is this fact:

That from May 1st, 1912, to June 30th, 1912, we received specifications equaling 83.9% of our total 1911 business. These specifications cover ***rims, pulley rims, mud guards, forksides, rear forks, rear stays, loop tubes, handle bars, seat posts, exhaust tubes*** *and* ***straight lengths of tubing.*** *The buyers of this material include manufacturers who will produce from May 1st, 1912, to April 30th, 1913, 100 to 25000 machines each.*

A company that can individually transform this tremendous amount of raw material into the finished product is the type of organization that you, whether manufacturer, jobber, dealer or rider, want to deal with.

The high reputation of the American-made motorcycle of today is due largely to the excellence of our material. Foreign manufacturers acknowledge American machines to be the strongest made. While we do not attempt to claim the whole compliment, we do claim, as manufacturers of over 75% of all frame tubing, rims and mud guards, that the pride which you are justified to have in your machines is due largely to the perfection of

"Standard" rims, "Standard" mud guards, "Standard" tubing. *Standard Welding products represent the "Utmost in Utility."*

THE STANDARD WELDING CO.

CLEVELAND, O.

OFFICES IN

NEW YORK CHICAGO DETROIT

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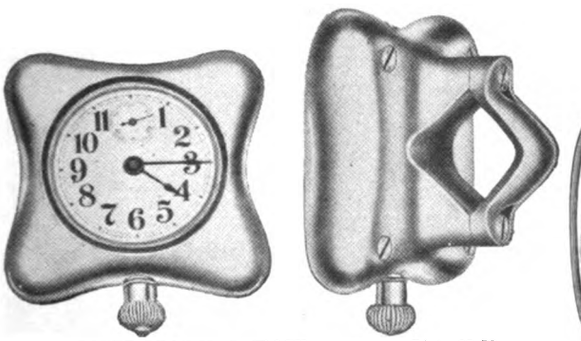

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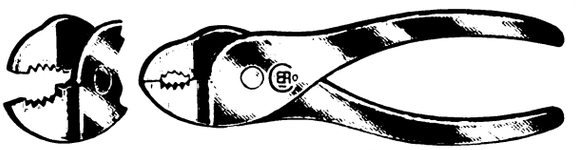

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THE BECKLEY-RALSTON CO., CHICAGO

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"A FEW CENTS IN THE LOCK IS WORTH FIFTY IN THE REWARD"

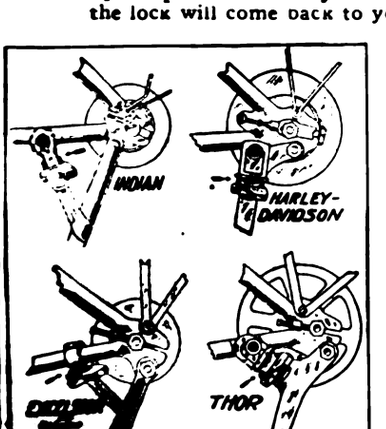
"Motorcyclist's Book of Proverbs"

¶ Keep your name off the list of "Stolen Motorcycles." Almost daily you see mention of another machine stolen. Laws against motorcycle thieves are weak and the only way to thoroughly protect yourself is by locking your machine so it cannot be moved except by YOU—and the only lock that prevents machine being moved and that cannot be picked, pried or cut, is the "SABO."

¶ You can safely leave your motorcycle anywhere if you have a Sabo lock. It fits tight to the frame—cannot be pried off—there are no chains to be cut by pliers. You've got the goat of every motorcycling "Jimmy Valentine" that wants a ride on your gasoline. The lock is scarcely noticeable. The would-be thief will perhaps not see it; will walk up to the machine acting as if it were his own. But when he tries to move it from the stand he'll learn "Sabo's on the Job."

¶ It's made of bronze metal, neat, simple, strong—fits your smallest pocket—lasts forever. The stand is locked securely to the frame—the machine cannot be moved while the lock is there—no danger of breaking spokes or chain by forgetting the lock and pushing machine from stand. It is impossible to wheel or ride the machine away.

¶ We prefer to have you buy from your dealer, but, if he does not have it, send this order blank with $1.25 and the lock will come back to you, satisfaction guaranteed, prepaid, by return mail.



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List this in your 1913 Catalog. Cuts, literature and advertising matter furnished. Write for proposition.

DEALERS

Stock this lock. Showing it means selling it. We refer inquiries, furnish cuts, literature, etc. Send for proposition.

Aermore Manufacturing Company

Department 51
1536 Michigan Boulevard
CHICAGO
ILL.

Aermore Manufacturing Co.
Dept. 51, 1536 Michigan Blvd., Chicago, Ill.

Enclosed find $1.25 for a Sabo Motorcycle Lock for .....machine.

NAME.....

ADDRESS.....

DEALER'S NAME.....

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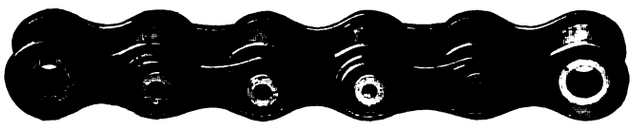

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Service Chain has been adopted by all High Grade Makers—Why?—An investigation will show you

DUOKWORTH CHAIN & MFG. CO., Springfield, Mass.

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OUR BIG SUPPLY CATALOG —the largest of its kind ever published, will be mailed to any address on request. Write today.

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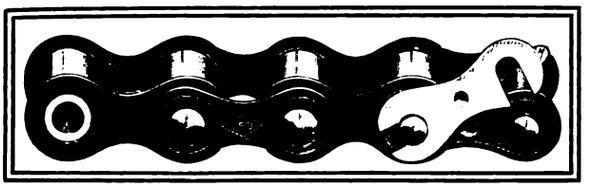
No. 150 DIAMOND CHAIN



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Because it is known to be dependable under all conditions—this chain is the particular choice of motorcycle riders who use their machines day after day, in all kinds of weather.

The transmission of your motorcycle is one of its most important parts—be sure you have the best.

LOOK FOR THIS TRADE ◇ MARK ON EVERY LINK

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CHAIN MANUFACTURERS FOR 22 YEARS

CAPACITY, 8,000,000 FEET PER YEAR

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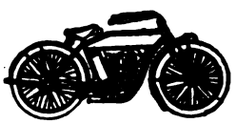

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AT 1/4 to 1/3 THE PRICE WHEN NEW

We specialize in selling standard makes of motorcycles and automobiles in slightly used condition.

Large assortment of used motorcycles, single, two and four cylinders; chain, belt or shaft driven—Indian, Pierce, R-S, Excelsior, Curtiss, F. N., N. S. U., M. M., Harley-Davidson, Thor, New Era, Merkel and other high-grade makes from $35 up.

Practically all styles and makes of automobiles at $100 up.
We guarantee each purchase to be in perfect running condition.

Agents wanted everywhere. *Write for price lists and descriptions.*

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FEDERAL MOTORCYCLE TIRES "EXTRA SERVICE"

Federal Rubber Manufacturing Co. - Milwaukee

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TIRE PROTECTION WITH A GUARANTEE

No longer is it necessary for motorcyclists to worry about PUNCTURES, BLOW-OUTS, GLASS CUTS, SKIDDING and unnecessary tire expense, which heretofore has MARRED the pleasure of all motoring—"BRICTSON" DETACHABLE TREADS will eliminate all this.

10,000 Mile Guarantee

SEND FOR COPY OF SAME

Yes, we will give you a 10,000 mile written guarantee with every "BRICTSON" MOTORCYCLE TREAD on a daily mileage basis of twenty-five miles per day. Can you get this kind of a guarantee on your rubber tires? Figure this guarantee out and you will see that it covers a period of 400 days.

Design and Construction

Made of select, specially prepared chrome tanned leather, soft and pliable, which gives with the "BRICTSON" the full benefit of the pneumatic tire. Studded on the surface with small neat-looking steel studs, designed to give perfect traction as well as a perfect "non-skid." There are layers of the best tire fabric between the layers of leather, which add strength and keep the tread from stretching. In addition to all these important features, the "BRICTSON" is lined perfectly smooth on the inside so there are no rivets or studs in contact with the rubber casing, making it impossible for the tread to injure the casing in any way.

The "BRICTSON" is the only scientifically constructed tread in that it CANNOT slip or slide on the rubber casing in ANY direction, owing to the patented, scientific method of fastening. It is held in position on the rubber casing by equal tension from all points of the circle, and for this reason may be adjusted to PERFECTLY fit the casing over which it is applied, which CANNOT be accomplished with any other method of fastening, and also envelops the entire casing, excluding sand, stones, mud, or even water from coming in contact with the rubber casing.

The "BRICTSON" is the ONLY TREAD THAT HAS PERFECT TENSION ADJUSTMENT FROM ALL POINTS OF THE CIRCLE, which other tread manufacturers have tried to imitate with metal contrivances that only detract from the appearance of the tread, add weight, and destroy the pneumatic feature, but still do not accomplish the desired result.

The "Brictson" Exclusive Patented Way of Fastening

The "BRICTSON" has no HOOPS, HOOKS, BUCKLES, SPRINGS, or any other unnecessary metal contrivances to add weight, break or eat into the rubber casing; neither is it cemented, laced, vulcanized, riveted or fastened to the rubber casing in any way—NATURAL INFLATION OF THE TIRE DOES THE TRICK—Simply clamped between the head of casing and rim—strictly Quick Detachable.

PRICES: One-half the price of a rubber casing and guaranteed three times as long. Compare the following prices:

26 x 2¼ $6.05	28 x 2½ $7.43	29 x 2¾ $8.15
26 x 2½ 6.60	28 x 2¾ 7.70	29 x 3 ..... 8.25
28 x 2¼ 7.15	28 x 3 ..... 7.98	

Other sizes on application.

Ask Your Dealer for "Brictson" Detachable Treads

Ask the best dealer in your town to show you the famous "BRICTSON" Guaranteed Detachable Tread. If for any reason he cannot supply you, fill out the attached ORDER BLANK, pin your check to same, mail it, and I will ship you the treads on TEN DAYS' FREE TRIAL, and if you don't find them perfectly satisfactory within 10 days from receipt of treads, return them and I will cheerfully refund your money. Remember, I take all the risk.

O. A. BRICTSON, President

The Brictson Mfg. Co.

2513 Brictson Building

Brookings, South Dakota

DEALER'S COUPON

O. A. Brictson,
President,
The Brictson Mfg. Co.,
2513 Brictson Bldg.,
Brookings, So. Dak.

Without obligation on my part, send me your Dealer's Prices Catalogue and full particulars.

Name.....

City..... State.....

County.....

MOTORIST'S COUPON ORDER BLANK

O. A. Brictson,
President,
The Brictson Mfg. Co.,
2513 Brictson Bldg.,
Brookings, So. Dak.

Enclosed please find.....

in the sum of $.....for which ship by ex. or frt.....(quantity).....Brictson Motorcycle Treads, size.....with the understanding if they are not perfectly satisfactory I may return them within 10 days from receipt of shipment and you will refund my money.

Signed.....

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AURORA BRAND

Motorcycle Clothing

Look for this stamp on your motorcycle clothing. It is a guarantee of the highest quality obtainable. Fit, style, service and satisfaction are contained in every garment turned out by us. AURORA BRAND MOTORCYCLE CLOTHING has been conceded for years to be the acme of perfection, and although imitators have been numerous, none have been able to approximate the absolute "alrightness" of AURORA BRAND clothing. That is due to our policy of

Strength in every fibre
Quality in every thread

We make suits to your individual measure. We make the popular ladies' motorcycle dress, with detachable front panel. We make dusters for motorcyclists and automobilists. We make, in fact, everything in the line of wearing apparel for the motorcyclist. We solicit correspondence with club secretaries. Our specialty is outfitting entire clubs, of which business we have practically a monopoly in this country. We will send you our catalog on request.

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On the Belt You Buy. It Means:

1. *Guaranteed Stock* and *Construction.*
2. Three times the strength of ordinary leather.
3. An end to stretching troubles. It is *guaranteed not to stretch.*

We make White Strip Stretchless Flat Belts, White Strip Stretchless V-Belts, Sea Lion Waterproof Flat Belts, Chibeco Pulley Laggings, Sea Lion Waterproof Cement and Sea Lion Belt Dressing.

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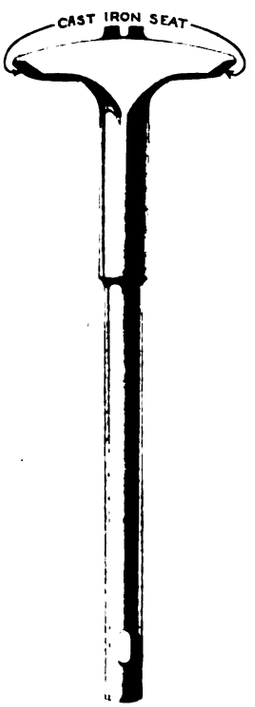
Chicago Belting Company
124 N. Green Street
Chicago, Ill.

Electric Welding is the Scientific Process for Making Valve Stems



Valve stems must be made with heads that will not pit or warp, in order to insure perfect compression and the full power of the motor.

Breakage must be guarded against by material that is tough enough to stand the strain of the terrific heat and the continual battering.

No one material can meet both of these demands.

By electric welding we unite a head of nickel steel to a stem of tough carbon steel. To the head we then weld —by the oxy-acetylene process—a seat of cast iron, thus securing a valve, each part of which is scientifically adapted to the work it has to do.

The majority of motorcycle makers and thousands of motorcycle users have put this valve to the test and found it right.

Send us your blue prints for quotations.

The Electric Welding Products Co.
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Fourteen Thousand Riders Read

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OUR CLASSIFIED ADVERTISING PAGE

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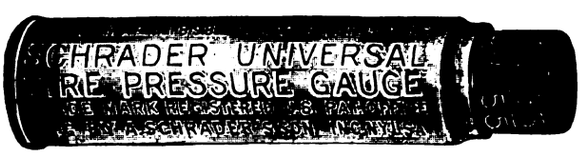
A very large percentage of all punctures and blow-outs occur from improper tire inflation.

WOULD YOU PAY $1.00 TO OVERCOME

delays, difficulties and expense resulting from these misfortunes?

Schrader Universal Tire Pressure Gauge



(Made under patent dated March 1, 1898.)

Accurately registers at all times the exact air pressure in tires.

Simply hold gauge to tire valve for a second and recording sleeve will indicate air pressure and remain fixed until pushed back into place by the finger.

Carried easily in vest or change pocket, being only 2½" long. So simply constructed as to almost never become out of order, and if it does go wrong it will immediately tell by the action of the indicating sleeve that it needs repairs. Leather case comes with it.

PRICE $1.00 EACH

Guaranteed Simple and Absolutely Accurate

Can be obtained from all tire manufacturers, jobbers and dealers, or

A. SCHRADER'S SON, Inc.
28-30-32-33 Rose Street NEW YORK CITY

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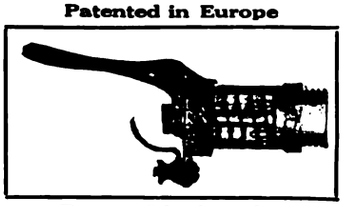
Patented in Europe



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SPEED With Economy

The M&M requires a ¼" pipe tap to insert into manifold. It is made with six portholes, which when open, admits auxiliary air into the manifold.

The M&M Economizer will save you from 40 to 50% of **gasoline**, and will give you 20% more **speed** and **power** with less gasoline and less **carbon**.

It is the only known **carbureter adjuster** on the market. Do not throw your old carbureter away, before you have tried our device. **THEN NOTICE RESULTS.**

It is great for **priming the engine.** When going down grades, it cuts off all **gasoline** and **ignition.**

PRICE $1.25 PREPAID.

The M&M is a nickel-plated device, highly polished, and it is positively air-tight when closed.

Guaranteed to give satisfactory results. Money refunded in 30 days if unsatisfactory.

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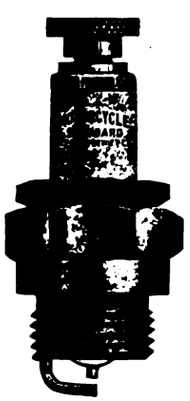
Send for full information and our latest catalogue.

MOLLER BROTHERS CONTROLLER AND ECONOMIZER CO.

AMERICAN OFFICES, 700 Betz Building **PHILADELPHIA, PA.**

A Porcelain Motorcycle Spark Plug!



$1.00

Made for Motorcycle Service Only

No need any longer to use the inferior mica plug or a makeshift porcelain. This new Motorcycle Standard Spark Plug, built by the greatest manufacturer of spark plugs in the world, gives motorcycle riders a plug with a porcelain insulator that is faultless, defies heat and insures perfect ignition.

Motorcycle Standard Spark Plug

Leading motorcycle engineers of the country have pronounced this plug right in principle and construction. The length over all is 2¼"—just the right size for the limited dimensions available for a spark plug in the motorcycle motor. The porcelain is made in our own potteries. Heat cannot crack it. The bushings are case hardened. The terminal nut will take ordinary wire, ring, or special "Indian" terminal.

Comes in half-inch or metric sizes. Your dealer will supply you —or sent prepaid on receipt of price and size.

PRICE—$1.00 per plug

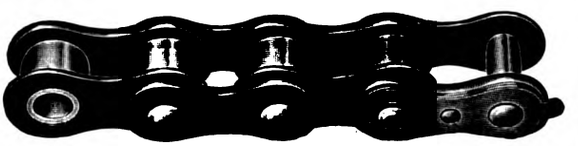
Our guarantee—"Your money back or a new plug, unless you are absolutely satisfied."

JEFFERY-DEWITT COMPANY

55 Butler Ave. **Detroit, Mich.**

Your Motorcycle

should be equipped with chains that will stand up under all conditions. You can depend upon the "Whitney" Chain whether in rain, mud, sleet or snow; they are always on the job. They give the maximum amount of service because they are made by men with years of experience in chain making.



When making replacements insist on a "Whitney."

"Whitney" Chains Are Built for Strains

The Whitney Mfg. Co.

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AND WATCH FOR THE ANNOUNCEMENT SOON OF THE

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PLEASURE AND COMMERCIAL SIDECARS

A Revelation in Design, Finish and Construction

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Every automobile owner and every dealer has been interested in watching our National advertising of Tirenew. The big demand it has created means profit to the dealer.

TRADE MARK
TIRENEW
Prevents Tire Decay

is a liquid, unvulcanized rubber compound made with a base of pure gum—waterproofs and protects from oil, moisture, sun and air. *Makes Tires Look Like New.* There are imitations which paint but don't protect—insist on Tirenew. Send $1.00 for a can—enough to Tirenew 8 tires. Ask about our other products:

Narco Rubber Reviver	Non-inflammable Rubber Cement	Leakanot, a liquid, rubber, waterproofing dressing for anything leather.

NATIONAL RUBBER COMPANY, 4438 Papin St., St. Louis, Mo.

"OMC"

Motorcycle Supplies

If you want to secure "Gulliver" quality at "Lilliput" prices—or in other words—a lot of value at small cost, send for our catalog of OMC motorcycle supplies. Everything for the dealer and rider. Don't fail to get our catalog.

OBERWEGNER MOTOR CO.
TOLEDO, O.

Start Your Engine Easily
Even on the Coldest Day

When you have the proper amount of oil in your engine you can start and pedal with the utmost ease. Even on the coldest day.

Only with the Simplex Oil Gauge can you tell the exact amount of oil that is in your engine.

Fits all machines that have no oil gauge on the crankcase. Easily attached in a few minutes. Riders often ruin their engine cylinder because of insufficient oil. With the Simplex you can run thousands of miles without taking down your engine to remove carbon, because it keeps oil at the right level.

THE SIMPLEX OIL GAUGE.
"In sight and out of the way."

The Simplex is handsomely nickelplated—a little larger than a silver dollar and is only ⅝" thick.

The Simplex keeps clean. It prevents your plugs from fouling—saves its cost in oil in a few weeks.

Fits Harley-Davidson, Excelsior, Thor, Flanders, Etc.

Order One Today—$1.50, Postpaid.

Without any obligation or charge on your part, you can try the Simplex Oil Gauge for 30 days. If it is not O. K. you can return it and your money will be refunded. Nothing could be more fair.

Order today. Mention your dealer and name of machine. Circular free.

THE BUCK SALES COMPANY, 211 N. 12th Street, St. Louis, Mo.

The Federation
of
American Motorcyclists

Governs and administers the sport of Motorcycle racing and other competitions in which motorcycles engage; it defends and protects the rights of motorcyclists and facilitates touring; it encuorages the use of motorcycles and promotes the general interests of motorcycling.

For F. A. M. Booklet and all information write

E. M. ESTABROOK
Chairman Membership Committee F. A. M. Bangor, Maine

$1.00

buys you the best spark plug obtainable irrespective of price

—"Best Plug" because the Bosch Plug, under the severest tests, has proven to be the most enduring spark plug made.

In the 14 important automobile road races of 1912, Bosch Plugs were on every winner—14 long, trying contests, 14 proofs of Bosch Plug Superiority.

The latest Bosch Motorcycle Spark Plug is similar to the famous Bosch Automobile Plug—just as efficient, just as reliable, only reduced in size.

Don't entertain inferior results or misleading sales argument; specify Bosch Plugs, buy Bosch Plugs, they are

"As good as Bosch Magnetos"

Write for "Locating the Spark Plug" It's interesting and educational.

BOSCH MAGNETO COMPANY
223-225 West 46th St. New York
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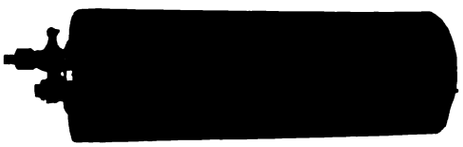
1913 Carbo-Light Tanks Now Ready for Distribution



In keeping apace with the times and the needs of the Motorcyclists we have brought out a new tank, which far excels all previous models. Better in design, construction and service. Five cents is all it costs you for recharge. No exchange or refilling station required. Can be charged by the user in two minutes' time. Can also be installed on vehicles giving twenty-five hours' life for two lamps. We furnish carriage lamps at cost.

If your dealer does not handle the Carbo-Light write us direct for prices on single tanks or agency terms. Good exclusive selling territory to the right kind of agents. Use a Carbo-Light and never go home in the dark.

Distributors

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E. A. Williams Co., Minneapolis, Minn.
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Motorcycle Accessories Co., St. Paul, Minn.
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Post & Lester Co., Hartford, Conn.
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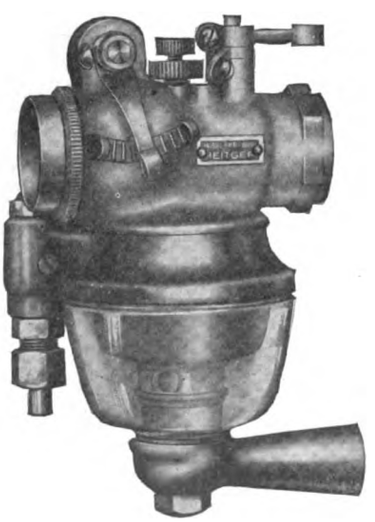
Carbo-Light Sales Company **Anderson, Ind.**

HEITGER MODEL K—1913

Made in ¾″ and 1″ pipe threads, and special threads for Spacke, Pope, H-D, Excelsior, Merkel, and Emblem, same list, ¾″, $10.00; 1″, $10.50. Where special fittings are needed, extra price. Has new air valve, no friction, or stems to wear, causing air leakage in low; air adjusted instantly from saddle, for starting, etc. Needs no priming in coldest weather. Furnished with glass or metal bowls, same price, the two being interchangeable.



HALF SIZE

Has new gasoline feed, two jets, one for low, one for high, with separate adjustments, giving minimum and maximum speeds. Owing to air valve action, etc., gives greatest possible speed to motor on minimum gasoline consumption. Light in weight, castings of aluminum, polished nickel plate.

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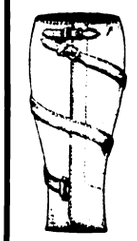

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Halco Leggings are popular because they entirely satisfy. Comfortable and snug as an old glove. Wear like iron. Keep their stylish shape indefinitely.

A style for every need. A price for every purse.

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Motorcycle Chimes

Every motorcyclist, no matter what make of machine he rides, should have a Trinity Chimes. The tones of the four tubes blended together give a mellow sound. Its pleasant warning will avert many an accident. It is easily attached and easy to operate. Its upkeep is nothing.

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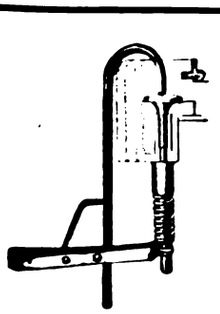

INSURE A GOOD COMPRESSION—ALWAYS

It is important, if you want all the power your motor generates, to keep your valves in condition. An occasional grinding keeps your compression at its most effective point. For cleaning and grinding your valves the

Simplex Exhaust Valve Remover

is the only tool that can be made to readily fit all machines. It is the most convenient little appliance on the market—a repair shop necessity. **PRICE 50c.**

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Easily carried, as the small bundles they make in their canvas bags take so little room that they could be carried in your pocket, when not in use, without inconvenience.

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Why don't you "Standardize"?

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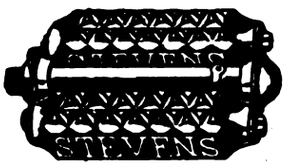

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The machine that's done more to popularize motorcycle riding than any other is

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J. W. Grady & Co.

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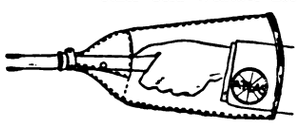

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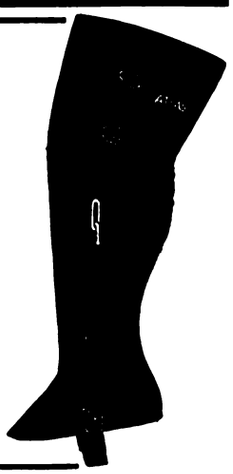

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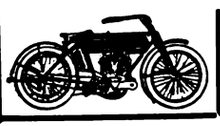

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After Christmas we find that our motorcycle department has left the following high-grade used motorcycles: Indians, 1912 and 1911, in single and twin cylinders; Excelsior, Reading-Standards, 1912; 4-cylinder Pierces and Hendersons; 1912 Yales and other makes. These motorcycles we want to close out before inventory between now and February 1. NO REASONABLE OFFER WILL BE REFUSED. If interested, call now and select the one you want and we will put it away for you until spring, if you so desire, with no storage or any other charges attached.

Complete Line of Motorcycle Supplies

Write for Complete List

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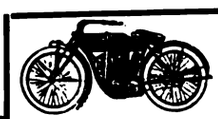

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Applied in a minute, self vulcanizing. Dealers, this is something for you, get our proposition—it is as good as our Tape. 50c per Roll—send for some today and save your belt. State width.

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Weed Anti-Skid Motorcycle Chains

With the "Creeping Grip"

Give perfect traction, *prevent skidding and slipping.* Make motorcycling absolutely safe—sixty miles an hour—with perfect safety—make *all roads good roads.*

The continuous "creeping" prevents injury to the tires and keeps them clean, minimizing the chances of punctures.

The secret process of hardening the the cross chains, just adopted, gives extreme lasting qualities.

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Order them from your dealer or write us direct for full particulars.

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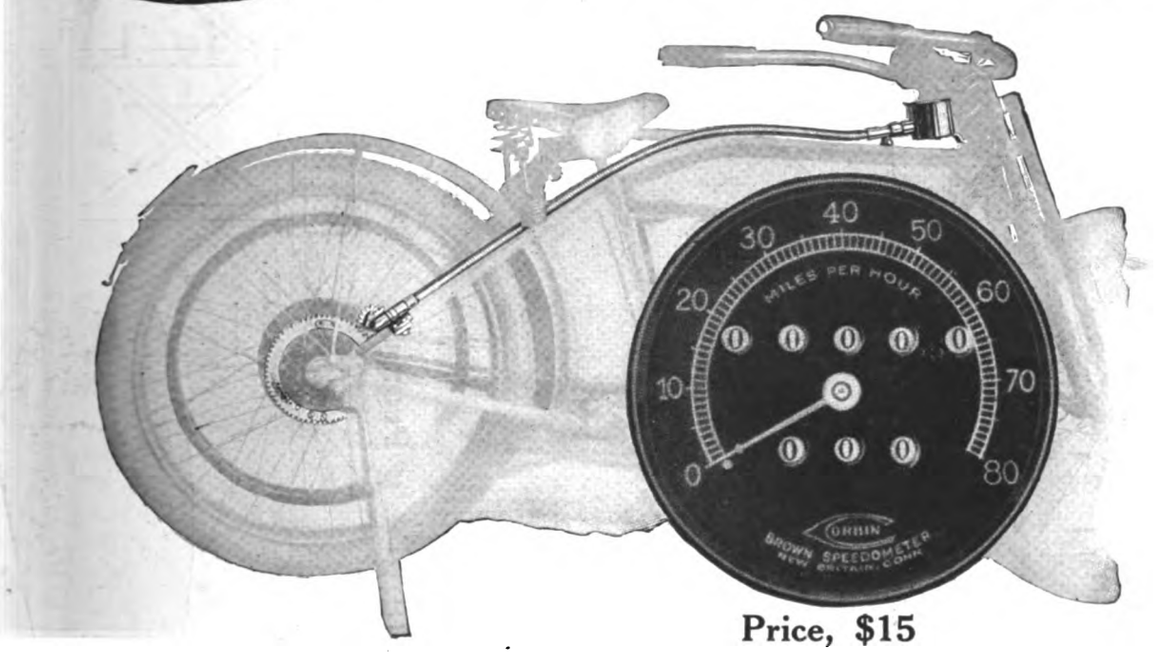
CORBIN-BROWN SPEEDOMETER



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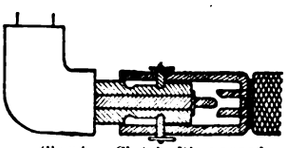
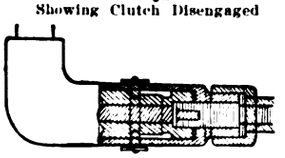
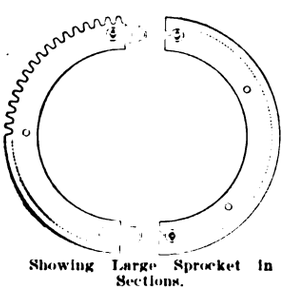
The Corbin-Brown REAR DRIVING ATTACHMENT is so constructed that the speedometer may be instantly DISENGAGED from the driving sprocket. A slight pull of the cable does it. This is a distinct advantage and an entirely new feature applied to speedometer drives. As a result, there is no recording of mileage while motor is being tuned up on stand. False registration for the season is therefore prevented.

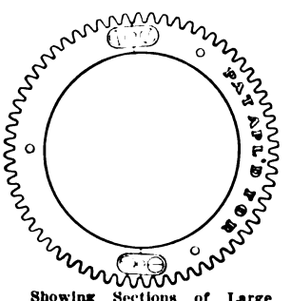
For the rear wheel the driving sprocket is made in two parts so that it may be easily slipped into place without disturbing even slightly the motorcycle's wheel or chain adjustment. These two parts are held securely together by clamps and to spokes of wheel by clips.

The Corbin-Brown can be equipped by any motorcycle dealer or repair shop.
When ordering speedometers, please give name of motorcycle and size of Tires.


Showing Clutch Disengaged


Showing Clutch Engaged


Showing Large Sprocket in Sections.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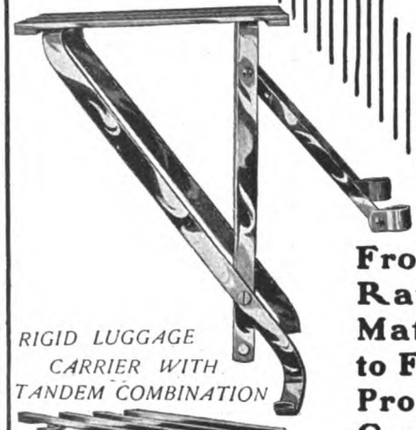
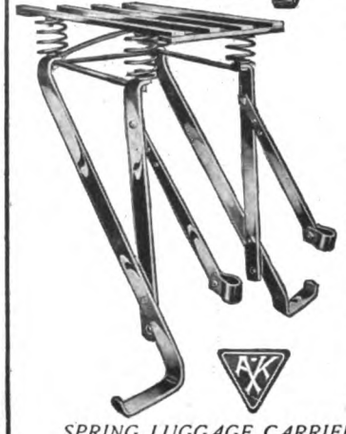


RIGID LUGGAGE CARRIER WITH TANDEM COMBINATION



SPRING LUGGAGE CARRIER WITH TANDEM COMBINATION

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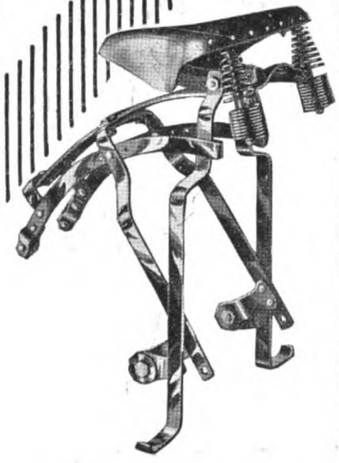
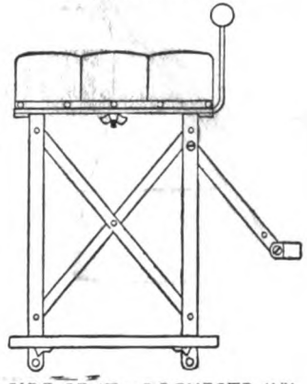


SIMPLEX SPRING TANDEM ATTACHMENT



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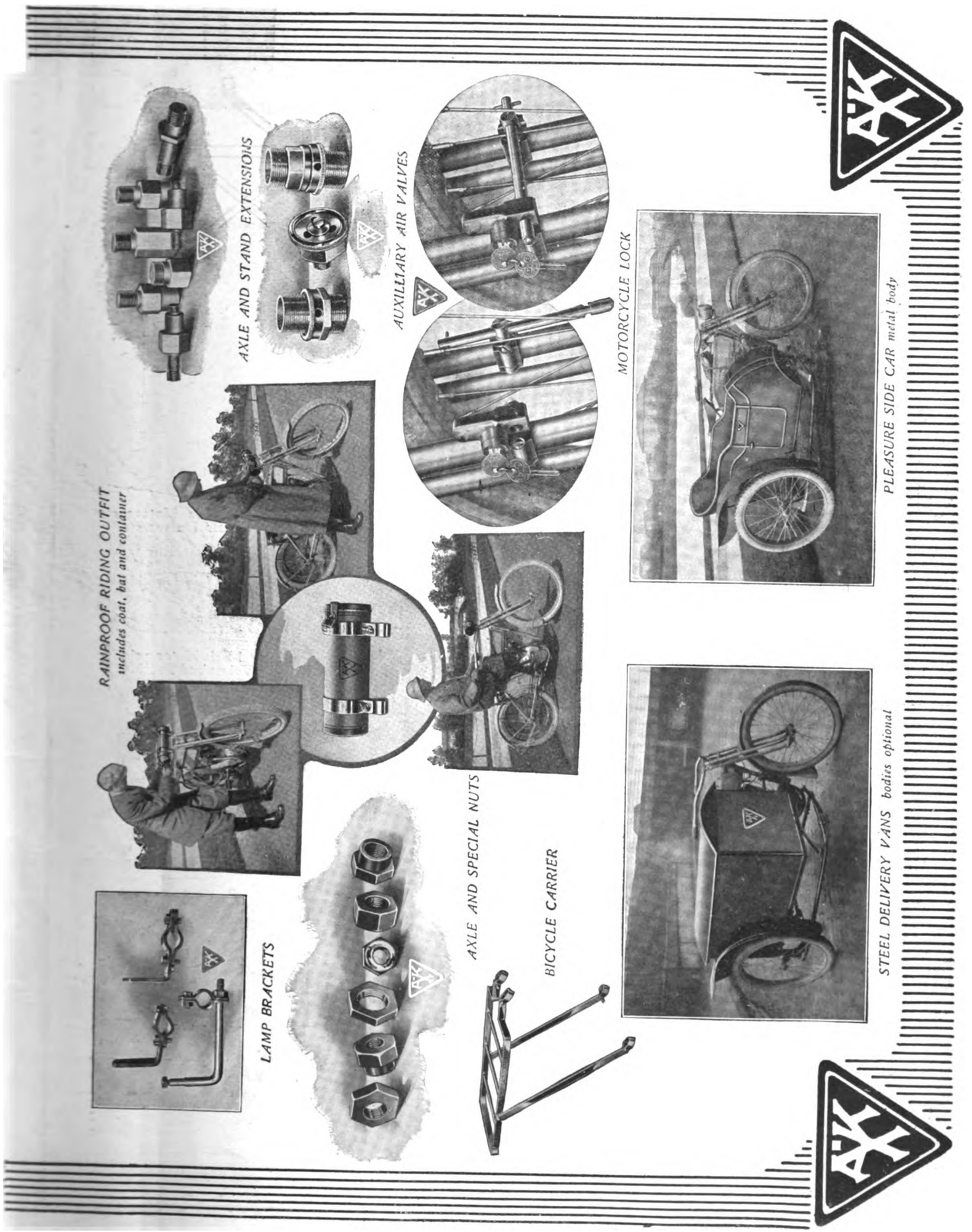

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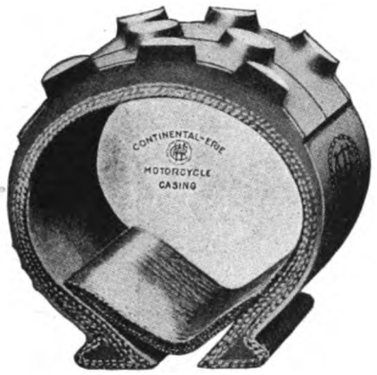
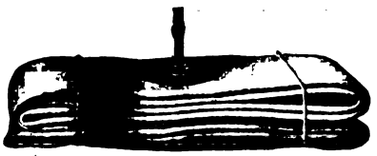
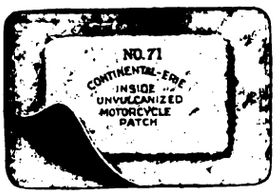
Woven Steel Reinforced Grip

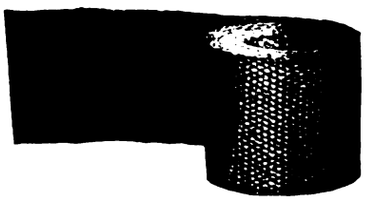




Continental-Erie Motorcycle Tubes



Continental-Erie Motorcycle Inside Unvulcanized Patch No. 71



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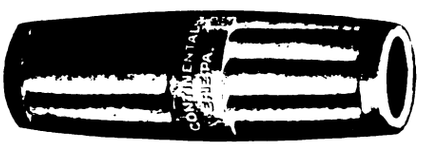
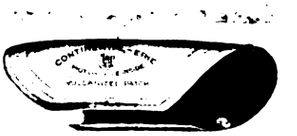
We will exhibit at Parlors 622 and 623, New Southern Hotel, February 3rd to 10th.

The New Southern Hotel is directly opposite the Manufacturers' Building, where the Motorcycle Show is to be held.

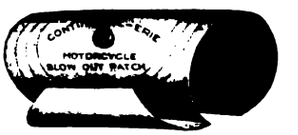
All Manufacturers, Jobbers and Dealers are cordially invited to visit our Headquarters and all Dealers visiting us, presenting their business cards and registering, will be presented with either a pair of our Woven Steel Reinforced Grips, or a roll of our Non-Slip-Lag.



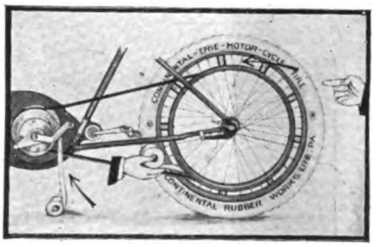
Continental-Erie Motorcycle Repair Sleeves.



Continental-Erie Motorcycle Inside Vulcanized Patch.



Continental-Erie Motorcycle Blow-Out Patches.



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Complete outfit, including two highly concentrated Tungsten Batteries, Switch, and in fact, everything necessary to install the outfit on your machine	6.50
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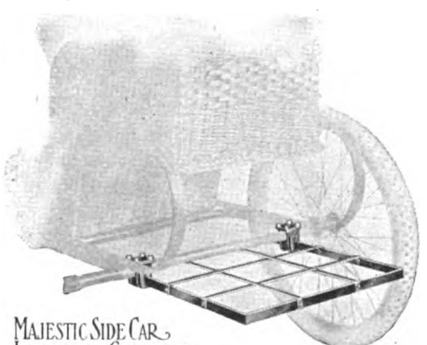
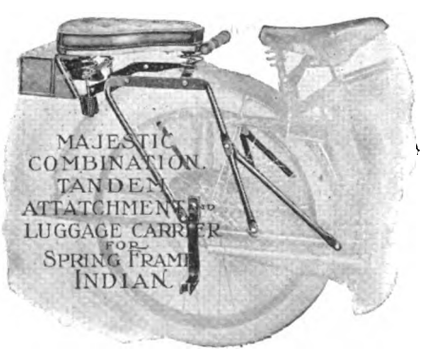
DE LUXE-AUTO TOP

This is the Finest Touring Car ever produced. The body is our Magnificent De Luxe model. The chassis extra heavy and double braced. Velvet 4-leaf springs. The Auto Top is of handsome weatherproof fabric, and folds down snugly when not in use. Detachable Side Curtains, Weatherproof Apron, and Floor Mat go with the car.



MAJESTIC SIDE CAR
LUGGAGE CARRIER
MAJESTIC MFG CO WORCESTER, MASS.

This Luggage Carrier fits any Majestic Car, and can be attached in a few minutes. It will carry a large suit case, is strong and durable, and is enameled to match chassis. It completes your Touring Outfit.



A SPLENDID COMBINATION is the Majestic Tandem Seat and Luggage Carrier for the

1913 Spring Frame Indian.

It serves both purposes perfectly; and provides a place for carrying the regular Indian Tool Bag.

The Only Perfect Tandem.

Send for Illustrated Catalogue.

THE MAJESTIC MFG. CO.

38 SOUTHBRIDGE ST.
WORCESTER, MASS.
SEE US AT THE CHICAGO SHOW, SPACE 30

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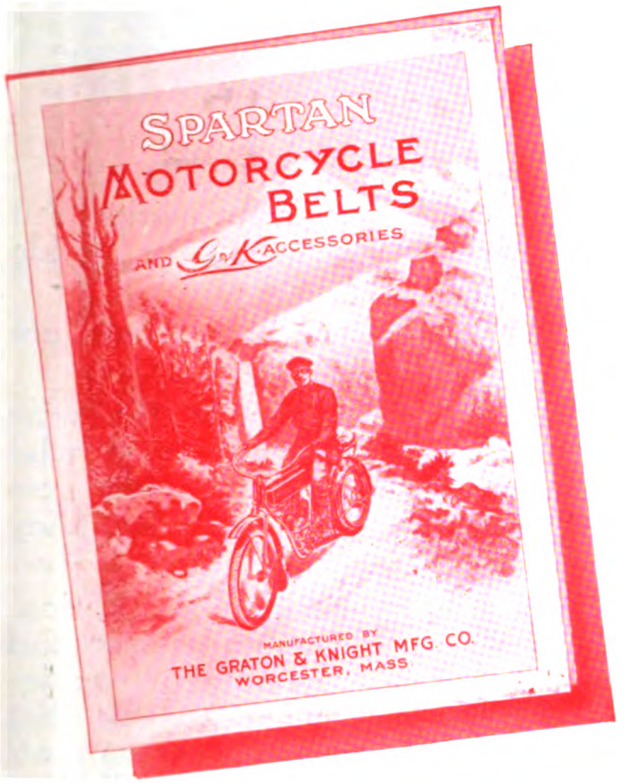
SPARTAN CATALOG



FOR 1913

Fresh From the Press

Send for Your Copy at Once

The Spartan Catalog for 1913, 5 inches by 7 inches (coat pocket size), is a masterpiece both from an artistic and practical standpoint.

Twenty pages and cover—handsomely illustrated in colors—full of just the information needed daily by every actual or prospective motorcycle rider.

It completely describes Spartan Motorcycle belts and accessories.

It tells how to properly care for motorcycle belts—how to increase their life and maintain their efficiency.

It contains an invaluable discussion on motorcycle transmission.

In short, the Spartan Catalog for 1913 is a veritable fund of information—the kind you cannot afford to be without.

Send for your copy now—we've got a good supply, but first come first served, therefore, don't delay—fill in and mail

the coupon ——————➤

Mail it today.

THE GRATON & KNIGHT MFG. CO.

Franklin and Norfolk Streets

WORCESTER, MASS.

CANADIAN DISTRIBUTORS

CANADA CYCLE & MOTOR CO.

W. Toronto Winnipeg Vancouver Montreal

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Date.....1913

Graton & Knight Mfg. Co., Worcester, Mass.

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YALE
THE CONSOLIDATED MFG. Co. TOLEDO, O.

National Shows, the Time to

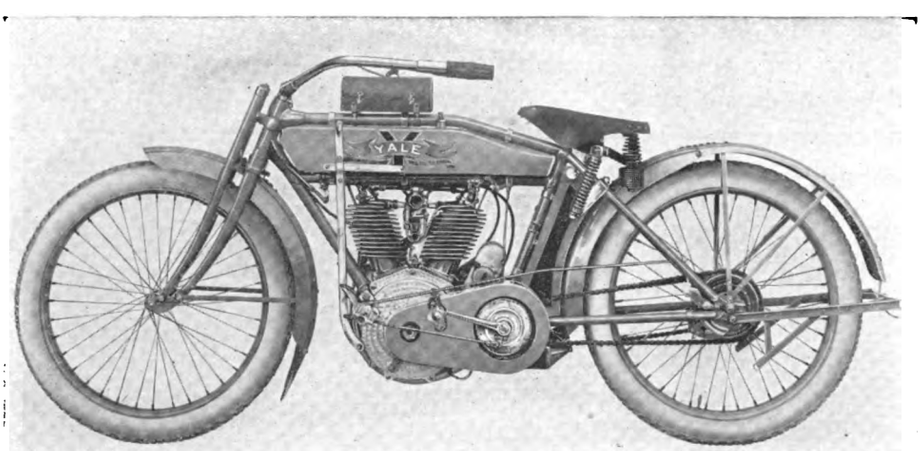
AT THE big show was the great opportunity to decide relative merits. All the evidence was there before you—for your judgment to decide where your dependence should be placed in 1913.

You could examine all the machines, find out what their claims are really worth.

Comparison of the Yale with any other motorcycle made the wise riders notice how distinctly its superiority stands forth—how the man who buys a Yale gets more for every dollar of its price than the man who gets another make—for even though other machines sell at a lower price, they cost far more in a season's riding.

Compare the three-inch tires, powerful motor, positive lubrication, comfort-insuring cushion fork and Y-A shock absorber, perfect balance and other "quality" features of the Yale to the inadequate tires, inferior engines —with single-cylinder cooling systems for twin motors—oiling systems that burn up bearings if the rider's attention wavers, wobbly and dangerous seat-posts and hinged spring frames, and equally faulty or "low-priced" construction used on other machines.

The comparison is overwhelmingly in favor of the Yale.



BIG 7-8 H. P. Twin Yale. Note the "classy," racy appearance. Drive by roller chain or big V belt (no flat belt could hold the full power of this motor) with Eclipse free-engine clutch on all machines. Yale cushion fork and Y-A shock absorber. Troxle saddle. Three-inch tires (automobile size), Goodyear, U. S., Federal or Diamond. Hinged rear mudguard. Footrests, with auxiliary foot lever for operating brake when feet are on rests. Corbin band or Eclipse multiple disc-brake. Wheelbase, 57½ inches. Large separate tanks carrying three gallons of gasoline and a gallon of cylinder oil. Throttle and spark controlled from grips, with exhaust-valve lift operated by independent lever under right grip. Unusually efficient muffler with cutout that when opened gives free, straight-line outlet for gases. **$275**

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YALE
THE CONSOLIDATED MFG. Co. TOLEDO, O.

Test Claims and Compare Scores

The man who buys a motorcycle of another make because it sells for less than a Yale, soon comes to appreciate the moral pointed by a poem in the old Appleton's Fourth Reader. It is:

THE RAZOR-SELLER

By Pindar.

A fellow, in a market town,
Most musical, cried razors up and down.
And offered twelve for eighteen pence,
Which certainly seemed wondrous cheap,
And, for the money, quite a heap,
That every man would buy, with cash and sense.

A country bumpkin the great offer heard;
Poor Hodge, who suffered by a broad black beard,
That seemed a shoe-brush beneath his nose.
With cheerfulness the eighteen pence he paid,
And proudly to himself in whispers said,
"This rascal stole the razors, I suppose.

"No matter if the fellow be a knave,
Provided that the razors shave,
It certainly will be a monstrous prize."
So home the clown with his good fortune went,
Smiling, in heart and soul content,
And quickly soaped himself to ears and eyes.

Being well lathered from a dish or tub,
Hodge now begun, with grinning pain, to grub,
Just like a hedger, cutting furze;
'Twas a vile razor; then the rest he tried;
All were impostors. "Ah!" Hodge sighed,
"I wish my eighteen pence was in my purse."

In vain to chase his beard and bring the graces,
He cut and dug, and whined and stamped and swore;
Brought blood, and danced, blasphemed, and made wry faces,
And cursed each razor's body o'er and o'er.
His muzzle, formed of opposition stuff,
Firm as a Foxite, would not lose its ruff;
So kept it, laughing at the steel and suds.

Hodge, in a passion, stretched his angry jaws,
Vowing the direst vengeance, with clinched claws,
On the vile cheat that sold the goods.
"Razors! a vile, confounded dog!
Not fit to scrape a hog!"

Hodge sought the fellow, found him, and begun:
"Perhaps, Master Razor-Rogue! to you 'tis fun
That people flay themselves out of their lives,
You rascal! for an hour have I been grubbing,
Giving my crying whiskers here a scrubbing
With razors just like oyster-knives.
Sirrah! I tell you, you're a knave,
To cry up razors that can't shave."

"Friend," quoth the razor-man, "I'm not a knave.
As for razors you have bought,
Upon my soul, I never thought
That they would shave."

"Not think they'd shave?" quoth Hodge, with wondering eyes,
And voice not much unlike an Indian yell,
"What were they made for, then, you dog?" he cries.
"Made," quoth the fellow, with a smile, "to sell."

And after comparing the Yale score with others, get action quick. There are just a few more agencies left, and he who delays will miss the good things that are in store for the Yale dealer in 1913.

Consolidated Mfg. Co., 1751 Fernwood Ave., Toledo, O.

Eastern Representative, F. C. CORNISH, 219 Clinton Ave., Newark, N. J.
California Distributor, LOS ANGELES MOTORCYCLE CO., 843 S. Spring St., Los Angeles
Makers also of Yale and Snell Bicycles, Hussey Handlebars, Brazed Tubing, Bent Parts, and Drop Forgings of Every Description

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SOLD

$4,505,000.00 worth of Harley-Davidson output of 17,000 machines—weeks—actually contracted for

WE are completely sold out—we admit it—we are proud of it. We are not exhibiting at the Chicago Show to secure dealers, for we can handle no more this year. We are simply there to give all an opportunity to inspect our 1913 line and examine carefully the machines it has taken eleven years for us to perfect and which are directly responsible for this, our latest sales record.

Harley-Davidson Motor Co.

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OUT

Davidsons—our entire 1913 were sold to our dealers in 12½ and secured by deposits.

THIS is the first time any motorcycle manufacturer has made such a sales record—the first time any maker has actually turned away business. Our success has been due entirely to the fact that we realized years ago that our own future depended on *how* we made Harley-Davidsons—not on how *many* Harley-Davidsons we made, and not to any *general* demand for motorcycles.

Producers of High Grade Motorcycles for Eleven Years

350 C STREET, MILWAUKEE, WISCONSIN

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SPLITDORF

"Always There"

Here is the magneto you have been looking for!

Every motorcyclist owes it to himself to investigate. Don't be put off by specious argument—inquire about the new SPLITDORF and insist upon its use.

Racer and road-plugger alike have demanded a waterproof, efficient, reliable and easy starting instrument.

The SPLITDORF "EU" and "EV" enclosed models—for the single cylinder and "twin," respectively, fill the bill.

Fill the bill perfectly, too. First of all, the newcomers are **waterproof.** No short circuiting troubles through rain and mud—no water, mud or waste oil can penetrate SPLITDORF MAGNETOS.

The best engineering skill has been devoted to the construction of these instruments to make them electrically efficient, aside from the all-important waterproof feature.

Windings have been made, to insure the fat, live, spark that, although retarded, makes the **starting easy.**

In crowded traffic or by hill or dale, the "punch" is always there in a SPLITDORF MAGNETO to "get going."

And once "going" SPLITDORF MAGNETOS know no miss or skip. It is the constant hot, fat spark that can always be depended upon to give joy to the motorcyclist's heart.

INSURE against ignition trouble and responsibility, and ASSURE yourself of all the pleasure and comfort of motorcycling by insisting on SPLITDORF EQUIPMENT.

If interested in any form of ignition for gasoline motors, just write in for our free literature. Our new catalog, our "Racing Record" or our "New Lights for Old" is yours for the asking. Do it TODAY.

Splitdorf Electrical Co.

98 Warren Street

NEWARK, N. J.

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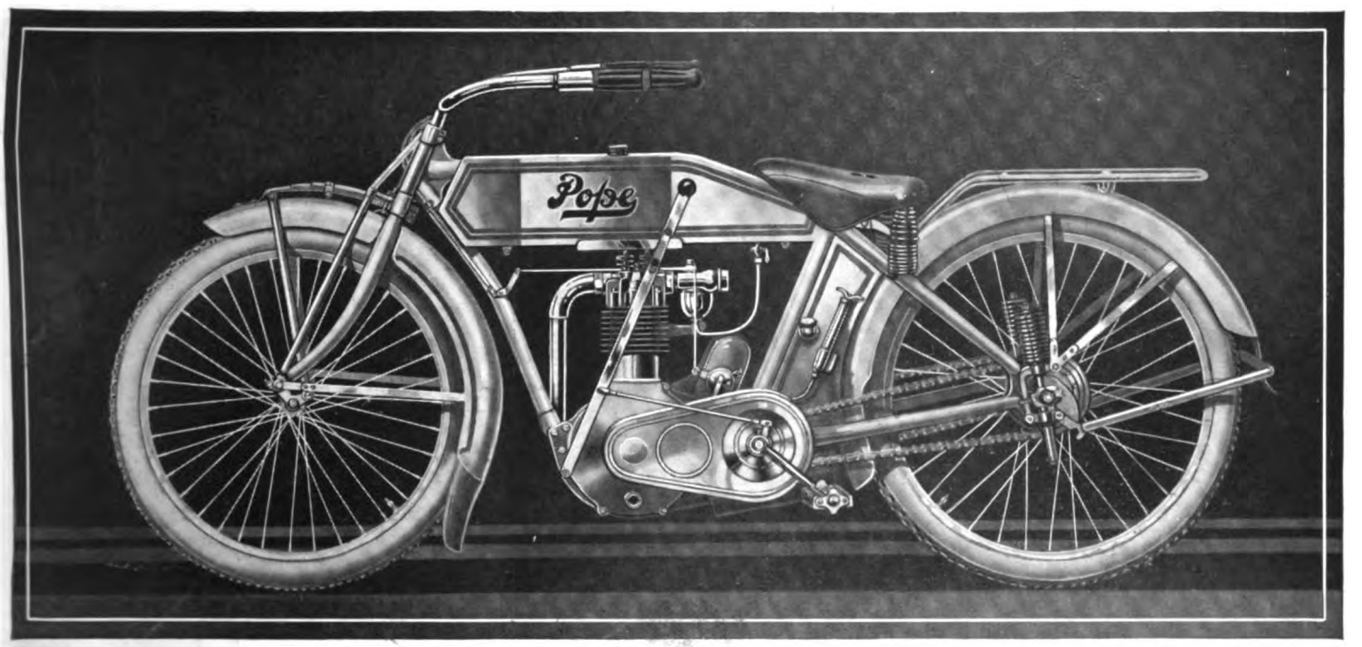
New Pope 5 H. P. Chain Drive

PATENT REAR SPRING SUSPENSION, POPE SPRING FORK, OVERHEAD VALVES, 5 H. P. MOTOR, MAGNETO IGNITION, MECHANICALLY OPERATED OILER - $215.00



56½ inch Wheelbase—28 inch Wheels fitted with 2½ inch Tires.

MODEL M, A HIGH-POWERED "SINGLE" HAVING MANY FEATURES IN COMMON WITH NEW POPE "TWIN"

In Comfort, Power, Speed, Silence and Attractive Lines, this Pope "Single" cannot be Approached

THE PATENT REAR SPRING SUSPENSION

which Model M has in common with Model L (the Pope "Twin") solves the problem of producing a really smooth-riding motorcycle. The normal position of this helical spring device attached to the rear forks is shown in the above cut. When the rider's weight causes the springs to expand, the load is suspended. As the wheel strikes an obstacle, the rear-axle, bearing-blocks, and guide-rods, rise easily, bringing the helical springs into expansive play and absorbing the shock.

FULL DETAILS OF REAR SPRING SUSPENSION AND OTHER FEATURES IN 1913 POPE CATALOG NOW READY

New Pope "Twin" 7-8 H. P., Patent Rear Spring Suspension, Overhead Valves, $250

Full Pope Line for 1913—4 Models—Model L "Twin", $250; Model M, 5 H. P., Chain Drive, $215; Model K, 4 H. P., Belt Drive, $200; Model H, Lightweight, $165.

SEE THE POPE LINE AT CHICAGO SHOW, SPACE NO. 1

THE POPE MANUFACTURING CO. - Hartford, Conn.

Pacific Coast Distributors:

F. P. Keenan Co., Portland, Ore., Northwest.

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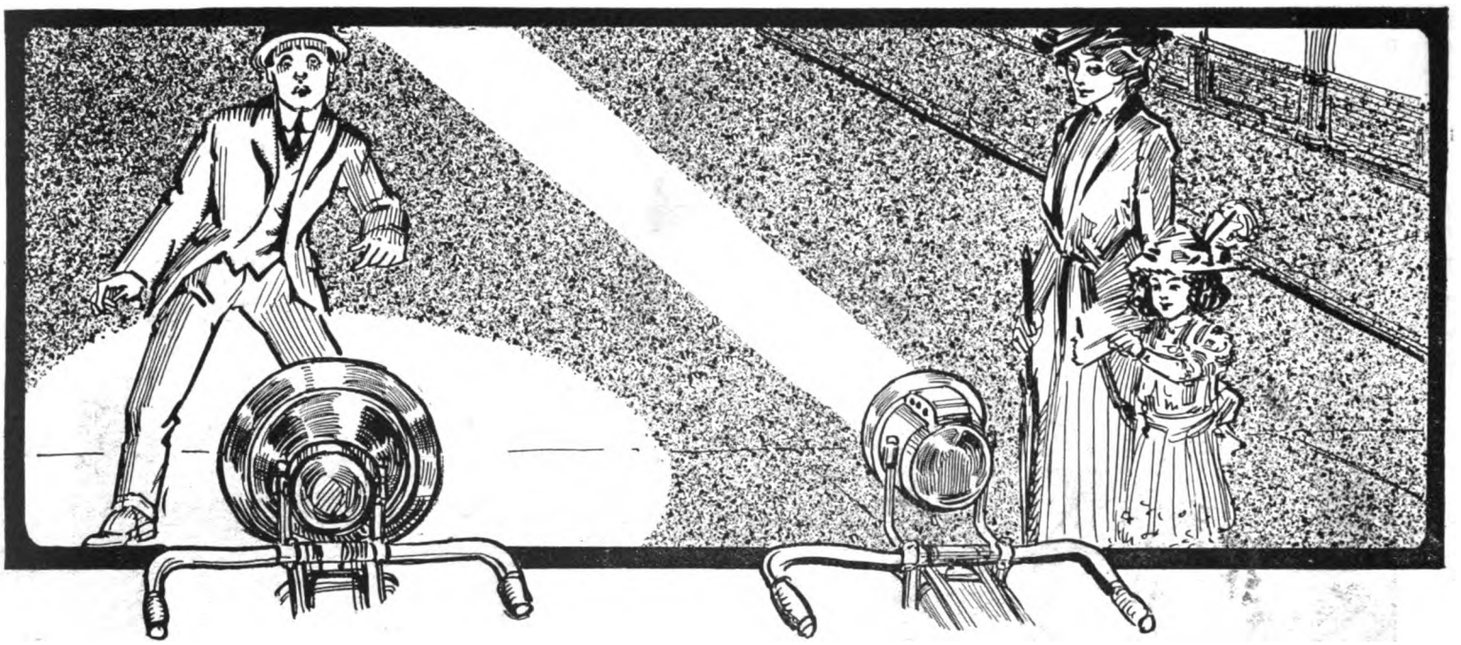


Jobbers and Dealers—Listen

The big cities are passing ordinances prohibiting the use of big flaring lamps on automobiles and other vehicles, because they dazzle and confuse the approaching driver or pedestrian. A broad, dazzling ray of light seems to blind and surround inextricably the one approaching.

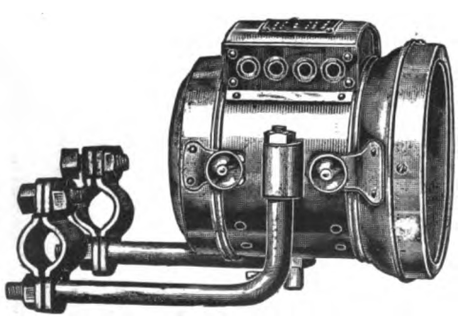
20th CENTURY LAMPS

(Motorcycle and Bicycle)

Can be used just as well in the large, crowded cities as in the less populated country. Their **long range** power with **direct concentrated** ray—not broad and scattered—quickly reveals dangers a long way off and at the same time their rays, being long and fairly narrow, do not engulf the approacher with a blinding, confusing glare.

This is a supremely important feature, and found only in the 20th Century Lamps. It is one of the many reasons why the demand for these Lamps is ever increasing. They are also popular because of their Reliable Quality and Unfailing Dependability.

Catalogue and Quotations cheerfully sent on request.

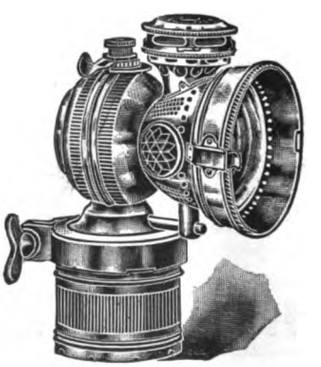


MOTORCYCLE SEARCHLIGHT No. 102
Showing Back Closed

20th Century Mfg. Co.

420-422 Ogden Street

Newark, N. J.



BICYCLE No. 2
Combined Lamp and Generator

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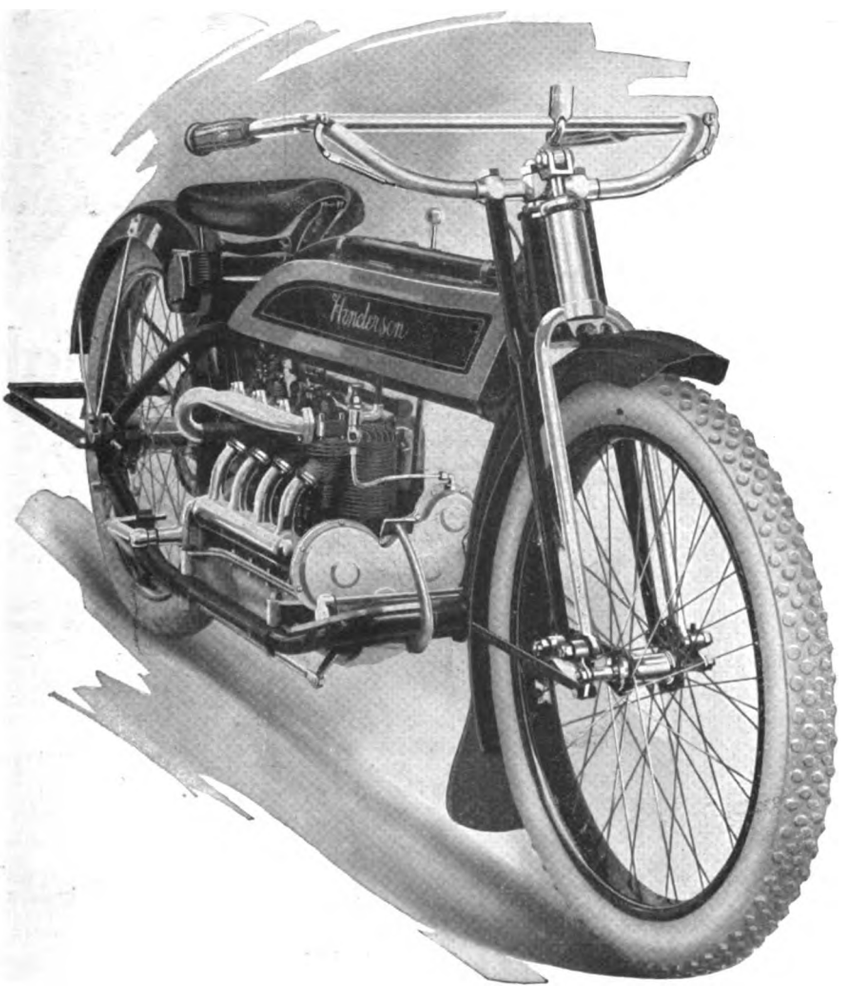
Ready Buyers Will Take All The Machines We Can Build This Year



The new 8 H. P. four cylinder Henderson—$325. Schebler Carbureter, Bosch Magneto, 3-inch tire, External Band Brake.

The dealer who sells the Henderson is not likely to experience difficulty in disposing of his allotment.

Why? Because of the Henderson's Country-wide popularity.

Because the Henderson fully and completely answers the demand for silence, greater power, greater comfort, no vibration—and all the other advantages of four-cylinder construction.

And because the Henderson, in one year, has taught the public that these advantages, as it combines them, are real and worth having.

Literature, terms, etc., sent on request.

Henderson Motorcycle Company, 1158 Cass Ave., Detroit, Mich.

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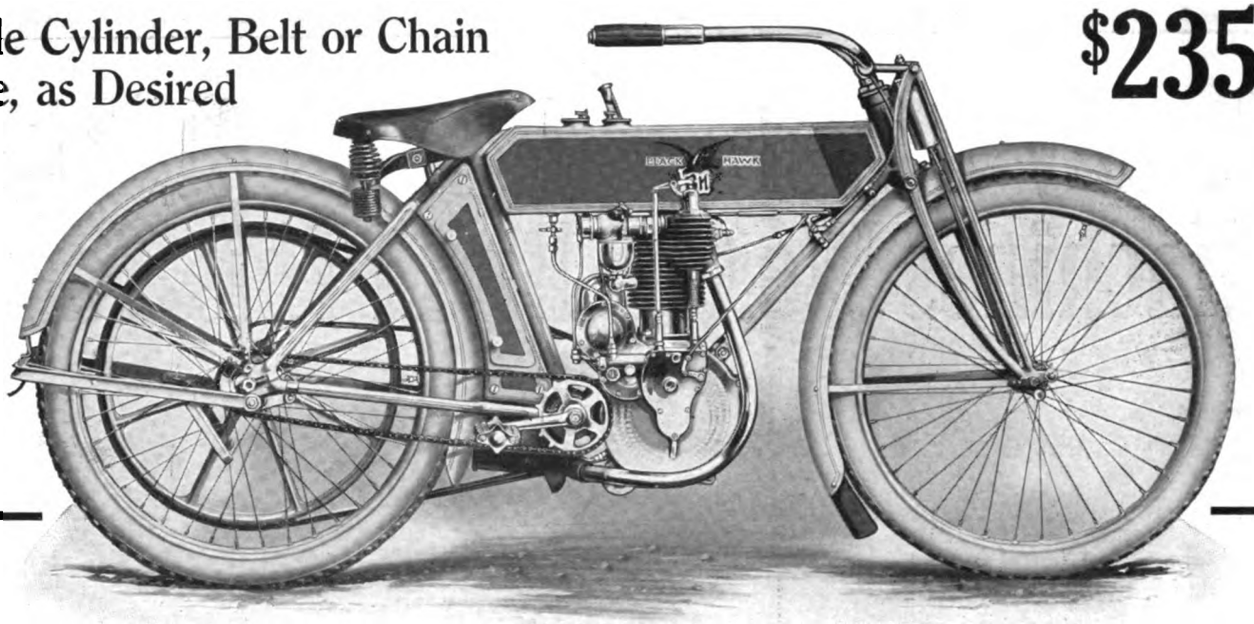
Single Cylinder, Belt or Chain Drive, as Desired

$235.00



The Most Interesting Sight At the Chicago Show

At the Chicago Show you will have your best chance to compare all motorcycles—to decide which is best. Begin at Booth No. 62 and compare there what you see in the other exhibits.

Note the big difference in favor of the "Black Hawk" and remember when you look at this motorcycle that it sells for only $235.00.

We began the construction of this motorcycle nearly two years ago. During all this time we have worked it out, tested it, perfected it.

This is no makeshift motorcycle, no made-over model. Every device, every feature is a real betterment—and the result is that the "Black Hawk" is

The Most Up-to-Date Motorcycle on the Market

Rivals may have motorcycles which possess some feature or other of advantage, but the "Black Hawk" is the one machine that possesses every feature of the best motorcycles (without the faults of either) besides scores of other features of excellence which are exclusive with us.

The leading features are

—**Motor** develops 6 H. P. on brake test.

—**Spring Fork** of trussed arch type, guaranteed not to bottom.

—**New Free Engine Clutch** and **Coaster Brake** combination in **rear hub.**

—**Steel Tank Integral with Frame.** This design admits of **very low saddle position** without sacrifice of frame lines.

—**Spring Seat Post** of exclusive design, provides for heavy or light shocks without weakening saddle or spring. May be changed to suit the rider by reversing lever link.

—**Mechanically Operated Oil Pump.**

—**Appearance.** Graceful, neat and trim in every detail, possessing long, straight lines and symmetry lacking in other machines.

—**Color**—Light gray with dark panels on tank and tool box and blue striping is the enamel scheme and all bright parts are nickel plated.

—**Equipment** includes Bosch Magneto, Schebler Carburetor and Troxel saddle. The tires are 2¾ inches on both front and back wheels.

BLACK HAWK

The Men Behind the "BLACK HAWK"

The "Black Hawk" is not built by unseasoned experimenters, but is the product of men who have long been prominently identified with the motorcycle industry.

These men, by careful study of every modern discovery in motorcycle construction and by eliminating ideas which have proven unwise, have helped us to accomplish that which other manufacturers have striven years to do—and that is to build a motorcycle without a fault or flaw anywhere, a motorcycle that for length of service, luxuriousness and easy-riding qualities stands supreme.

Handsome Book FREE

Our catalog, which fully describes and illustrates the "Black Hawk"—a motorcycle which contains more motorcycle value for the money than any other machine, at any price—is yours for the asking. Send for it today.

TO RIDERS Write for name of dealer who is nearest you, so that you can see for yourself that when compared with other motorcycles the "Black Hawk" sets the highest standard of value that has ever been offered to the American public.

We want you to read the balance of the "Black Hawk's" mechanical details at your leisure, so send for our handsome book which fully describes and illustrates this best of all motorcycles.

We believe the "Black Hawk" is suited to meet the demands of the rider more than any other motorcycle in the world. You will believe so, too, when you have seen our machine, for we have no competition when it comes to real quality, real merit.

Other motorcycles, no matter what the price, will seem very poor to you in comparison with the "Black Hawk"—and with you, as with other riders, other dealers, it is bound to be first choice.

Dealers

from all parts of the country **are** applying for agency contracts to sell the "Black Hawk" in their locality. There is still much desirable territory open which we will assign to those who are prepared to represent us properly and aggressively.

Write at once for dealer's proposition and we'll lay our plans bare before you.

BLACK HAWK MOTOR CO., Dept. B, Rock Island, Ills.

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Let Me Demonstrate This Musical Horn to YOU

G. V. P. Lansing

I want you to ***hear*** this musical MOTORCYCLE horn —to listen to its courteous signal. I know that I can't ***describe*** its tone. All I can say is that it has a clear, distinct, chime-like warning, produced by four musical notes. I want to demonstrate the Aermore to you. I want you to hear it ***yourself.*** Just write me today for my special offer.

When Mr. Fulton put one on his machine he told me: "It sings like an organ and you can hear it a mile away." You'll say the same when you hear

The AERMORE Exhaust Horn

—the Horn Harmonious

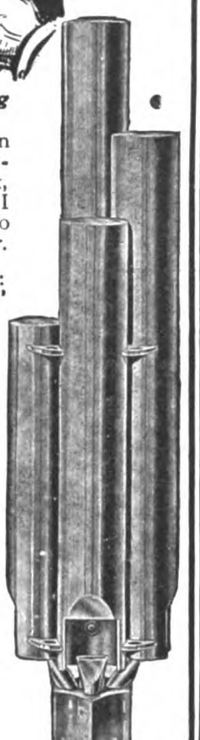
It's the only self-cleaning exhaust horn on the market. Can't clog. Can be attached to any exhaust pipe in a few minutes. Price $7.50 for motorcycle horn. We also make Aermore Horns for automobiles. Three sizes: $10, $11 and $12.

Write Me Today for Literature

Get my offer to demonstrate this musical horn to you. Write me today. I'll also send you descriptive literature. When you see the principle of the Aermore Horn you'll decide right then that it's the most efficient signal device made. Now send me a postal and get my special offer to demonstrate the Aermore to you. Write me today. G. V. P. LANSING, Pres.

Aermore Mfg. Company

Dept. 603, 1536 Michigan Blvd. CHICAGO, U.S.A.



Patented Jan. 23, '12 Aug. 20, '12

(23A)

Aermore Mfg. Co. is a wide awake concern which is buying one by one as it can, the best ideas and inventions in the motor accessory line and manufacturing for the trade.

The Aermore Horn made this concern famous.

The Sabo Motorcycle Lock is now here.

It speaks for itself

The Shlosberg Muffler is coming.

It is what the Motor world is waiting.

We are determined that what we make shall be

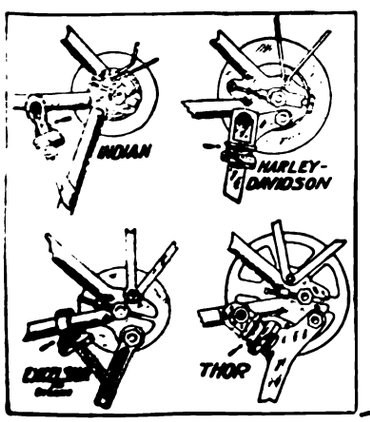
The best kind of the best of its kind

Stop Thief!—Police?? No a Sabo Lock

Keep your name off the list of "Stolen Motorcycles." Almost daily you see mention of another machine stolen. Laws against motorcycle thieves are weak and the only way to thoroughly protect yourself is by locking your machine so it cannot be moved except by YOU—and the only lock that prevents machine being moved and that cannot be picked, pried or cut, is the "SABO."

You can safely leave your motorcycle anywhere if you have a Sabo lock. It fits tight to the frame—cannot be pried off—there are no chains to be cut by pliers. You've got the goat of every motorcycling "Jimmy Valentine" that wants a ride on your gasoline. The lock is scarcely noticeable. The would-be thief will perhaps not see it; will walk up to the machine acting as if it were his own. But when he tries to move it from the stand he'll learn "Sabo's on the Job."

It's made of bronze metal neat, simple, strong—fits your smallest pocket—lasts forever. The stand is locked securely to the frame—the machine cannot be moved while the lock is there—no danger of breaking spokes or chain by forgetting the lock and pushing machine from stand. It is impossible to wheel or ride the machine away.



We prefer to have you buy from your dealer, but, if he does not have it, send this order blank with $1.25 and the lock will come back to you, satisfaction guaranteed, prepaid, by return mail.

JOBBERS

List this in your 1913 Catalog. Cuts, literature and advertising matter furnished. Write for proposition.

DEALERS

Stock this lock. Showing it means selling it. We refer inquiries, furnish cuts, literature, etc. Send for proposition.

Aermore Manufacturing Company

Department 603

1536 Michigan Boulevard

CHICAGO, ILL.

AERMORE MANUFACTURING CO.
DEPT. 603, 1536 MICHIGAN BLVD., CHICAGO, ILL.

Enclosed find $1.25 for a Sabo Motorcycle Lock for .....machine.

NAME.....

ADDRESS.....

DEALER'S NAME.....

When writing to advertisers, please mention MOTORCYCLE ILLUSTRATED.

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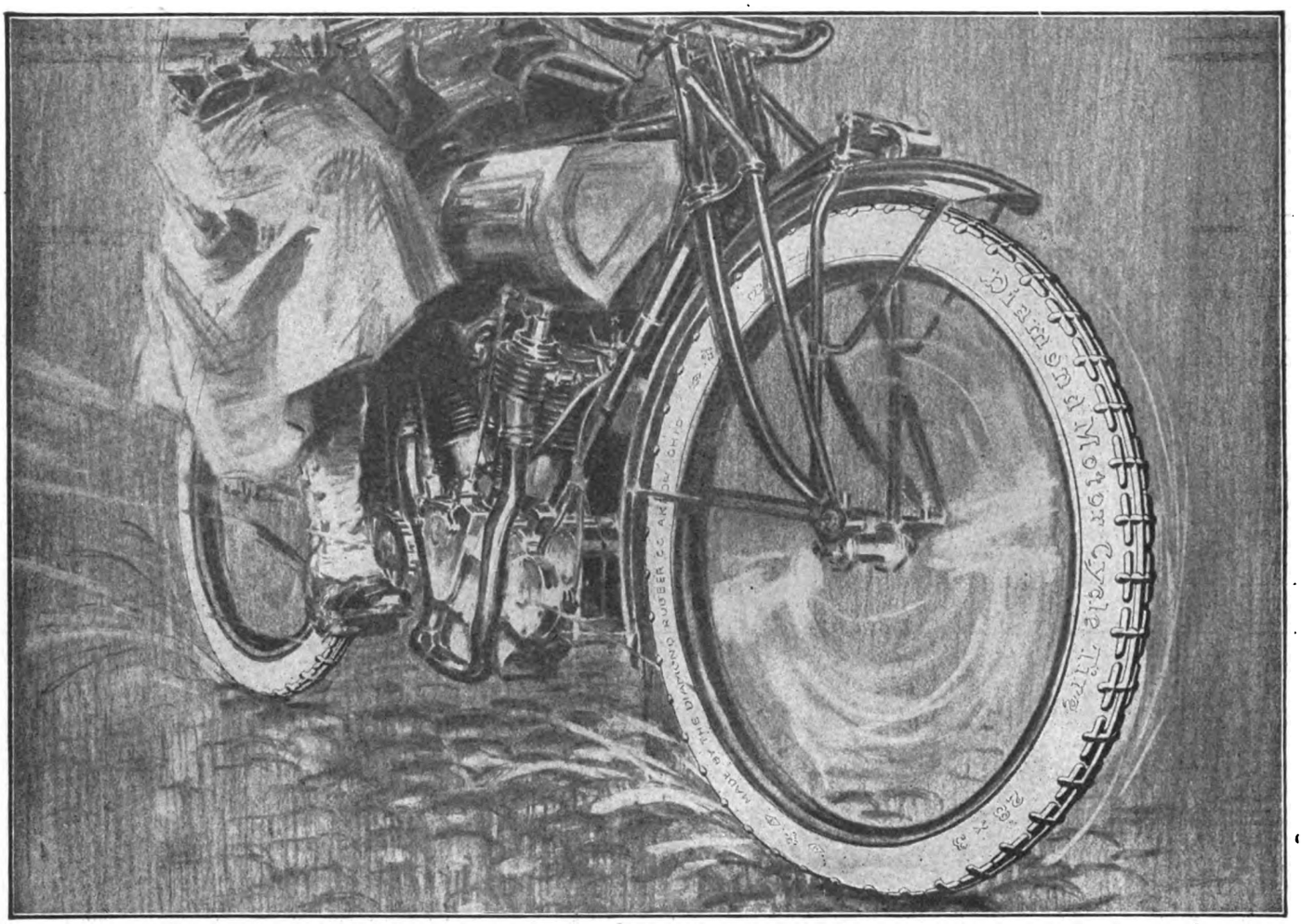
ANY CURBSTONE WILL STOP A SKID

But Only Diamond SAFETY TREAD (SQUEEGEE) TIRES WILL PREVENT ONE FROM STARTING



Diamond Safety Tread Motorcycle Tires obey your will. Your machine is always under your control—you go where you steer.

No matter how slippery and treacherous the pavement, they grip and hold. You ride in safety and you ride with pleasure on Diamond Safety Tread Tires.

But that's not all. There's real economy in Diamond Safety Tread Tires. Extra mileage is built into them and you get it. The mileage strip adds 20% to the wearing surface of the tread and assures you of a correspondingly high mileage and freedom from trouble.

Get this clearly in your mind—The Diamond Safety Tread Motorcycle Tire is not a tire that stops a skid, but prevents one from starting.

THE DIAMOND RUBBER CO. OF NEW YORK

(Subsidiary of The B. F. Goodrich Co.)

AKRON, OHIO

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Diamond MOTORCYCLE TIRES

MADE OF

VITALIZED RUBBER

AND IN TWO FAMOUS TREADS

SAFETY and STUDDED
(SQUEEGEE)

BOTH WITH A DISTINCTIVE DIAMOND FEATURE

THE MILEAGE STRIP

Vitalized Rubber is pure young rubber combined—by a secret process known only to ourselves—with a toughening compound and the result is the toughest, most wear-resisting material every put into a motorcycle tire.

A brand new and exclusive Diamond feature is the mileage strip—extending all round the tire and adding 20% to the wearing surface of the tread. It not only means greater mileage, but it puts the side-slip bugaboo into the discard.

You have the choice of two treads—Safety (Squeegee) and Studded. The sharp, clear-cut studs on the new Diamond motorcycle tire, combined with the mileage strip, will hold your machine where you want it better than any other studded tread tire you can buy.

And, in addition to all these things, you get perfect 3-point rim contact—an assurance that the tire will sit perfectly in the rim. No unnatural distortion or bending of plies to break down the tire before it has given the mileage you pay for and should get.

THE DIAMOND RUBBER CO. OF NEW YORK
AKRON, OHIO

(Subsidiary of The B. F. Goodrich Co.)

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UNIVERSAL SIDECARS

Unequalled for Quality and Elegance

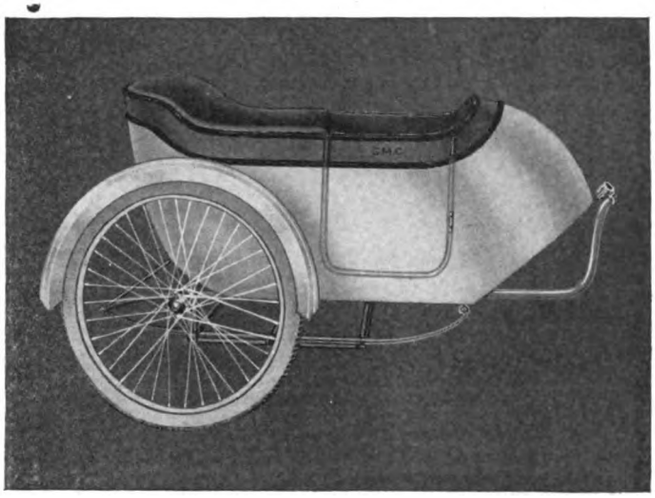
Built by practical people along mechanical lines for discriminating purchasers.

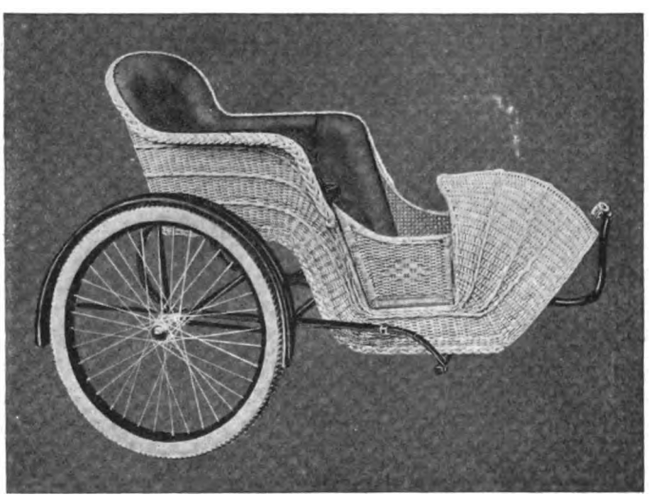
Quality is the keynote in the selection of materials, and with this is coupled master workmanship.

We submit for the approval of experienced riders and roadmen every detail of the construction of our cars.

"Auto-Car" Model

Aluminum Body (No. 16 Gauge Metal) Flush Sides, Automobile doors; ¾" elliptical springs, underslung frame, steel fittings, couplings quick-detachable. Luxuriously upholstered in true automobile fashion. Brass foot rail. Compartment under seat for storing light luggage or spares. Enamel or nickel trimmings. Finished in the best possible manner. Eclipse "Knock-out" Axle, Large Tires.





Model S. D.

Chassis of extra heavy cold drawn seamless tubing, especially annealed and reinforced at all joints. All fittings are of steel, carefully machined, pinned and braced.

Best imported reed body, frame of wood reinforced with steel, equipped with floor board which materially strengthens frame and prevents weaving. Heavily upholstered with best grade of imitation leather. All bodies equipped with tool and luggage receptacle under seat. Finished in Baronial stain, shellaced and varnished. Mounted on Chassis No. 2.

DELIVERY VAN

Made of sheet steel with body well reinforced with ash. Cover removable by withdrawing three pins. Body removable by unloosing four wing nuts, leaving flat platform suitable for bulky articles. Van mounted on flexible springs. Size of van 20 x 20 x 42. Maximum capacity 400 pounds. Frame constructed of heavy cold drawn seamless steel tubing, with crucible steel fittings throughout. Delivery Van is readily attachable to any motorcycle.

GREYHOUND MOTOR COMPANY, 1440 Niagara St. BUFFALO, N. Y.

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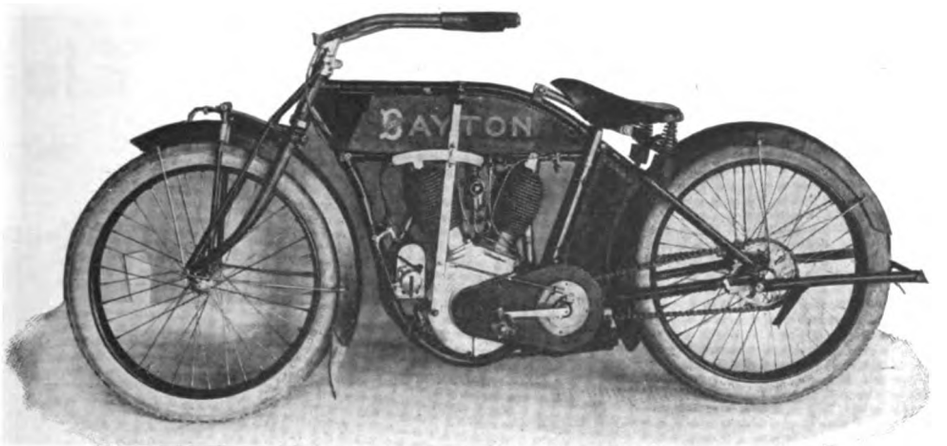
DAYTON



Have You Seen the Answer ?

If you are wondering how to build up a bigger motorcycle business, how to make more friends among the riders and bring them into your store, you will find the answer in our agency proposition. You will find that the Dayton is a good proposition for the dealer because it is a good motorcycle for the rider to own. Your request on the coupon below will bring our proposition by return mail.

Davis Sewing Machine Co.

(MI)

DAVIS SEWING MACHINE CO., DAYTON, OHIO.

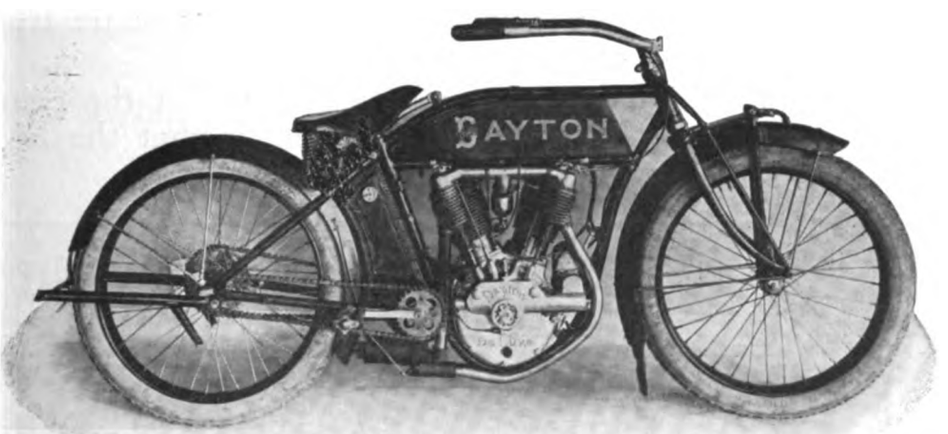
I am a motorcycle dealer and interested in your DAYTON proposition. Send me particulars.

Dealer's Name .....

Street Address .....

City .....State .....

Dayton Ohio



DAYTON

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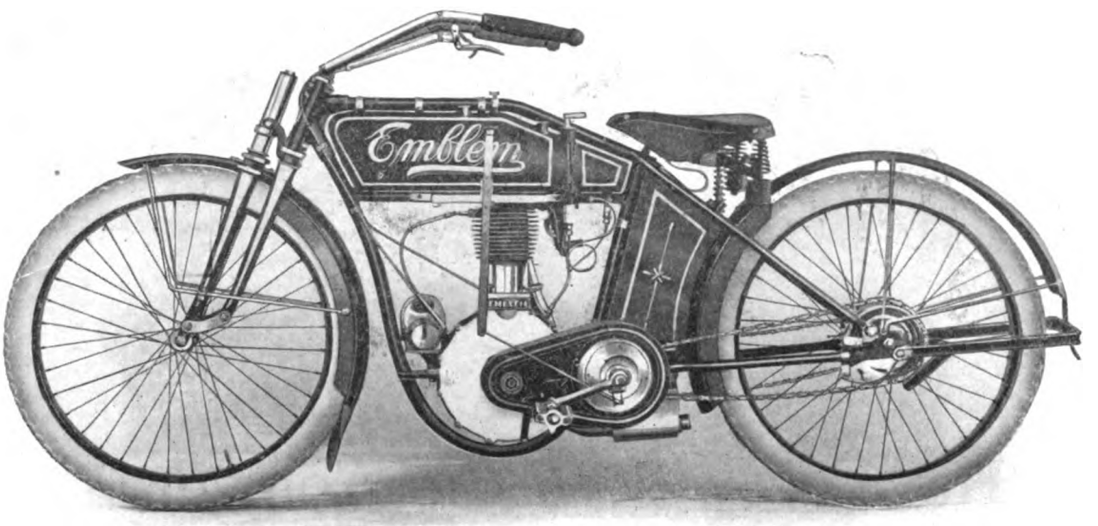
Emblem



EMBLEM single, 38.3 C. D. $175 and $200.

DEALERS—DO THESE EMBLEM PERFORMANCES MEAN ANYTHING TO YOU?

100 miles World's Record for a belt-driven, twin-cylinder motorcycle on a dirt track, won by George Evans on an EMBLEM at Columbus, September 17, 1911.

Chicago to New York record, over 1050 miles, established by M. E. Gale on an EMBLEM TWIN, August, 1910. Time, 35 hours. This record has never been broken.

The EMBLEM holds the 100 miles World's Record for a belt-driven single on a dirt track, won by L. S. Taylor, on an EMBLEM 4, September 10, 1910.

Not to mention that memorable ride by Mr. and Mrs. Gale from Angola to Los Angeles, Calif., last summer.

These performances are significant of many things—but the principal conclusion which every rider is bound to reach is that the EMBLEM is worth thinking of seriously.

You as a live dealer should make it your business to visit our space at the Chicago Motorcycle Show at the very first opportunity. Your territory may not yet be closed, but it won't remain open very long.

EMBLEM MANUFACTURING CO.

Angola, Erie Co., N. Y.

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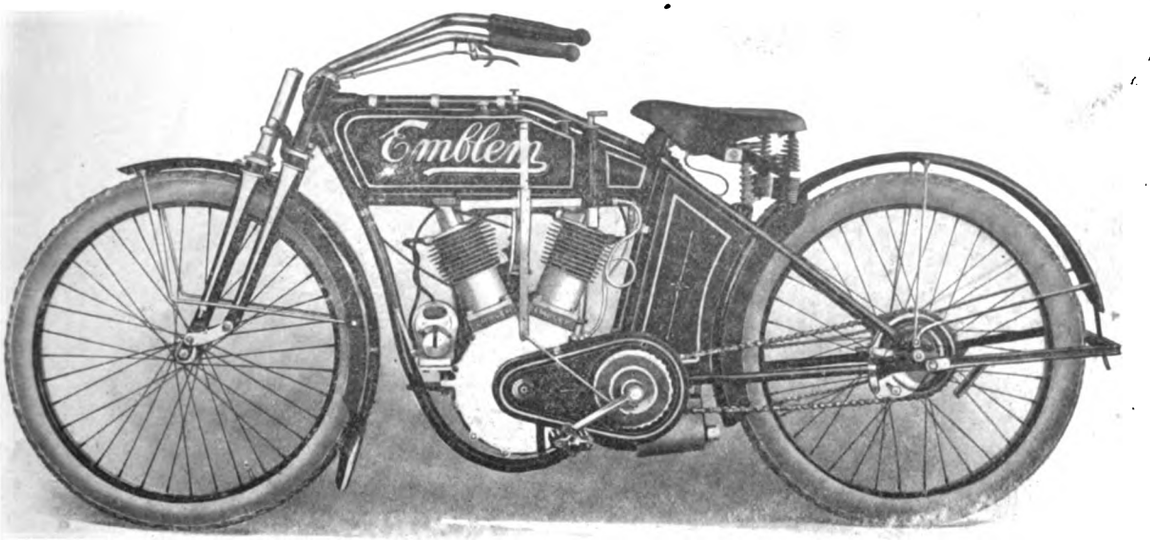

EMBLEM TWIN, 67 C. D. CHAIN DRIVE. $250.
EMBLEM TWIN, 76.6 C. D. $300.

For quiet, efficient, powerful and vibrationless service, the EMBLEM TWIN has yet to be equalled. Since we began to make motorcycles, we have consistently profited by the teachings of experience of the preceding years.

Therefore, it is no wonder that the 1913 EMBLEM is a concrete assembly of every one of the former EMBLEMS' good points, with a total absence of faults.

The EMBLEM is comfortable—speedy as the wind—enduring as granite and as easily controlled as a bicycle.

To meet the demand for a motorcycle with more power than the rider ever dare use, we have constructed the EMBLEM TEN. Boys—it's a pippin! It has a tremendous lot of power and is the thing for sidecar trips 'cross country.

Emblem Manufacturing Company

THE EMBLEM LINE

Single, Battery or Magneto,
Belt Drive, 38.3, $175, $200.
Twin, 67., Magneto, $275.
76.6 Magneto, $300.

Angola Erie Co. N. Y.

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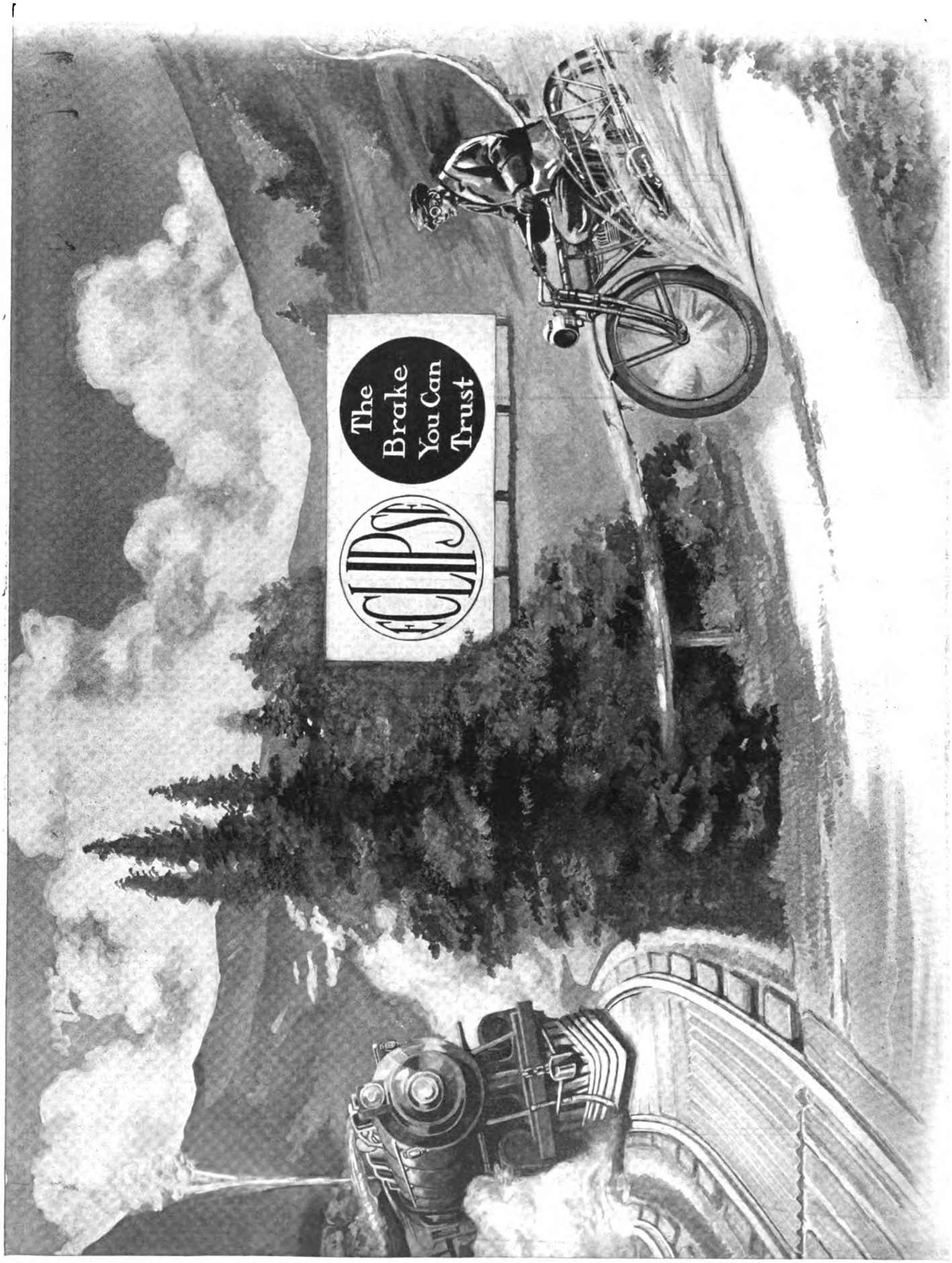

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Eclipse Means Safety

THE unexpected emergencies often met with upon the road demand instant action. Insure your safety and the safety of others by equipping with "THE BRAKE YOU CAN TRUST," the ECLIPSE Perfection Multiple Disc Brake, the most positive motorcycle brake built. It combines the unerring accuracy of a watch with the grip of a bull dog.

Built as no other brake was ever built before, with more than 100 square inches of braking surface, the ECLIPSE is amply powerful to instantly annul the most terrific momentum and bring the machine to an abrupt halt.

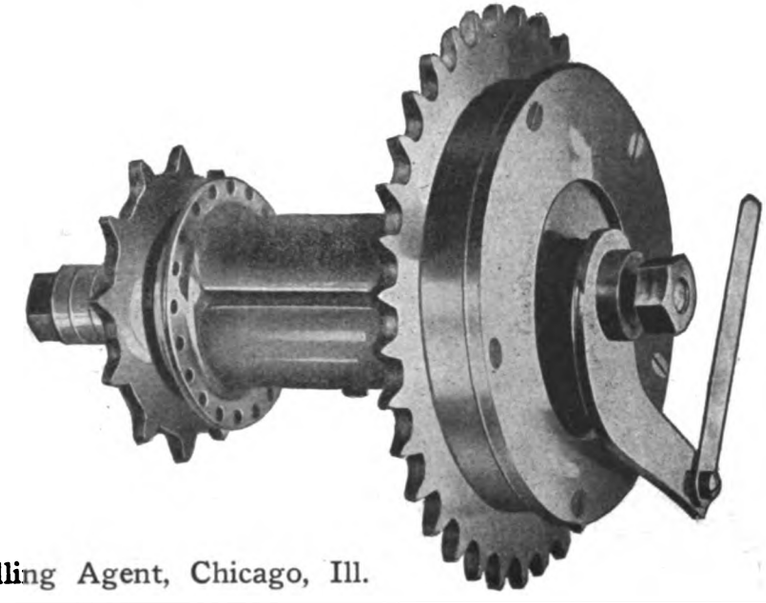
The lubrication problem has been fully provided for in the ECLIPSE Perfection Multiple Disc Brake. The hub can be packed with hard oil at the beginning of the season and this supply will last the entire year. The bearings contain 3/8-inch balls.

For the sake of absolute safety, and the ease of mind which its assurance brings, you MUST demand the ECLIPSE.

Dealers should anticipate the tremendous demand for the ECLIPSE MULTIPLE DISC BRAKE, the only brake of its kind in the world —and stock heavily.

Our new handsome illustrated catalog will be forwarded on receipt of your name and address.

Eclipse Machine Company



Elmira N. Y.

H. T. Roberts, Selling Agent, Chicago, Ill.

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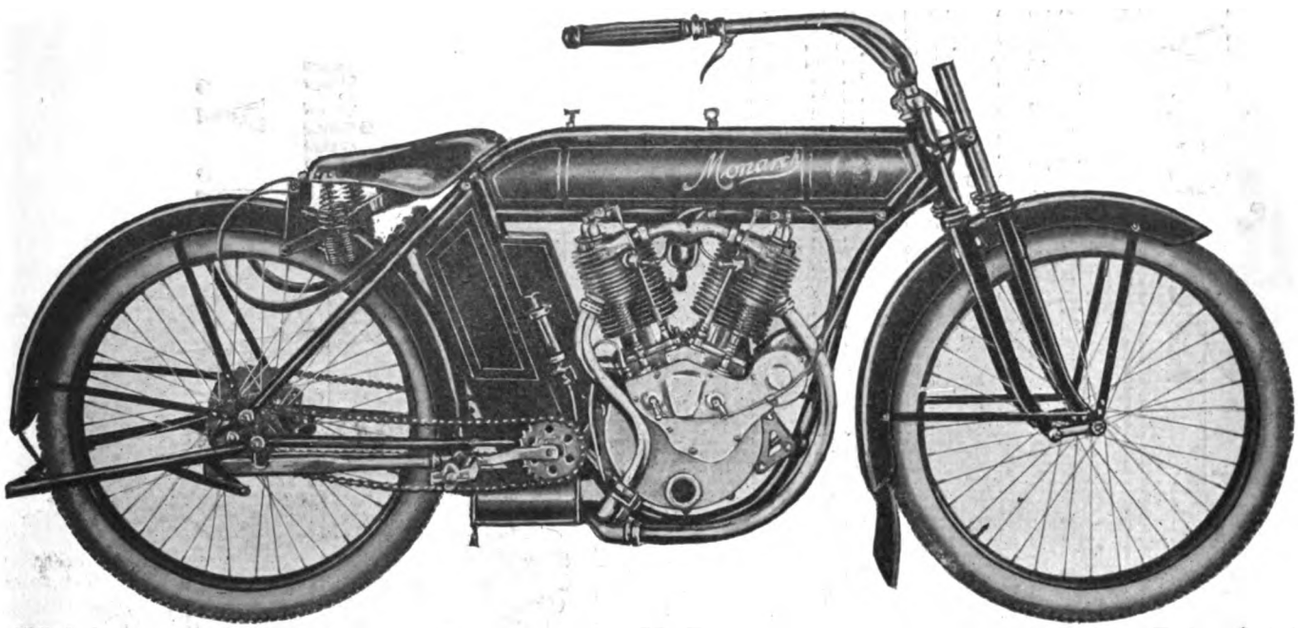
Monarch 1913 Announcement



Weight 250 lbs. **10 H. P.** **Price $275**

MONARCH Motorcycles are built by men who KNOW that they are building the BEST motorcycle; and not by men who guess and experiment at the expense of the motorcycle buying public.

The Big 5 single, tried and tested, is the most powerful and simple motorcycle on the market. Furnished in either chain or V-belt drive.

The 10 h. p twin, has all the tried and tested features of the Big 5, with the added power and speed of the second cylinder, and is the only machine for those who want the best that it is possible to build; a motorcycle that will take its rider anywhere and back, with no further attention than seeing that the tanks are filled, and that the motor gets gas and oil.

The MONARCH leaf spring seat suspension is the swellest and most easy riding contrivance ever invented. Like the most expensive cars, it suspends the rider stationary and allows the machine to take all the bumps without transmitting any to the man on the saddle. It is indeed a triumph by men who know how and are only willing to build the BEST.

The MONARCH agency for 1913 will be the most satisfactory proposition possible to obtain, for the Motorcycle dealer. Send for advance sheet No. 1 and testimonial book by MONARCH riders, that will convince anyone that our claims are founded on facts.

Single Cylinder—Weight 225 lbs. **5 H. P.** **Price $225**

We exhibit at the New York Show, Space No. 722. Chicago, Space No. 2.

Ives Motorcycle Corporation

200 John Street, Owega

Tioga County **NEW YORK**

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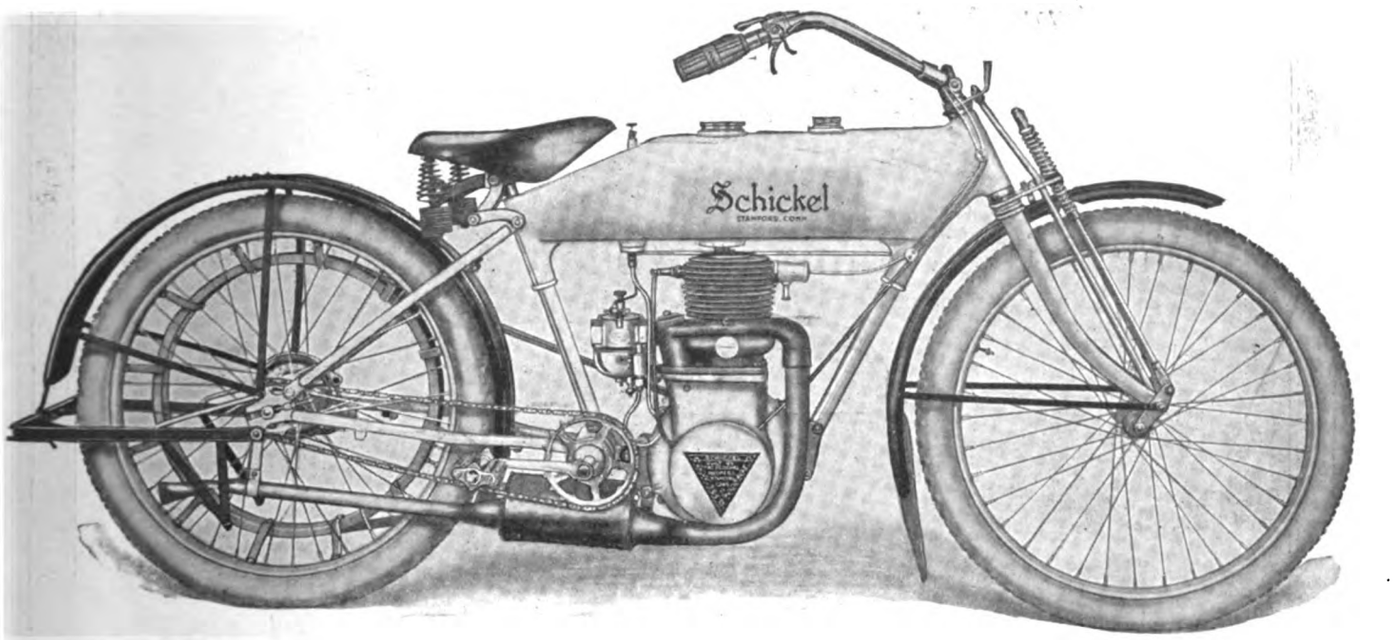
1913 Schickel 1913 Schickel 1913 Schickel

"THE BIG SIX"



The Verdict of the New York Show

Thousands upon thousands came to New York last week just to compare motorcycles at the show.

Each make attracted its share of inquiries. By direct comparison with other machines, it was generally conceded that the SCHICKEL excelled all others in these points:—

SIMPLICITY and NEATNESS OF DESIGN
CLEAN CUT and ATTRACTIVE LINES
RUGGED and SUBSTANTIAL CONSTRUCTION
QUALITY OF FINISH and WORKMANSHIP

Chicago alone offers such another opportunity to compare 1913 models.

See the SCHICKEL at the Chicago show and remember to compare it carefully with the other machines. Arrange for a demonstration on the street.

FOUR MODELS

Five Horse Power, Belt Drive, $225.
Five Horse Power, Chain Drive, $230.
SCHICKEL "BIG SIX," Belt Drive, $235.
SCHICKEL "BIG SIX," Chain Drive, $240.

Dealers should apply for our 1913 proposition without delay.

Advance literature on the new models sent on request.

The Schickel Motor Company, 59 Garden Street, Stamford, Conn.

1913 Schickel 1913 Schickel 1913 Schickel

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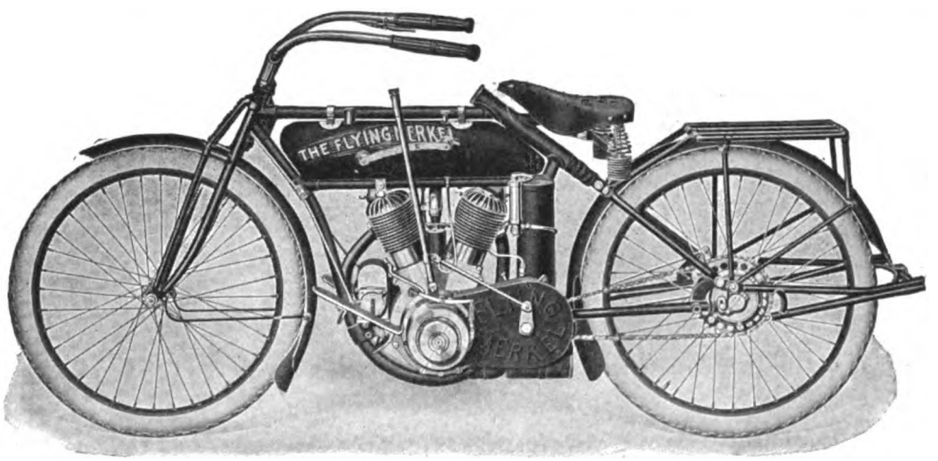
Here It Is

SPEED

THE FLYING MERKEL

The Prize Winning "Yellow Jacket" Model



The only Self-Starting Two-Speed Motorcycle in the World

At the New York Show
the Flying Merkel was
the only Motorcycle
showing Real Improvements,
As always—

Four Years ahead of our nearest competitor
Five years ahead of the rest

Our beautiful art catalog out this week. Send 2-cent stamp for copy.

The Miami Cycle & Mfg. Co.
300 HANOVER STREET
MIDDLETOWN, OHIO
MEMBER M.M.A.

POWER MIAMI COMFORT

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THE FLYING MERKEL

The 7-75 "Yellow Jacket" Model Will Be the Real Sensation of the Chicago Show

Come to Chicago During the Week of February 3-8, and Prove it to Your Own Satisfaction

Three-fourths of our output is already sold. If you have not arranged for territory, write today

The Miami Cycle & Mfg. Co.
300 HANOVER STREET
MIDDLETOWN, OHIO
MEMBER M.M.A.

MIAMI

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See the Big

CHICAGO MOTORCYCLE SHOW

Held Under Auspices and Sanctioned by the Motorcycle Manufacturers' Association

February 3 to 8, 1913

AT

1319 MICHIGAN AVENUE

The Greatest and Only National Motorcycle, Bicycle and Accessory Show of the Year.

Dealers and Riders

Visit this Enormous Exhibition

See and inspect the products of every manufacturer. Know personally the progress achieved by the entire industry. An education worth while. Come! We want to see you.

Motorcycle Manufacturers' Association

Office at 116 So. Michigan Ave., Chicago, Ill.

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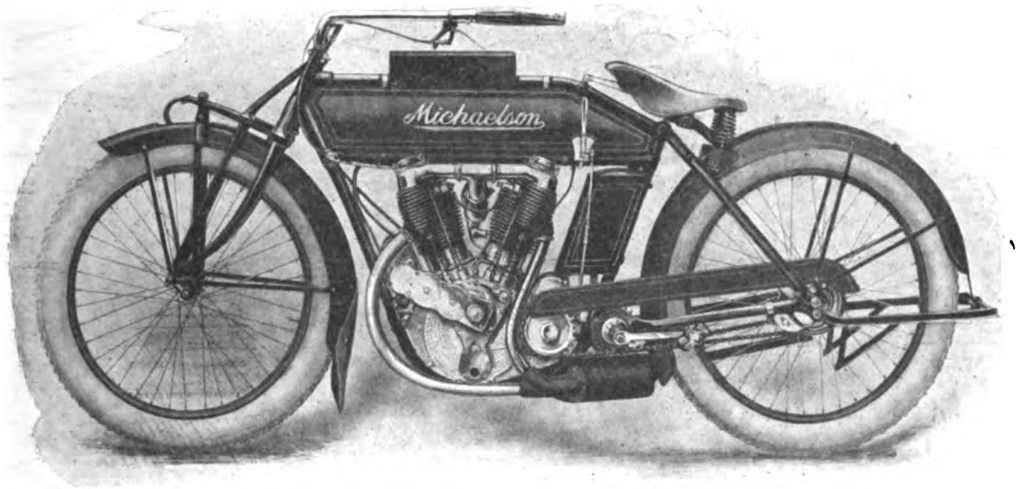


Model "10A," 10-13 H. P.

Some 1913 Michaelson Features

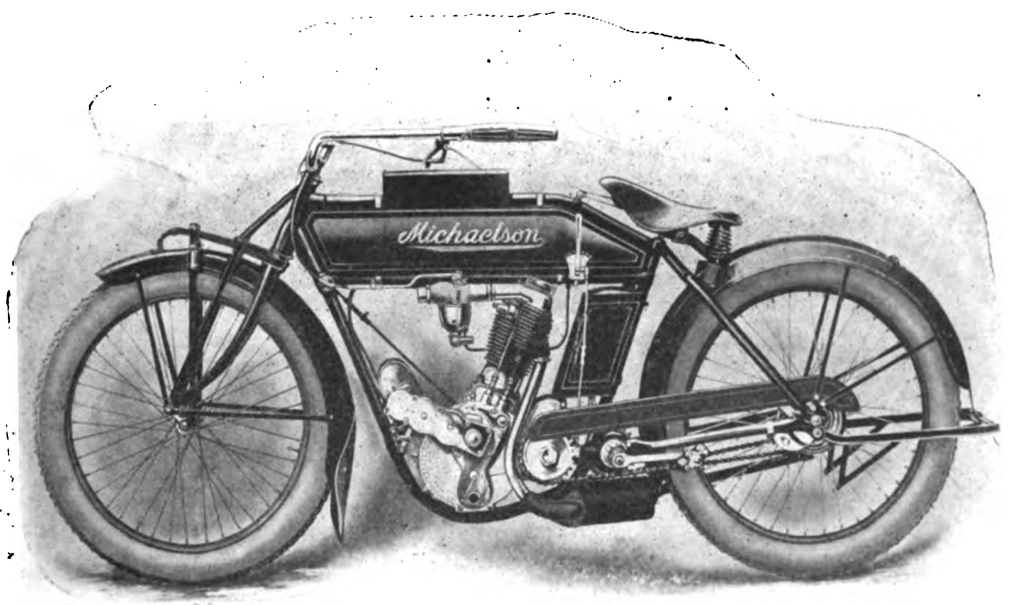
The Michaelson is the highly perfected product of an engineer whose time, brains and experience have been concentrated upon his work, and he has been the severest critic of his own product. As the designer of the Minneapolis, he built for himself the plinth of a good reputation. As the builder of the Michaelson, he is alone in his class. In its construction he has called to his aid the knowledge wrested from the sweating toil of years, the result of keen and conscientious study of road conditions and of the requirements of American riders. And now he presents the finished work for your approval. He knows the verdict beforehand.

Improved Two-Speed Gear, Extra Heavy.
Enclosed Clutch running in oil.
Clutch Control Lever on Handlebar
Mechanical Oiler, also Hand Pump.
Enclosed Rocker Arms.
Extra Heavy Roller Chain. 5/16" x ¾" pitch.
Chain Guard full length
Cushion Seat Post.
3" Tires, front and rear.
1½" Exhaust Pipe, Silent Muffler.

The Michaelson Motor Company

526-530 Fifth St. S., Minneapolis, Minn.

Send for Bulletin No. 1. It tells about our entire line.



Early Delivery. Our tricars are worthy of the dealer's investigation.

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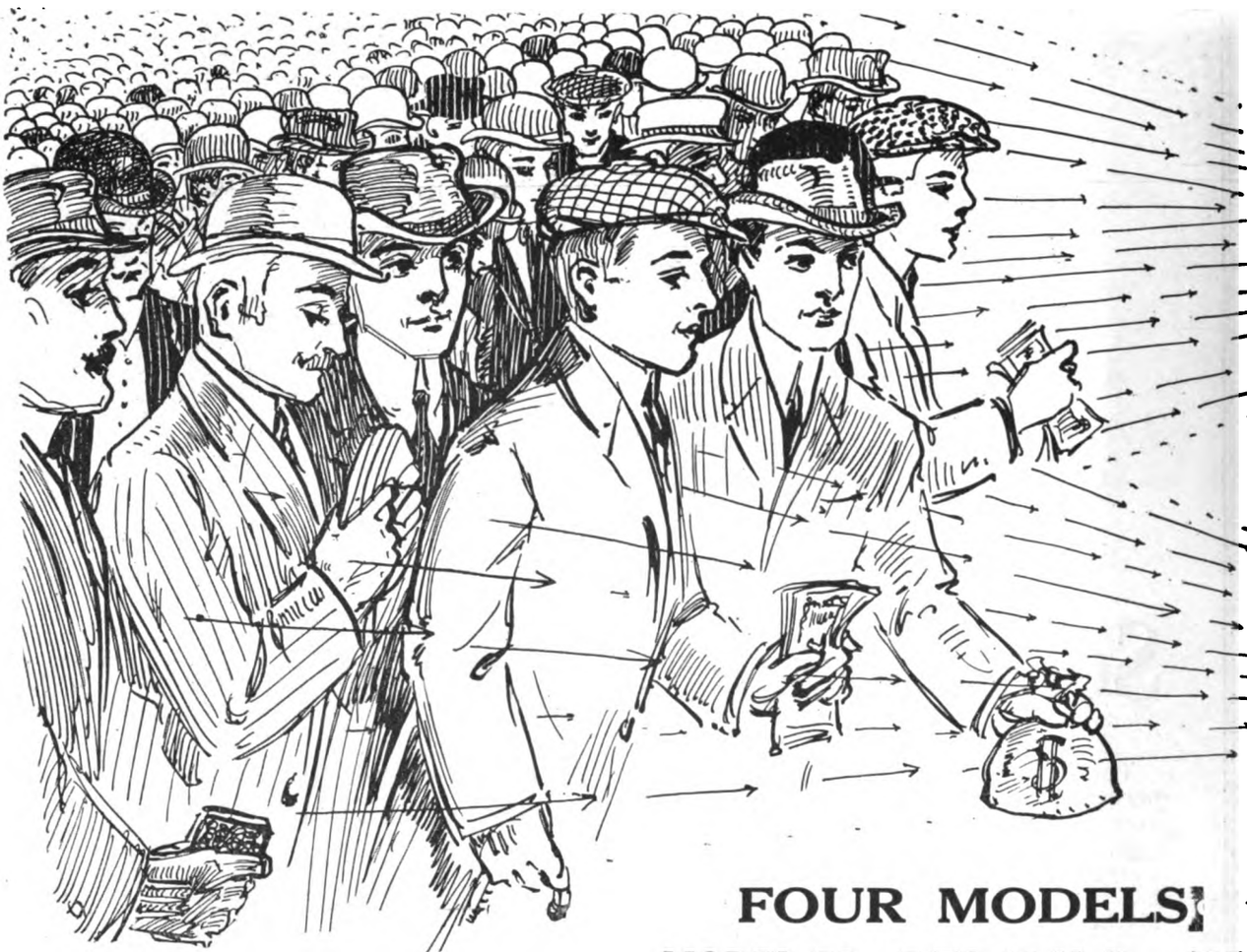
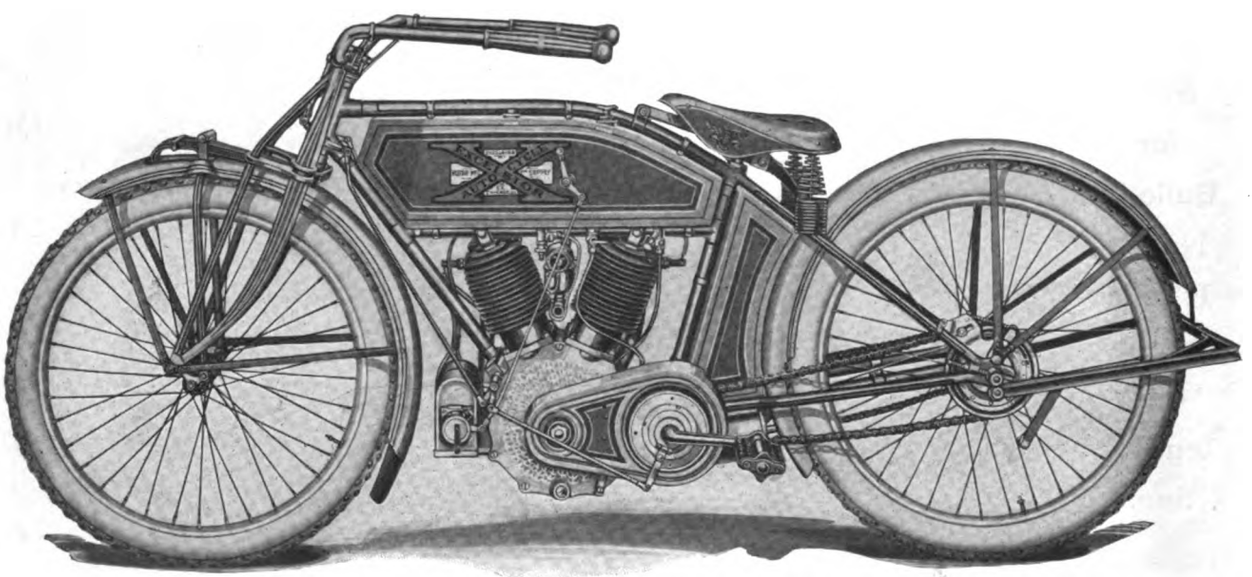


FOUR MODELS

MODEL 7C, 7 TO 10 H. P., $250
MODEL 7B, 7 TO 10 H. P., $250
MODEL 4C, 4 TO 5 H. P., $200
MODEL 4B, 4 TO 5 H. P., $200

See Us at the Chicago Show



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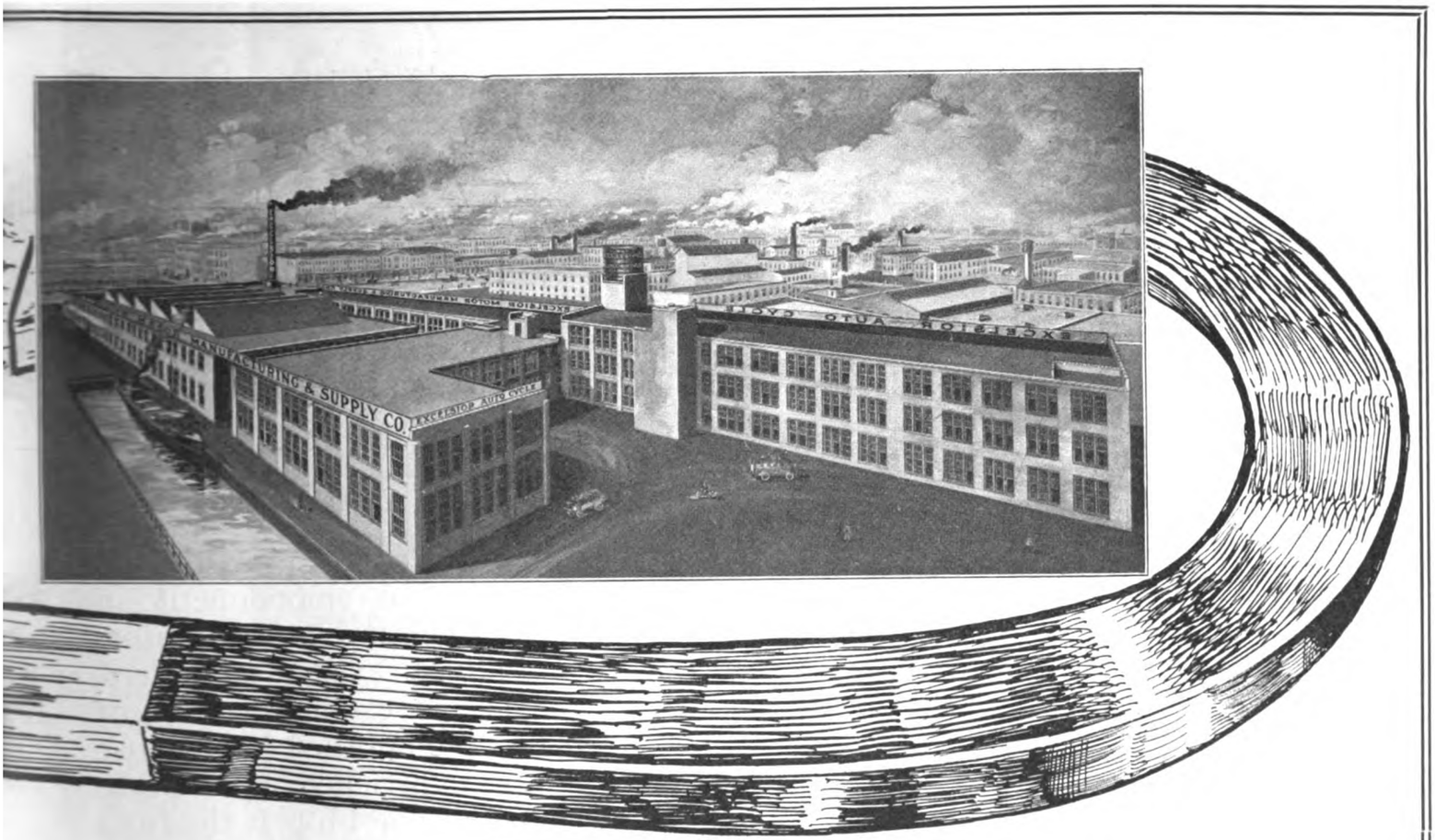

The Excelsior is the Magnet that Draws Big Business

Mr. Dealer, if you have our agency get busy and stock up now; if you haven't, act quick or it will be too late. The EXCELSIOR agency means BIG BUSINESS. It is no boastful assertion on our part when we claim that we have the STURDIEST, the FASTEST, the BEST BUILT, MOST COMFORTABLE and HANDSOMEST motorcycle built. We have a solid basis for our assertion, in that the EXCELSIOR with a motor of absolutely stock design and material, attained the long-looked for record of ONE HUNDRED MILES AN HOUR at Playa del Rey, Lee Humiston riding. Every record from one mile to 100 was broken. Consider this, Mr. Dealer. Consider the tremendous prestige this gives the EXCELSIOR agent. Consider the active publicity co-operation we are giving you. And last, but not least, consider the fact that the EXCELSIOR is a machine that needs practically no further selling argument than its RECORD and its APPEARANCE. Every Excelsior motorcycle as well as every agent ALWAYS MAKES GOOD.

So write us—better wire for our proposition.

HUMISTON'S TIME
One Mile in 36 seconds flat.

5 miles, 3.07⅗.	50 miles, 33.55⅕.
10 miles, 6.18.	75 miles, 50.55⅖.
20 miles, 13.29⅖.	100 miles, 68.01⅘.
25 miles, 16.54⅖.	

Average for 100 miles, 40⅘ seconds.

Excelsior Motor Mfg. & Supply Co. - Chicago, Ill.

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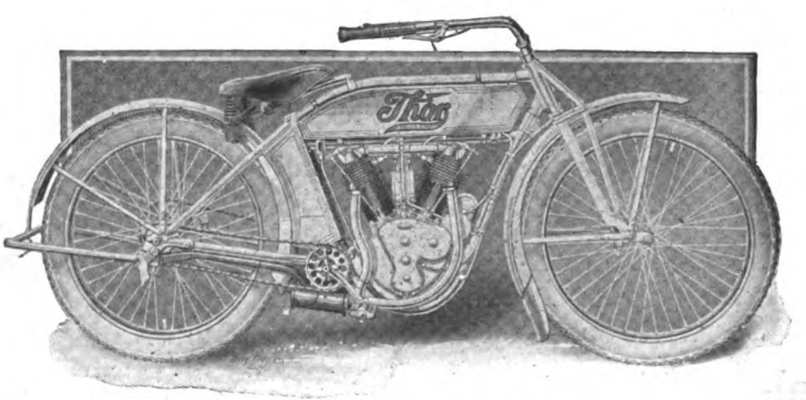
Thor

Swift *and* Silent *as a* Lightning Flash

Swift—silent—powerful, the Thor is the embodiment of everything desirable in a Motorcycle. Built by master engineers, the Thor is the exemplification of what can be accomplished by the use of brains, plus experience, plus high-class material. The Thor 4-h-p. is the fastest single cylinder Motorcycle ever made. Every detail of its construction tends towards speed—but speed is not sacrificed for durability and beauty of appearance. The New York Show failed to bring to light a more handsome, a more powerful machine than the Thor.

AURORA AUTOMATIC MACHINERY CO.



Model "13-U" $290.00

Works,

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Thor

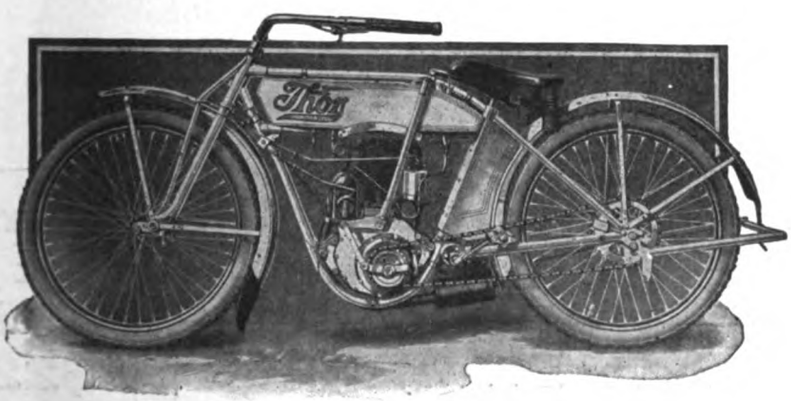
The Godlike Motorcycle

Our Model 13-U is a handsome, a graceful and a remarkably speedy machine. It appeals to the man who wants the utmost in quality and more power than he dare use. The improved Thor Clutch makes this powerful 7-h-p. twin the easiest controlled machine on the market.

TO DEALERS

We are going to show the Motorcycle riding public just how good the Thor really is, and it is up to you to profit by the tremendous publicity campaign which we have inaugurated, by making your application now. A telegram is the quickest way to clinch your territory.

Thor Building, 1317 Michigan Avenue, CHICAGO, ILL.



Aurora, Ill.

Model "13-M" $225.00

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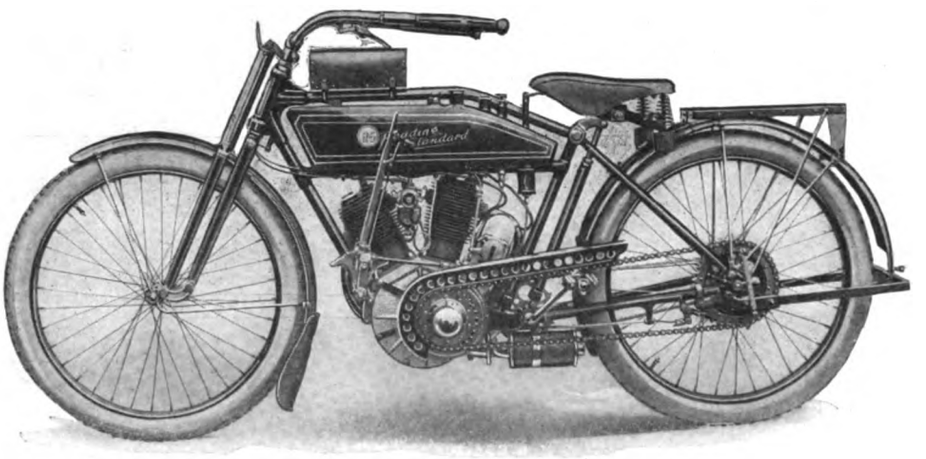

READING-STANDARD

"Built and Tested in the Mountains"

We now have contracts for 80 per cent. of our entire output for 1913.

Good live dealers still have an opportunity to secure valuable territory.

Every dealer who visited our exhibit at the New York Show conceded that our proposition is a live one.

Write for Catalog and Details

Twin, Chain Drive, $275

READING-STANDARD CO.
306-340 Water Street **Reading, Pa.**

Service-Belt Drive, $200

Tourist, Belt or Chain, $225

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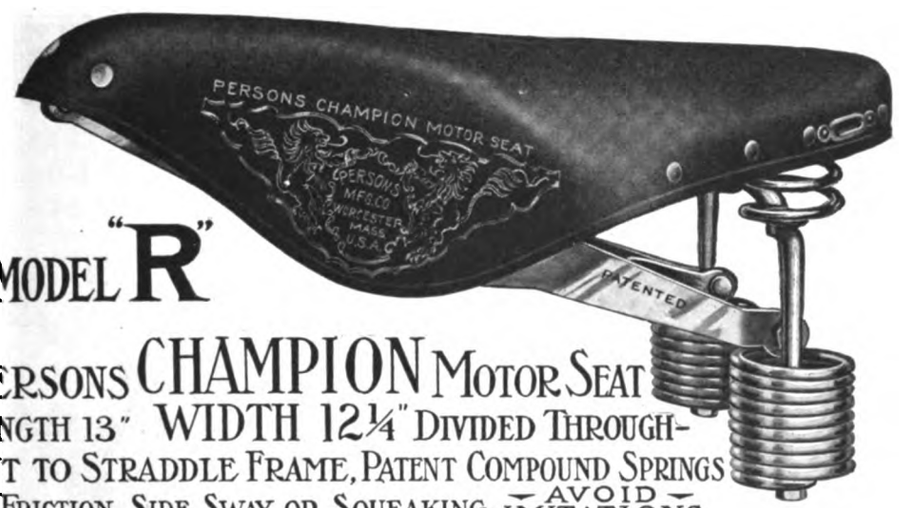
Persons Champion



MODEL "R"

PERSONS CHAMPION MOTOR SEAT
LENGTH 13" WIDTH 12¼" DIVIDED THROUGH-OUT TO STRADDLE FRAME, PATENT COMPOUND SPRINGS
NO FRICTION, SIDE SWAY OR SQUEAKING. — AVOID — IMITATIONS

PERSONS MOTOR SEATS were specified at the New York Show, on orders placed by energetic dealers, in excess of all other Seats combined, and

PERSONS MOTOR SEATS won unstinted praise from "Saddle Skeptics" and "Doubting Toms," and

What does it mean?

That better achievement, that Sterling Quality—that Solid Comfort, greater Durability, are found in the pleasing outlines of a CHAMPION 1913 MOTOR SEAT.

That PERSONS is the Master Craftsman in American Saddle building—

Insist that you get a PERSONS CHAMPION.

The Persons Manufacturing Co.

THE OLDEST MAKERS OF THE NEWEST MOTOR SEATS IN AMERICA

WORCESTER, MASSACHUSETTS

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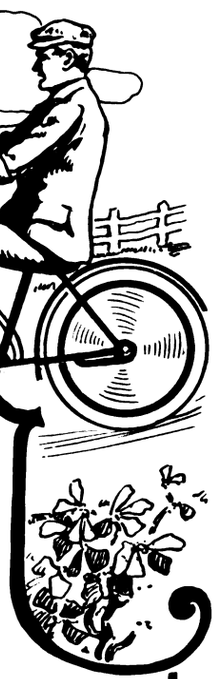
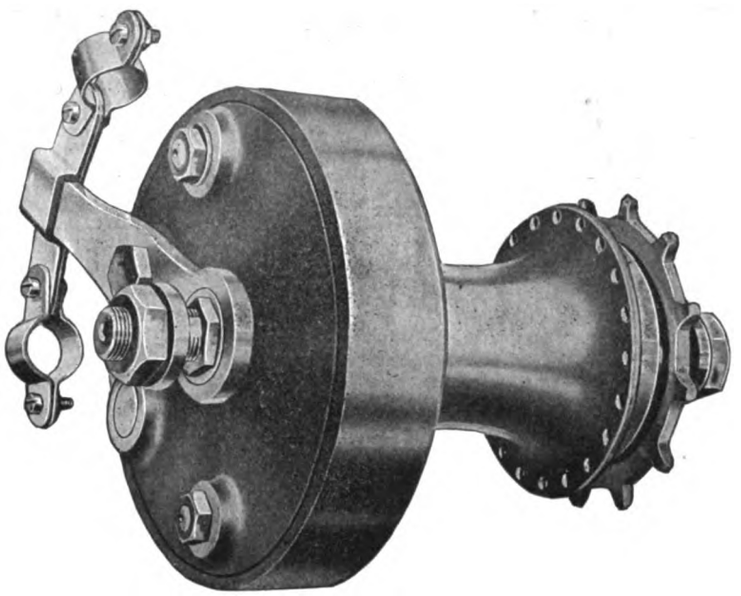
1913

NEW DEPARTURE





BELT DRIVE MODEL

Strong Enough To Hold An Automobile

The 1913 New Departure coaster brake for motorcycles gives the motorcyclist everything the autoist has or wants:—

Absolutely reliable control of your motorcycle under all conditions;

A brake that will not wind, bind or lock;

A slight back pedalling pressure will exert a retarding force of a ton and a half.

You surely want to know about this newest motorcycle device.

You are invited to see this brake demonstrated at Space No. 60, Chicago Motorcycle Show, February 3rd to 8th.

Write for fully illustrated descriptive literature.

The New Departure Mfg. Co.

BRISTOL, CONN.

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The ONLY Practical Light for Motorcycles

The rider who stays close at home for fear he will not get back before dark, misses half the joy of motorcycling.

Night riding in safety is made both possible and pleasant by the use of a large enough lamp and a RELIABLE source of brilliant light.

The Prest-O-Lite Gas Tank is the ONLY lighting equipment that meets these needs.

A gas generator, besides being a troublesome nuisance, is not reliable. Small generator lamps are too feeble.

Prest-O-Lite Motorcycle Gas Tank

Prest-O-Lite floods the road far ahead with brilliant light—shows up the bumps, ruts and puddles.

The flame neither flares up nor dies down—it is STEADY under all conditions. Turned on and off like a gas jet.

Exchange service wherever you may be is provided by over 20,000 dealers (motorcycle and automobile). We will arrange prompt service for anyone, anywhere.

The money you invest in the tank itself is not SPENT, because a genuine Prest-O-Lite Tank never gets to be second-hand, is always in demand, and is always a READY CASH ASSET.

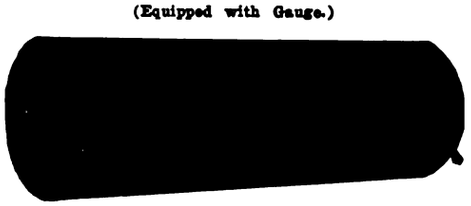
In fact, no rider can afford to be without this combined CONVENIENCE, PLEASURE and INSURANCE. One accident due to poor light might cost you more than years of Prest-O-Lite service.

You Can Easily Afford It

Prest-O-Lite service costs no more—usually costs less—than the carbide a generator consumes.

Price of Tank $10

(Equipped with Gauge.)



Dimensions: Length, 13¼ inches; diameter, 4 inches; weight, 8¼ pounds. 40 hours of light. Easily attached to any motorcycle.

Don't Let Anyone Cheat You With an Imitation

The genuine Prest-O-Lite Tank, when empty, can be immediately exchanged for a full one ANYWHERE and ALWAYS. Imitations cannot.

The dealer who slips on a counterfeit in exchange for your Prest-O-Lite Tank, gets the best of you. Don't let him!

We will not be responsible for short measure or poor gas in tanks not filled by us. Protect yourself by accepting only tanks filled by the Prest-O-Lite Company.

The Prest-O-Lite Co. 246 EAST SOUTH ST. Indianapolis, Indiana

CANADIAN GENERAL OFFICE AND FACTORY, MERRITTON, ONT.

Branch offices in all principal cities. Charging plants in all parts of the country. Extensive foreign service.

EXCHANGE AGENCIES EVERYWHERE.

Mr. Dealer: In this one ad alone there are plenty of reasons why you ought to be pushing the Prest-O-Lite Tank, for your customer's sake as well as your own.

And if you want to retain your customer's trade on other things, don't get him into the habit of going elsewhere for Prest-O-Lite exchanges.

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The strongest guarantee a manufacturer can give

"STANDARD SEAMLESS STEEL TUBING." If a manufacturer's specifications contain these words, you need no further assurance of the machine's strength and durability. That is the strongest guarantee a manufacturer can give. The use of

STANDARD TUBING

in a machine's manufacture means that no road conditions can cause the frame of that motorcycle to break. It means that wherever you may ride, on the road or track, fast or slow, the frame of your motorcycle is immune from disaster.

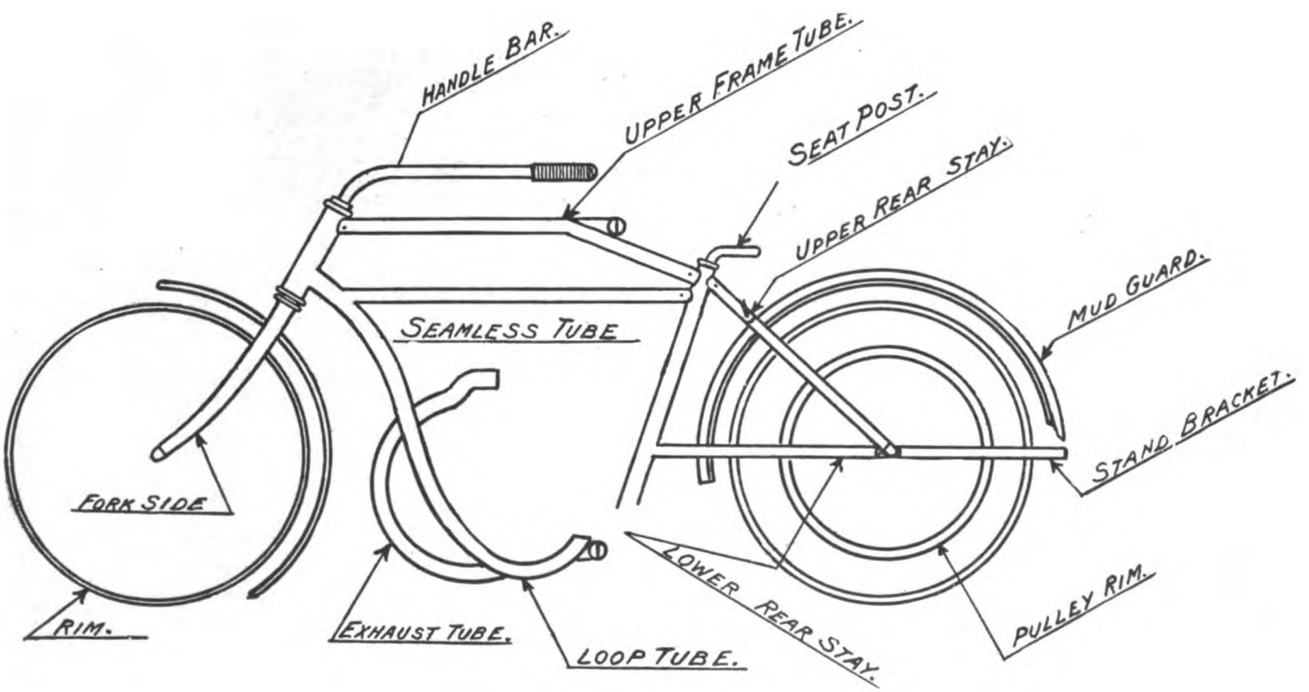
More and more manufacturers are learning that a motorcycle, in order to be built right, must have a solid foundation. That no matter how powerful the motor, how perfect the machine's construction, insofar as propelling power is concerned, if the skeleton which holds the vital parts of the machine together and must bear the weight of the rider and the impact of the road—if this frame has any fundamental weakness, the machine **must** make way for others whose ability to stand up is assured by STANDARD SEAMLESS STEEL TUBING.

We make over 75% of all frame tubing, rims and mudguards used in the United States. And we feel justified in claiming that we are directly responsible for the reputation of American motorcycles as the strongest made.

WE ARE PREPARED TO TALK 1913-14 BUSINESS NOW.

THE STANDARD WELDING COMPANY

CLEVELAND



When writing to advertisers, please mention MOTORCYCLE ILLUSTRATED.

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Strong Silent Supple

Strong, with the strength that is resistless, unfailing, ever ready to resist Nature's efforts to weaken it. Silent, with the silence of perfect co-ordination of parts. Supple, with the suppleness of highly tempered steel and that frictionless, effortless action which is the result of master workmanship—**that is**

"The Coventry" Chain

"The Motor's True Mate"

To riders who desire the height of transmission perfection—to dealers who are seeking the RIGHT CHAIN at the RIGHT PRICE—the chain that is backed by the most powerful publicity, because its makers KNOW its inestimable worth and its ultimate world-wide adoption—we offer "THE COVENTRY" CHAIN, "The Motor's True Mate."

A highly instructive catalog will be sent upon request.

Ask for one of our Tiger Pennants at the Chicago show.

Sarco Engineering Co.

112 Broad Street, N. Y.

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SEE IT AT THE CHICAGO SHOW

The New 1913 Stewart Motorcycle Speedometer

Model D
Price $12

Insist on getting this Stewart MAGNETIC speedometer
Refuse to accept an obsolete CENTRIFUGAL instrument.

This splendid MAGNETIC instrument is modeled after our high priced automobile speedometers that are world famous for accuracy, durability and beauty. It is installed on the mud-guard or extension spring as shown below—in which position it is easily read from the driver's seat and is

illuminated at night by the headlight!

See the New Front Wheel Two-Belt Drive

Simple—Strong—Trouble-Proof!

The large driving pulley is solid steel nickeled; the small pulleys, fibre. The belts are coiled steel piano wire—they ***"grip the grooves"*** in the pulleys and render slippage impossible. They will give to a strain, but cannot break. This instrument and drive has stood the most severe road tests for eight months. It's perfect.

Handsome catalog with art cover
"Motorcycling in the Yosemite"
will be mailed you free on request

Stewart-Warner Speedometer Corporation

General Offices: 1942 Diversey Blvd., Chicago
Factories at Chicago and Beloit

New York	Los Angeles	Minneapolis	Kansas City	San Francisco
Chicago	Philadelphia	Indianapolis	Cleveland	Boston
Detroit	St. Louis	Atlanta	Buffalo	Cincinnati
		Portland		

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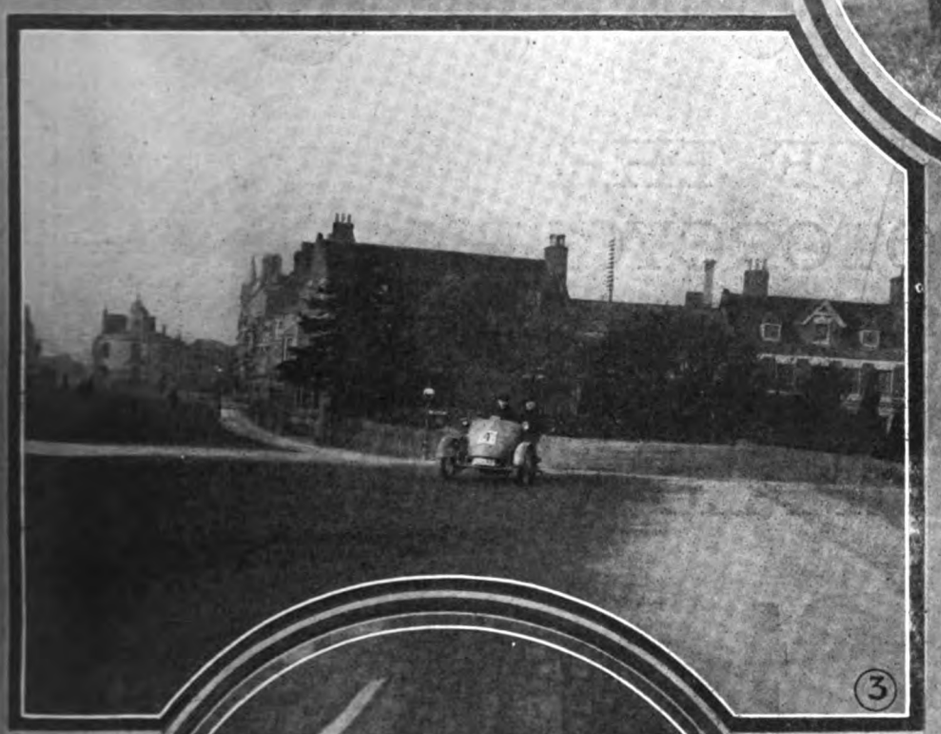

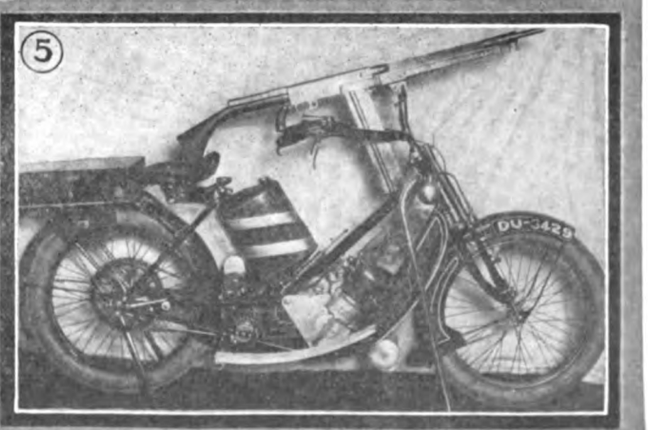

ON this page are shown four views illustrative of current motoring developments in England, and also a photograph of the Laird Menteyne Degaille machine gun, mounted on a water-cooled Scott, which attracted much attention at the recent Olympia Show. This gun weighs only 16 pounds and is capable of firing 300 rounds a minute. The idea of mounting such a weapon on a speedy motorcycle is one of the latest and most interesting refinements of the military game abroad. Picture No. 1 shows Bidlake on the starting line at Brooklands; No. 2, Meredith at Sundown control in Hertz County A. C. Winter Trial; No. 3, a P. M. C. motorette passing through Stratford-on-Avon; No. 4, Buckley nursing his triumph through the Oxford hill climb.

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41%

OF THE
MOTORCYCLES
EXHIBITED AT THE
NEW YORK SHOW WERE
EQUIPPED WITH

United States Tires

They Are Unquestionably

AMERICA'S PREDOMINANT TIRES

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VISITORS who thronged the motorcycle section of the New York Show were unanimous in the opinion that the exhibit was a fitting climax to a year of unprecedented activity, and that its significance as a forerunner of the epochal season upon which the trade is entering could hardly be over-estimated. On all sides were evidences of progress in designing, the ingenuity of factory wizards being focused, as usual, upon comfort and dependability. Abreast of the motorcycles themselves were the sidecars, holding out hitherto unknown inducements in variety of design and equipment, and hedging the other displays on all sides was the choicest crop of accessories that has sprung so far from the fertile furrows of our manufacturing field. Enthusiasm reached its high-water mark for the motorcycle trade in America.

This was New York's verdict. Still, the metropolitan display, a highly creditable feature of the greatest motor show the city has known, will in all probability be eclipsed at Chicago within a fortnight. The motorcyclist at the New York exhibit profited richly by his manifestation of interest, but he has merely seen the ball of 1913 business started on its long roll.

More than three-score and ten manufacturers of machines and accessories will be represented at the Chicago Show, which will be the first exclusive national motorcycle exhibition held in the United States. From present indications, the Show will establish a precedent for both Chicago and New York.

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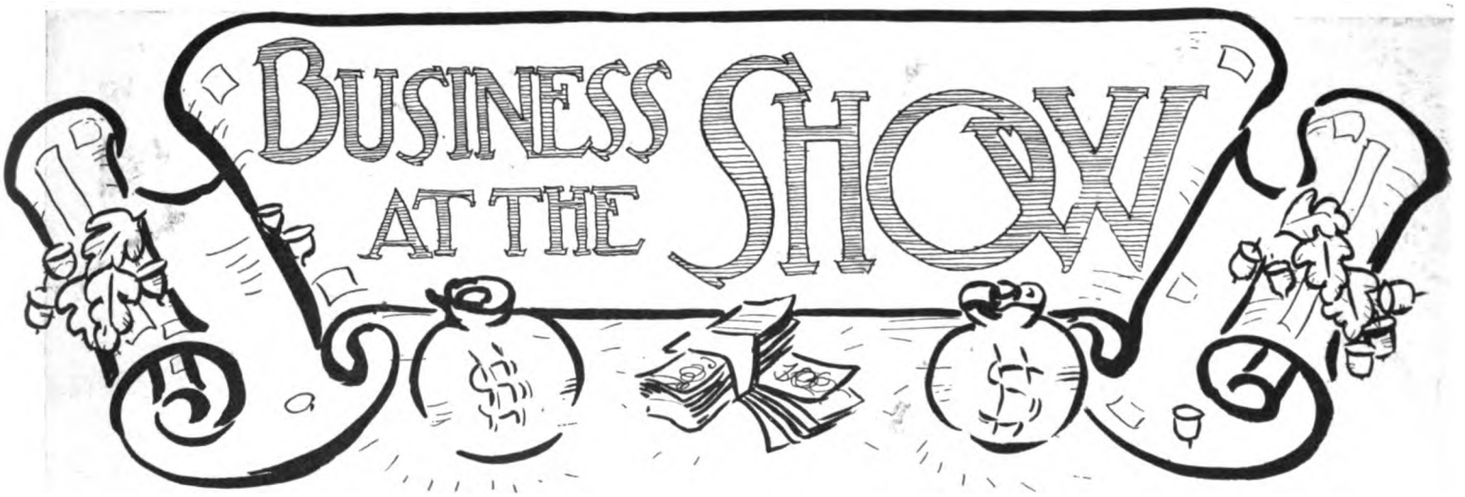

PRESIDENT CHADEAYNE, of the Greyhound Motor Company, manufacturers of Universal sidecars, is one of the many who left the show entirely satisfied with the results of his week's work. "I admit," he said, "that I came here very much in doubt as to how a $125 sidecar would figure in this year's business. But it was not long before I became convinced that both the dealers and riders thoroughly believe in quality sidecars. Although our wicker cars are high class in every particular, the business done at the show satisfies me that the sales of our best car will exceed those of the other type fully three to one. I won't tell you how many sidecars we expect to sell this year, as the figures are almost beyond belief. I know that we can sell our entire output, and that the dealer or rider who expects spring delivery on Universals had better file his order right now."

W. W. Shoemaker, Jr., who is financially interested with Mr. Chadeayne in the manufacture of Universal sidecars, has no intention of leaving Graton & Knight, as was erroneously reported last week. Shoemaker has made an investment in Chadeayne's company because of his confidenct belief that 1913 will be a big year for sidecars, and because of his strong faith in the making-good qualities of the Universal. At the same time, Spartan belts will have no heartier spokesman in the country than the selfsame Shoemaker.

SALES MANAGER KIRK took home with him orders for six carloads of 82 Excelsiors each, all for shipment to the East. Just when Mr. Kirk was informing a representative of MOTORCYCLE ILLUSTRATED that he had already taken orders for four carloads Max Sladkin, of the Haverford Cycle Company, approached. "Make it one more carload, Kirk, for the Haverford Cycle Company," said Sladkin. A sixth carload will be necessary to complete a batch of smaller orders. In this connection Mr. Kirk stated that Excelsiors were now being shipped to the coast at the rate of a carload every ten days, and that the rate of shipment would soon be increased to a carload every week. Mr. Kirk estimates that during the past four years more than 6,000 Excelsior machines have been sold and are now in use in southern California alone.

FOR three days the writer tried his level best to have a word or two with E. J. Knight, Thor sales manager. It was only by actually stepping up between the energetic Westerner and a prospective agent that greetings could be exchanged with the Aurora man. To say that Knight was busy from Saturday to Saturday, even at lunch and dinner and, yes, breakfast, too, is putting it altogether too mildly. J. D. Hurley came along about the middle of the week, and soon convinced himself that the best thing he could do would be to arrange to increase the proposed output of 1913 models. At the Thor booth were also Edward Rischel and George Rheutan.

RALPH D. WEBSTER and Messrs. Ferguson and Biddle, a triumvirate of pioneers, seemed never to tire of talking the merits of Eclipse free engines, brakes, hubs, fork-heads, etc. It must have done their hearts good to note the extent to which Eclipse free engines were equipped to the machines on show. From Mr. Webster ye scribe learned that another test suit had been instituted by the Eclipse Company with a view to establishing its patent rights to license the manufacture of the Eclipse type of clutch, and to prevent infringement of the same.

ONE of the earliest arrivals was C. A. Persons, who superintended the installation of the Persons and Majestic exhibits. At the latter booth were also W. F. Hapgood, O. A. Jones and Thomas Crabtree. Persons reported his health to be fine, business even better, and the outlook simply great. W. E. Eccles, formerly sales manager for Persons, was busy all week assisting Chadeayne at the Greyhound booth, and also lining up matters for his own Universal Novelty Company.

GEORGE W. SHERMAN exhibited blue prints of a most promising planetary two-speed, in combination with a metal disc clutch, of his own invention. The device is designed for hub fitment, is perfectly lubricated and so controlled as to make it absolutely impossible to strip the gears, as the enmeshing of the gears automatically precedes the engagement of the clutch. A machine fitted with the Sherman two-speed and free engine is now on the way East for demonstration.

Sherman believes he has a find in an electric horn operated by the magneto. This warning signal is simplicity itself, and will commend itself to the discriminating rider by reason of its substantial construction and absolute reliability. It is manufactured by the Kosmack Electric Horn Company, 299 Ocean avenue, Jersey City, N. J.

WITH a keen eye for features out of the ordinary, F. L. Valiant, of the Miami Cycle and Manufacturing Company, introduced into the show a striking novelty in the form of a human "Yellow Jacket" who, with true Oriental disregard of the attention he attracted, sat for hours astride one of the machines of that designation. "Val" reported no little difficulty in persuading the "heathen Chinee" to become an actor, as the fellow much preferred to remain faithful to his dope pipe. But the persistent Merkelite finally landed his quarry, and the yellow one occupied the saddle for hours at a stretch, totally oblivious of his surroundings, and every bit as non-talkative as the piece of mechanism beneath him.

W. G. SCHACK, of the Emblem Manufacturing Company, philosophized thusly: "Let us wait and see how the separate show works out in Chicago. I am sure that the results will be most satisfactory. But, aside from that, we have to consider the fact that we have always had rather liberal treatment at the hands of the Automobile Board of Trade here in New York. As much could not be said of the Chicago Auto Show management. I am not sure that a separate show in New York, while it would no doubt attract the dealer, would bring a large enough attendance of the general public to make it fully worth while. I think that last year's arrangement—the first week in Madison Square Garden—was the best of all in New York. The machines were displayed to advantage, and thousands who knew little or nothing about the motorcycle were given an opportunity to be agreeably surprised. Their accidental acquaintanceship with the two-wheeler resulted, I believe, in many sales. The same applies, though to a lesser extent, to this show. On the other hand, a separate show in New York, with a low admission price, and the difference in the cost of space devoted to local publicity, may be worth a trial. It really isn't easy to decide the question."

H. N. KIRK, sales manager of the Excelsior Motor Manufacturing and Supply Company, expressed himself similarly. Mr. Kirk felt quite sure that the motorcycle would be missed from the commercial vehicle end of the Chicago show, in view of the manner in which the crowd bore towards the motorcycle section of the Chicago show last year. "This is easily the prettiest show," said Mr. Kirk, "we have ever had, and the attendance of dealers at our booth has broken all former New York records. And our dealers have done well here. The floor arrangement, with the exhibtion spaces so broken up by the

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columns which support the building, is not what it should be. In Chicago, we shall have an open space, which will, of course, be much more impressive from an exhibition point of view. It remains to be seen whether it is best to make a direct appeal to those interested in motorcycles or, sandwiched in among automobiles and accessories, to have the opportunity of interesting hundreds who come to look at the big cars, and finish by purchasing motorcycles. The success of a separate show would undoubtedly depend, not only upon the publicity obtained in the city where the show was held, but as well throughout the entire section supposedly influenced by that show."

IT is estimated that about forty cycle and motorcycle jobbers were in attendance. In view of the fact that the total number of jobbers of this class in the entire country is approximately 125, the jobbing end of the trade may be regarded as having been very well represented.

L. B. LYMAN represented the motorcycle tire interests of the Diamond Rubber Company. There was shown for the first time, at the Diamond booth, the new Diamond motorcycle safety tread, constructed exactly the same as the similar cross-bar tread on Diamond and Goodrich automobile tires. Much favorable comment was elicited by the new Diamond studded tires, with their new tread and side strip stock and improved quality throughout. This tread has a center rib known as a "more mileage strip," and its makers say that it will increase the wearing qualities of the tire fully 20 per cent. The tire is made in standard sizes to fit the new rims. The construction of the 3-inch tires is unique in that it consists of four plies of fabric, with the addition of a breaker strip at the base of the tread, practically making five plies.

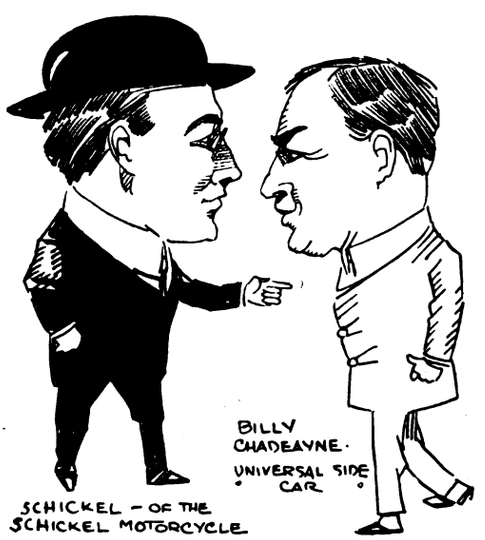
GENERAL C. EDGAR MURRAY gave a dinner in the Nimrod Room of the Hotel Astor on Monday to the branch managers of the Empire Tire Company, of Trenton. About thirty were present, and the dinner was followed by a business conference. Reports were rendered, and plans for the season discussed. The Empire Company's exhibit was at Madison Square Garden, with J. B. Frisbie, of the Cleveland branch, in charge, he was assisted by Branch Managers McKay, Todd, Shadburn, Weiland and Richison, of the Chicago, New York, Boston, Indianapolis and Philadelphia branches, respectively. The company has just gotten out a new tread of the non-skid type, and so designed and constructed as to serve equally well on smooth city pavements and rough country roads.

NO one, whether or not interested in motorcycles, passed the Henderson booth without stopping at least a moment to admire the graceful lines of the popular four-cylinder machines. President T. W. Henderson was assisted by R. W. Wheat, J. Bice and C. Goffner in pointing out to interested ones the many original features of the three 8-horsepower chain-driven models occupying the Henderson booth. The ladies were seen to cast longing glances at the tandem model, different from anything else on the market in that it is made a tandem before and not after it leaves the factory.

AN Indian motorcycle was recently stolen from the New York Telephone Company's garage, at 207 South State street, Syracuse, N. Y. The engine number is 80-D-262.

IN the matter of nifty printed matter, ye scribe feels safe in declaring that none "had it on" the Davis Sewing Machine Company or the Miami Cycle & Manufacturing Company. The catalogs and pamphlets issued by these two concerns are real works of art, and one feels a genuine pride in the trade when handling such fine examples of typographical beauty. Representing the Davis Sewing Machine Company were the Huffmans and Messrs. Howe and Hinds. Explaining the self-starter, two-speed gear and the other striking features of the 1913 Merkel were President K. R. Jacoby, Joe Merkel, F. L. Valiant, J. W. Ash, W. K. Aurandt C. A. Van Doren, C. R. Mershon, W. M. Sheets, H. C. Mapp, F. B. Widmayer and C. G. Lee.

D. R. NIVER, of the Aermore Manufacturing Company, announced the marketing of a new sidecar, described and illustrated elsewhere in this issue. The Aermore Company, whose musical exhaust horns and motorcycle locks have achieved popularity wherever motorcycles are used in this country, is planning an extensive motorcycle accessories cam-



paign, featured by its promising sidecar models. In addition to Mr. Niver, there were in attendance at the show in the interests of the Chicago concern Messrs G. V. P. Lansing, R. P. Lightfoot, H. B. Jones and G. V. Wilson.

ACCORDING to W. F. Hapgood, of the Majestic Manufacturing Company, makers of Majestic sidecars and delivery vans, two widely separated parts of the country have thus far afforded the best markets for commercial two-wheelers, viz., the Northern section of the Pacific coast, and the South near Chattanooga and Birmingham. Mr. Hapgood attributes this rather remarkable condition to the fact simply that the dealers doing business in the two mentioned districts go about the task of introducing motorcycle vans in an intelligent, business-like manner. There is no reason, in Mr. Hapgood's opinion, why dealers in all other parts of the country should not be equally successful. The Majestic van and pleasure sidecar are interchangeable, the same chassis being used on both. The change from one to the other can be made in fifteen or twenty minutes.

CORBIN-BROWN speedometers constituted the show equipment of eight different makes of machines.

TRADE LUNCHEON

At the Astor Thursday Noon—Best Attended of Any—Wainwright Toastmaster.

MORE than 150 trade folk enjoyed the hospitality of the Cycle Parts and Accessories Association at a luncheon at the Hotel Astor Thursday noon. Every seat in the banquet hall was occupied when, after the dessert, coffee and cigar portion of the gastronomic program had been reached, Toastmaster Wainwright introduced W. H. Crosby, of Buffalo. Mr. Crosby set an example of brevity to which all of the succeeding speakers faithfully adhered, and the oratory of the occasion was thus disposed of in record-breaking time.

Mr. Crosby stated that these affairs reminded him of an Old Home Week, in that they brought together every now and then scores of kindred good fellows of a trade whose "middle name" was good fellowship. Taking the cue from Mr. Crosby's suggestion, the toastmaster extended an invitation to all to attend the midsummer meeting in Atlantic City early in August next.

Robert Leacock, of St. Louis, spoke for the jobbers, and "got away" with it in about four sentences and thirty seconds by the clock. He insinuated that he didn't know why he had been called upon, unless for the fact that he was far away from home, and had no friends here. That the reorganized jobbers' association would now rapidly forge ahead was his confident belief, he concluded.

Leacock's views were echoed by John Henry, of the Vim Cycle & Hardware Company, of Buffalo. Mr. Henry called the attention of his audience to the fact that the Jobbers' Association had just adopted a resolution denouncing the issuance of syndicate catalogs. This welcome news was enthusiastically received.

Secretary Hardin, of the M. M. A., "handed it over to Coffman," and the latter made a hit with his enthusiastic recommendation of the Chicago Show. "If you'll all come," he urged, "and pay your quarter, it will help to beat the band."

Arrangements for the luncheon were made by Dave Smith and Charlie Moorehouse, of the Standard Company. "Uncle Dave," at the luncheon, at the show, everywhere, in fact, proved himself, as he has for a generation in the past and is likely to for another generation, a prince of good fellows. But why mention the fact? Everybody knows it only too well.

ARTHUR DAVIDSON received a letter from the factory stating that the number of deliveries of 1913 Harley-Davidsons had already reached the 4,000 mark, about double the total which had been attained this time last year.

A TELEGRAM was received at the Consolidated booth from Jesse Campbell, who is now covering the far Northwestern corner of the country, that he had just closed a big contract with E. E. Peterson, in Tacoma, Wash.

BIG RACE SUGGESTED.

INTEREST has been aroused in the proposal of Don Lee, a motorcycle dealer of Los Angeles, Cal., to hold a road race from Los Angeles to San Francisco. The date suggested for the run is July 4. Lee has offered to contribute a good round sum toward a purse.

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AT THE HOTEL ASTOR TRADE LUNCHEON

J. E. Talty, Racine Rubber Co.
H. L. McClaren, Racine Rubber Co.
H. Mesinger, H. & F. Mesinger Manufacturing Co.
W. J. Surre, Continental Rubber Works.
W. W. Totman, Whitney Manufacturing Co.
W. E. Eccles, The Universal Manufacturing Co.
E. W. Beach, Manufacturers Foundry Co.
F. C. Fromm, Manufacturers Foundry Co.
W. M. Butler, Whitney Manufacturing Co.
J. C. Manternach, Standard Welding Co.
R. F. Kelsey, *Bicycle World & Motorcycle Review.*
F. R. Palmer, Continental Rubber Works.
A. M. Scheffer, A. M. Scheffer.
W. H. Miller, Atlas Ball Co.
T. J. Heller, Atlas Ball Co.
W. F. Emerson, Buffalo Metal Goods Co.
George W. Nock, George W. Nock Co.
R. J. Leacock, R. J. Leacock Sporting Goods Co.
F. L. Watters, Chicago Handle Bar Co.
Wm. R. Pitman, F. A. M. referee.
E. J. Lobdell, The American Wood Rim Co.
L. H. Cornish, *Pacific Motorcyclist.*
Wm. J. Buckley, Albany Hardware & Iron Co.
C. N. Andrews, W. D. Andrews Co.
Ellsworth A. Hawthorne, Hawthorne Mfg. Co.
W. E. Foskett, Albany Hardware & Iron Co.
W. D. Andrews, W. D. Andrews Co.
Jay A. Rickard, Jay A. Rickard Co.
DeWitt Page, The New Departure Mfg. Co.
Fred I. Johnson, Iver-Johnson Arms & Cycle Works.
B. A. Edgar, Pope Manufacturing Co.
D. P. Harris, D. P. Harris Hardware Co.
Wm. Holland, Henry Keidel & Co.
D. L. Spraker, Kokomo Rubber Co.
Stanley Wilson, D. P. Harris Hardware Co.
F. W. Starr, Pope Manufacturing Co.
L. D. Harden, Pope Manufacturing Co.
F. E. Bassett, Corbin Screw Corp.
Charles M. Hobbs, Haverford Cycle Co.
W. C. Roby, Diamond Chain Co.
W. F. Carroll, Utica Cycle Co.
E. C. Bowman, Corbin Screw Corp.
Keyser Fry, Keyser Fry.
A. H. Harrop, Corbin Screw Corp.
Milton R. Brown, Fisk Rubber Co.
M. J. Carroll, Utica Cycle Co.
A. E. Griffith, The New Departure Mfg. Co.
J. P. Lamb, The Starr Bros. Bell Co.
R. H. Winship, Chas. E. Hall Co.
R. W. Dick, Louis Rastetter & Son.
N. Van Cleef, Van Cleef Bros.
Clinton Lovell, K. & C. Manufacturing Co.
F. T. Chase, Frank Mossberg Co.
W. H. Townsend, Frank Mossberg Co.
T. W. Scott, Louis Rastetter & Son.
Frank Mossberg, Frank Mossberg Co.
Walter I. Tuttle, Frank Mossberg Co.
C. L. Elyea, Elyea-Austell Co.
A. M. Persons, Persons Manufacturing Co.
C. A. Persons, Persons Manufacturing Co.
Wm. H. Grover, Wm. H. Grover.
W. D. Alexander, Alexander-Seewald Co.
Palmer Walthour, Walthour & Hood.
L. J. Hood, Walthour & Hood.
W. B. Grover, W. H. Grover.
Geo. H. Empsall, Duckworth Chain & Mfg. Co.
J. Duckworth, Duckworth Chain & Mfg. Co.
J. P. Thornley, Chairman F. A. M. Comp. Com.
C. K. Anderson, Hastings & Anderson.
J. M. Huffman, Davis Sewing Machine Co.
F. T. Huffman, Davis Sewing Machine Co.
A. B. Coffman, American Wood Rim Co.
F. I. Willis, Hearsey-Willis Co.
Ralph D. Webster, Eclipse Machine Co.
Wm. H. Crosby, The Crosby Co.
L. M. Wainwright, Diamond Chain & Mfg. Co.
George M. Hendee, Hendee Manufacturing Co.
F. A. Baker, F. A. Baker & Co.
C. J. Welch, United States Tire Co.
M. C. Stokes, United States Tire Co.

OFFICERS RETAINED

Cycle Parts and Accessories Association Re-elects Staff at Busy Session During New York Show Week.

PRESIDENT L. M. WAINWRIGHT, Vice-president David B. Smith, and Treasurer W. J. Surre, of the Cycle Parts and Accessories Association, were re-elected at the meeting held in the Hotel Astor, New York City, on January 16. C. E. Morehouse, of the Standard Company, was chosen to succeed Louis Schwab as secretary, Mr. Schwab having announced his disinclination to serve for another term.

With a view to broadening the scope of the organization steps were taken to revise the constitution and by-laws, and President Wainwright was authorized to appoint a special committee whose duty it will be to interest motorcycle manufacturers in the association. Vice-president David Smith, Treasurer Surre, and DeWitt Page were named as a committee to make arrangements for the annual convention of the Cycle Trades Industries. The assembly will be held in Atlantic City early in August.

President A. B. Coffman, of the Motorcycle Manufacturers' Association, discussed the work and plans of the Dealers' Information Bureau in an interesting address before the Cycle Parts and Accessories members, and called attention to the fact that the latter can advance the interests of the bureau materially by making the most of their opportunities for co-operation.

T. J. Sullivan, *Motorcycling.*
G. C. Gaillard, United States Tire Co.
A. Perrin, *Motorcycling.*
Fred C. Havener, United States Tire Co.
G. W. Shroyer, G. W. Shroyer & Co.
S. Edward Rose, Barker, Rose & Clinton Co.
H. C. Robinson, Corbin Screw Corp.
Walter S. Tullis, Continental Rubber Works.
D. B. Day.
George H. Greiss, George H. Greiss.
J. F. Beck, Supplee Hardware Co.
Wm. V. Sauter, Edw. K. Tryon Co.
W. P. Swartz, W. P. Swartz.
F. B. Parks, F. B. Parks Co.
R. B. Gingland, Williams Manufacturing Co.
W. H. Wolfe, W. H. & L. C. Wolfe.
Fred H. Wood, Buffalo Specialty Co.
Martin J. Cabana, Buffalo Specialty Co.
M. S. Turpe, Bevin Bros. Manufacturing Co.
W. S. Gilbreath, Hearsey-Willis Co.
D. Gottlieb, City Supply Co.
Charles Zehner, City Supply Co.
George Davis, Broadway Bicycle & Auto Supply Co.
S. Ghiz, Broadway Bicycle & Auto Supply Co.
E. John Greer, Broadway Bicycle & Auto Supply Co.
G. W. Decker, Erie Rubber Co.
M. M. Deem, The Reading Saddle Co.
D. F. Printz, The Reading Saddle Co.
A. Scaison, Progressive Cycle Co.
Elias Pitzele, Progressive Cycle Co.
W. G. Schack, Emblem Manufacturing Co.
G. M. Biddle, Eclipse Machine Co.
J. C. Ferguson, Eclipse Machine Co.
H. T. Roberts, Manufacturers' Agent.
H. N. Kirk, Excelsior Motor Mfg. & Supply Co.
Henry Horton, Henry Horton.
F. Schwinn, Excelsior Motor Manufacturing Co.
John W. Henry, Vim Cycle & Hardware Co.
J. W. Grady, J. W. Grady & Co.
L. G. Sigourney, The New Departure Mfg. Co.
H. G. Davidson, Troxel Manufacturing Co.
Max M. Sladkin, Haverford Cycle Co.
W. F. Bartlet, Wolverine Leather Goods Co.
R. S. Preble, Manufacturers' Supplies Co.
H. A. Skinner, Schickel Motor Co.
Arthur Davidson, Harley-Davidson Motor Co.
B. A. Quayle, Standard Welding Co.
W. A. Githens, Federal Rubber Manufacturing Co.
F. W. Grubb, Excelsior General Supplies Co.
G. H. Bammann, Manufacturers' Supplies Co.
D. B. Smith, The Standard Co.
C. A. Wigmore, Manufacturers' Supplies Co.
Robert H. Schickel, Schickel Motor Co.
J. Leo Sauer, MOTORCYCLE ILLUSTRATED.
G. H. Hamilton, Federal Rubber Manufacturing Co.
W. P. Farrell, J. W. Grady & Co.
C. E. Morehouse, The Standard Co.
W. H. Dayton, The Standard Co.
J. H. Graham, The Standard Co.
G. E. Hammann, The Standard Co.
M. J. Horton, The New Departure Mfg. Co.

JOBBERS' MEETING

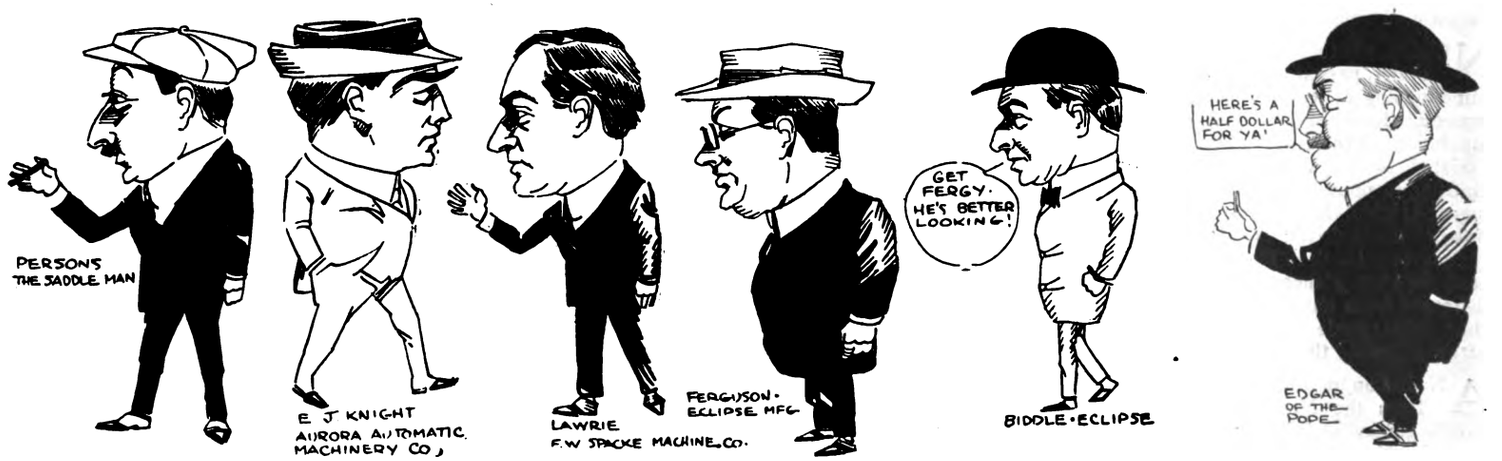
MOST important among the actions taken by the Jobbers Association at its mid-winter session last week was the passage of a resolution expressing the organization's disapproval of the issuance of so-called syndicate catalogs, and calling upon the manufacturers and dealers to decline to patronize them. This action on the part of the Jobbers' Association naturally meets with the heartiest commendation of those who will be benefited by a diminution of this trade evil.

The meeting adopted a constitution and by-laws, and voted in favor of incorporating the association in Indianapolis, under the laws of the State of Indiana.

President F. I. Willis, of Indianapolis, occupied the chair.

ROCHOW-ROSQUIST

AMONG those who were the recipients of particular congratulations was A. Rochow, of F. A. Baker & Co. On December 28, at Richmond Hill, Mr. Rochow brought to a close the days of his bachelorhood. Mrs. Rochow was formerly Miss Magda M. Rosquist.



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MORE BOSCH SERVICE.

THE lack of sufficient show space having induced them to forego their usual part in the automobile Shows, the Bosch Magneto Company devised a new plan to assist the exhibiting makers of cars and motorcycles using Bosch magnetos. Heretofore the Bosch stands have been open particularly for the convenience of exhibitors, who referred their customers, actual or prospective, to the engineers in charge for detailed advice and demonstration. This year an extensive exhibit of all forms of Bosch instruments was held, during Show Week, at the office of the company, Forty-sixth street, west of Broadway, and the technical men were on hand there.

In addition, 146,000 special booklets, each descriptive of the Bosch magneto used by the manufacturer on his product, were prepared for the car and motorcycle manufacturers to give those who visit the exhibits in search of ignition advice and construction. The books called for the preparation of considerable type matter and the project was made possible by the fact that the majority of manufacturers employ Bosch ignition.

NEXT YEAR'S SHOW . . . .

AS in former years, a great variety of opinions was expressed in reference to next year's program in New York. Exhibitors were all in agreement, though, on the point that the measure of success of the separate show in Chicago would, to a large extent, determine the Manufacturers' Association's decision in regard to the 1914 show in New York. Confidence in the outcome of the Chicago exhibition was general, and not a few seemed to feel that the Chicago precedent would be adopted in New York, if not next year, then at least in the near future.

MANY DEALERS THERE.

IT was a first-class show with reference to the number of dealers in attendance. There seemed to be twice as many as there were in Gotham during the week of the 1912 show. They came from as far south as Birmingham and Atlanta, and from all parts of New England, New York State and the Middle West. . . .

R-S STOLEN.

A READING-STANDARD twin 1912 model, finished in green, was stolen Tuesday, in New York City, from T. Beyer, 655 Lenox avenue. Mr. Beyer offers a reward for the recovery of the machine.

B. C. MOSS, of 3308 Eighth street, Meridan, has been appointed State F. A. M. Commissioner of Mississippi by President Patterson.

MANUFACTURERS MEET

Action Looking to Recovery of Excess Freight Charges Features New York Session of M. M. A.

MEMBERS of the Motorcycle Manufacturers' Association gave special attention to the freight rates situation at their mid-winter meeting held in the Hotel Breslin, New York City, January 15, but time was found for detailed consideration of several other matters with which manufacturers are vitally concerned. In connection with the freight rates discussion three new members were added to the traffic committee, Messrs. Duggan (Hendee Mfg. Company), Murray (Harley-Davidson Motor Co), and Brown (Miami Cycle and Mfg. Co.). The committee has made arrangements to meet in Chicago, February 4, when a plan will be perfected to assist dealers in the recovering excess freight charges they have paid on motorcycles in Western classification territory. This action follows the recent decision of the Interstate Commerce Commission that the railroads were not justified in collecting the full rates that have been imposed.

A report submitted by the committee on tariff was to the effect that a protest has been filed with the United States Senate against the recently proposed reduction in the tariff on motorcycles. The committee is made up of W. G. Schack, Col. George Pope and David B. Smith. The committee in charge of the organization's plans to have an effective display of motorcycles at the Panama-Pacific Exposition at San Francisco in 1915, reported that it has communicated with United States Commissioner Baker, and that official information as to what steps will be necessary to provide for the display is now being awaited.

An interesting report was submitted relative to the results that have been obtained by the Dealers' Information Bureau. It was shown that the bureau has 1,300 dealers on its list, and that there has been a rapid and consistent increase in the interest manifested in the efforts of the bureau officials.

Following is a list of those who were in attendance at the meeting: President A. B. Coffman, L. D. Hardin (Pope Mfg. Co.), E. J. Knight (Aurora Automatic Machinery Co.), R. L. Hinds (Consolidated Mfg. Co.), W. G. Schack (Emblem), H. N. Kirk (Excelsior), Arthur Davidson (Harley-Davidson Motor Co.), Frank J. Weschler (Hendee Mfg. Co.), A. S. Deyscher (Reading Standard Co.), T. W. Henderson (Henderson Motor Co.), F. L. Valiant (Miami Cycle & Mfg. Co.), W. A. Johnson (Pierce Cycle Co.), N. F. Schickel (Schickel Motor Co.).

Applications for membership were received from the Excelsior Cycle Co. and the Allied Motors Corporation, of Chicago, and both firms were taken under the association's banner. The next meeting of the manufacturers will be held at the New Southern Hotel, in Chicago, at 10 a. m., on February 5.

HENDERSON ADDITION

ADDITIONAL evidence of Henderson activity is contained in the announcement that the Detroit firm has arranged for the erection of a plant extension 90 by 75 feet. The new structure, affording 12,000 square feet of space, will be devoted to the brazing and shipping departments. This extension makes it possible for the Henderson folks to install twenty-five more machine tools, and facilitate the output proportionately.

YELLOW JACKET ARRIVES.

BY way of celebrating the arrival of Mademoiselle Yellow Jacket, F. J. Barr, of Davenport, distributor for the Flying Merkel in Iowa, entertained his friends and patrons in his salesrooms. Prior to the entertainment Mr. Barr started the new mount at the bottom of a 37 1/3 grade and had no difficulty in reaching the top. Mr. Barr has just returned from a 700-mile trip through Iowa which he made on the 1913 Merkel.

A CORRECTION.

ON page 48 of the January 9 issue, in an advertisement of the Twentieth Century Manufacturing Company, it was erroneously stated that the back of the bicycle model No. 2 opens to permit cleaning of the lens. This applies instead to the motorcycle searchlight No. 102, the opening of the back being only one of the attractive features which characterize the 1913 Twentieth Century searchlights.

SOCIAL AND ELECTION

AT the semi-annual meeting of the San Jose Motorcycle Club, recently held at the club rooms, officers for the ensuing six months were elected. There was a good attendance of members, and at the close of the business session refreshments were served and a delightful social hour was enjoyed. Following are the officers elected: President, H. Sofge; vice-president, J. Pogue; secretary and treasurer, J. C. Harris; captain, H. F. Manchester; first lieutenant, E. House, and second lieutenant, W. Herman. D. Dangerfield and C. D. Reade were named members of the executive board.

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Makers of Show History

PERSONAL SIDELIGHTS ON THE MEN WHO HANDLE THE MOTORCYCLE & ALLIED EXHIBITS

BIG CHIEF THERE

GEORGE M. HENDEE, the very picture of good health and the personification of a wonderful dream realized, attended the trade luncheon at the Astor Thursday noon. Mr. Hendee, though modest almost to a fault, impresses one immediately as a fine type of successful manufacturer and business executive. When in conversation with President Hawthorne, of the Hawthorne Manufacturing Company, makers of Old Sol lamps, the latter recalled having recently seen a photograph of the Indian chief in racing togs astride a bicycle. Nor is it so very long ago that the picture referred to was taken. Since that time Mr. Hendee has organized and developed a manufacturing business worth several millions, and is at the head of a factory having a daily capacity of more than 200 motorcycles, which are sold and ridden in all parts of the world. The story of these few years is nothing less than a business romance of a simply astounding character, supplying one more proof of the adage that truth is stranger than fiction.

THE R.-S. STAFF

DEMONSTRATING the many merits of the green and brown beauties which decorated the Reading Standard booth were Engineer Franklin Dolt, G. E. Atkins, William R. Spear, Jene Coughlin, of the Riverside Garage here, and Harold King. President A. S. Deysher was also on hand as was W. F. Remppis, though for the first time in many years not actively engaged in signing up R-S agencies. There is no gainsaying the fact that the R-S 1913 models carry conviction on the score of their combining, to fine advantage, elegance in appearance with sturdiness and power.

GALE'S EMBLEM

ASSISTING W. G. Shack at the Emblem booth were H. R. Lark, W. Hudson, H. F. Seamark and M. E. Gale. The latter's transcontinental travel-stained machine, with its mud-plow, luggage carriers and other equipment, told the story of Emblem sturdiness more effectively than the best line of arguments possibly could. Mrs. Shack was also a much interested visitor.

G. & K. ET ALS

SPARTAN belts, of Grafton & Knight manufacture, were boosted by Superintendent F. H. Willard and Motorcycle Sales Manager W. W. Shoemaker, Jr. President A. B. Coffman, of the F. A. M., represented the American Wood Rim Company, and the Bear Motorcycle Chain Tool Company. H. Guernsey Van Ripèr, of Indianapolis, F. A. M. publicity man, spent a day or so at the Show stocking up facts and enthusiasm for his widely-read weekly bulletins. Sales manager Williams represented the Mott Wheel Works, and "Lon" Sproker, Kokomo tires.

SCHICKEL DEMONSTRATIONS.

NOEBERT H. SCHICKEL, G. Benziger, William C. Schickel, Leo J. Carling, Howard Skinner and Clifford Wright demonstrated to many deeply interested folk the only two-cycle models on exhibition. As at the Chicago Show last year, a demonstrating model was kept in almost constant service on the streets in the vicinity of Grand Central Palace, and attracted much favorable comment from the curb on account of its smooth-running qualities and its absolute quiet.

H. T. AND MRS. ROBERTS

H. T. ROBERTS, manufacturers' agent, was accompanied by Mrs. Roberts. At the expense of making a personal remark, a practice which Mrs. Roberts informed the writer was not good form, the fact that Mrs. Roberts easily proved herself the most charming woman ever attending the New York Show, simply cannot be denied. Mrs. Roberts arrived in New York in advance of the opening of the Show, and did not leave until Thursday night. Roberts showed an extensive line of standard accessories, and lined up a number of Eastern jobbers for healthy-looking orders. The leading motorcycle manufacturers' agent in the country, in position as he is to accurately gauge the trade situation, did not hesitate to predict a 1913 business of simply remarkable proportions.

FOUR MORE EXHIBITS

W. T. MARSH, George P. Jenkins and Henry Heyer, representing the American Motor Company, demonstrated the M. M. and Eagle. Nearby, J. J. McGurkin and M. F. Hansley, Jr., showed, and what is more, sold Simplex sidecars. Across the hall, under the direction of Percy B. Pierce, W. A. Johnson and S. E. Weiner, the Pierce single and four were on display. Further down the line, Jimmy Baxter gave vent to a lot of genuine Scotch enthusiasm over the fact that he had just closed with a Detroit manufacturer for 200 Baxter sidecars. As Baxter put it, referring to the big increase in the number of firms turning out sidecars: "Let 'em come; it will take a score of us to supply the demand."

AT THE POPE STAND

AN interesting lay-out of motors and parts added to the attractiveness of the Pope exhibit, which was effectively demonstrated by Special Representative B. L. Edgar, L. C. Hardin, Assistant Manager Starr, Superintendent Hinsman, H. A. Lienhardt, R. H. Smith, of the traveling staff; Fred Mercer, K. C. Conklin, C. Burbank, F. R. Carpenter, C. H. Clark, G. A. Carey, H. C. Lyman, E. G. Ryan and a number of the company's agents in the New York district.

GOODYEAR BANQUET

S. A. FALOR, of the busy Goodyear staff, came early upon the scene. Accompanying him were his brother C. E. Falor, Chicago branch manager, W. J. Cameron, assistant factory superintendent, William Stephens and Arthur Chapple, of the travelling staff. This quintet and some five score other Goodyear folk enjoyed a banquet at the Astor, Tuesday night. President F. A. Seiberling and Secretary G. L. Stadelman honored the occasion with their presence.

A LIVE ONE

THERE are few men in the trade who have such accurate technical knowledge with clever salesmanship in such happy proportions as does George Squier, of the Consolidated Manufacturing Company. George is too well known in the trade to make this statement really necessary. With the sunny disposition and the optimistic outlook of a boy, there is associated in his compelling personality the valuable knowledge which results only from actual experience and in business, and it is not at all stretching a point to say that Squier has had no experience from which he has not derived some benefit. There are few in the trade who have done more to help dealers by pointing out to them the right and the wrong ways of conducting an agency. Squier's advice is always practical; he knows whereof he speaks, and an increased sale of Yales will always be assured where he does the missionary work.

DINED THE PRESS.

AT the invitation of "Long John" O'Connor, of the publicity department of the Hendee Manufacturing Company, representatives of the three trade papers enjoyed a fine dinner at Shanley's Thursday evening. Kelsey, Sullivan and Sauer were the entertained, their entertainers being the aforesaid "Long John," Vice-President Oscar Hedstrom and Greater New York Distributor F. A. Baker. These six spent happily, and soberly withal, several jolly hours.

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COFFMAN GIVES LUNCHEON

A LUNCHEON was given at the Breslin Friday by A. B. Coffman to those of his trade in attendance at the show. Coffman reported progress with a capital "P," especially in his automobile lines. It seemed strange to have the Toledoan's attention shared by other than strictly motorcycle lines, in view of his previous intimate and active identification with the motorcycle business. But he seemed happy just the same. For the information of those who do not know, A. B. Coffman can always be reached by addressing him at 6 Glenwood Court, Toledo, O.

THE YALESIONS

D. J. WELSH, who was on hand early at the Yale booth, found it necessary to return to Toledo on account of the illness of his wife. Consolidated interests were energetically conserved, however, by Bob Hinds, George H. Squier, Paul J. Bailey, Frank Cornish and a number of Eastern dealers. Goldsmith, who handles the Yale in the Metropolitan district, made the first sale at the Show at 2 o'clock Saturday afternoon.

PAYING THE DINNER BILL

TOM HENDERSON, of the Henderson Motorcycle Company, adopts a rather interesting method of "matching" one for a meal. He pulls from his husky wallet a $10 bill; if you have the equivalent you do likewise. The man holding the best poker hand, according to the serial number of the two bills, eats at the expense of the other fellow. Henderson tried it out on a representative of this publication. He held five 3's, and the MOTORCYCLE ILLUSTRATED man six of them. Henderson paid the bill.

AT THE WIGWAM

AS is usually the case at the shows, demonstrators aplenty were always ready to satisfy inquiring dealers and others regarding the numerous big features of the 1913 Indians, which was the first-installed exhibit. There were Oscar Hedstrom, F. J. Weschler, Edward Buffum, Edward Jackson, John J. O'Connor, Charlie Gustafson, F. L. Hunt, J. H. O'Brien, August Zimmerman, T. K. Hastings, Don McDow and scores of neighborhood Indian agents.

MESINGER'S ENTERPRISE

H. MESINGER, of the H. & F. Mesinger Manufacturing Company, was the recipient of hearty congratulations upon his enterprise as shown in his handsome eight-color lithographic advertisement in the New York Show Forecast Number of MOTORCYCLE ILLUSTRATED. Mr. Mesinger reported his new factory was being operated to capacity, and that his output of 1913 saddles would easily reach double the total attained by Mesinger saddles in 1912.

WESTERN SALES MANAGER

IT was announced at the Show that W. J. Zucker, formerly factory representative for the Stewart & Clark Mfg. Company, will hereafter manage the company's western sales, with office at the company's branch on Diversey Boulevard, Chicago.

SALT LAKE PROGRESS.

AT a recent meeting of the City Commissioners of Salt Lake City, Utah, an appropriation was made for the purchase of two motorcycles for official service.

BOSCH BOOKLET

A HANDY little booklet, explaining the Bosch ignition system, is issued by the Bosch Magneto Company, for distribution by manufacturers who equip their machines with the Bosch. Makers of Bosch-fitted motorcycles will do the users of their machines a distinct service by sending out to each of them, with their other tool-box literature, one of these pamphlets, which can be had from the Bosch Company in quantities to meet requirements.

FOR UNITED STATES TIRES.

WELCH, Webb, Alexander and others were constantly on the job in both places of exhibition in behalf of United States tires. These tire folk are a jolly lot, measured by any standard, and one might have fine-tooth-combed both Garden and Palace in vain to find a happier bunch than the United States tire representatives.

TWENTIETH CENTURY BOOSTERS

ALTHOUGH its line of lamps was not exhibited at the Show, the Twentieth Century Manufacturing Company, of Newark, N. J., was well represented there by Manager C. J. Henderson and Charles B. Brooks, and orders are reported to have been plentiful. The long-range, direct-ray feature of the Twentieth Century lamps has made a strong appeal to motorcyclists.

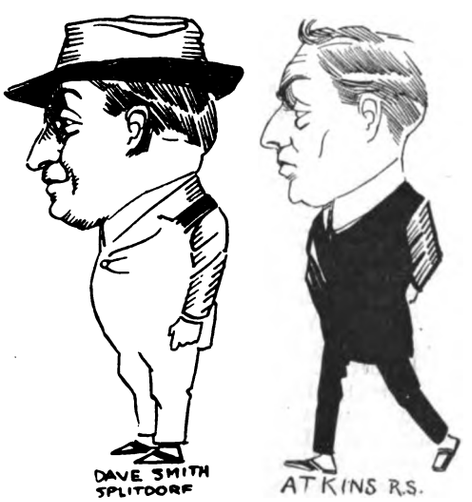
FOR THE MILWAUKEE PRODUCT.

SHOWING the "Sturdy Grey Fellows," of Harley-Davidson manufacture, there were, first and foremost, Sales Manager Arthur Davidson, also T. A. Miller, W. J. Rule, W. T. Walker, Joseph Buckingham, Bob Brozenor, C. B. Vaughan, and numerous other enthusiastic Harley-Davidson tradesmen.

BUFFUM SATISFIED.

EDWARD BUFFUM, of the Hendee staff, took the Show and its trappings, as is his wont, quite as a matter of course. It takes plenty to arouse enthusiasm in Buffum, but it was plain that the 1913 Indian had produced that effect upon him.

F. W. SPACKE, Edward Spacke and F. S. Lawrie, of the F. W. Spacke Machine Company, fondly showed a brand new twin motor, which is described in detail on another page of this issue of MOTORCYCLE ILLUSTRATED.



MORE FIGURES

ADVERTISING Manager Al Bartsch, of the Bosch Magneto Co., always statistical and keen for figures, reports that his survey of the Show disclosed 77 per cent. of the exhibited motorcycles fitted with Bosch ignition. This is an increase of eight per cent. over the showing of last year, in spite of greatly increased competition. The 77 per cent. figure applies to 63 machines that were on show. Mr. Bartsch also calls attention to the fact that all the Show machines were magneto-equipped; three or four years ago batteries were found on nearly 50 per cent. of the motorcycles displayed.

HERZ AND EXCELSIOR.

REPRESENTING the Herz Magneto Company were E. J. Shirley and L. Kimsteer. Across the hall, at the booth of the Excelsior Motor & Manufacturing Company, there held forth H. N. Kirk, Frank Schwinn, Max Sladkin, J. W. Grady, John Henry, Stanley T. Kellogg, W. F. Carroll, and, in quick succession, a score or more of Eastern dealers who, it should be added, make the most of their opportunities.

CONTINENTAL ERIE.

PRESIDENT T. R. PALMER, "Bill" Surre, Walter Tullis, E. H. Strickland, W. M. Johnston and Miss M. A. Casey, enthusiastically represented the Continental Rubber Works, of Erie, Pa. Nor must Mrs. Strickland be overlooked, as she added materially to the gayety of divers happy after-the-show supper parties.

ALWAYS HAPPY.

HARRY HOWE, J. W. Grady's rotund salesman, was much in evidence with the stout man's proverbially genial smile and hearty handshake.

"OLD SOL."

THOMAS N. DUNHAM showed a line of Old Sol lamps the completeness of which is nothing less than remarkable. E. A. Hawthorne, president of the Hawthorne Manufacturing Company, makers of the Old Sol, also attended the Show and the trade luncheon at the Astor Thursday.

FROM OWEGO, N. Y.

FOR the Ives Motorcycle Corporation, showing both single and twin models, there were on hand W. H. Ives, L. Howland, Jr., G. W. Sayer and Frank D. Carroll.

STANDARD WELDING COMPANY was particularly well represented. In the vicinity of its handsome booth in the Palace could be found at intervals J. C. Manternach, T. W. Guthrie, Fred Wilhelmy, B. G. L. Dodge, S. W. Hartley and the irrepressible Bert Quayle.

JACK FULTON represented the Fulton-McCutchan Company, of Chicago, manufacturers of the "Speedo" economizer and carbonizer.

MESSRS. DOWSE, Githens and Hamilton were on hand most of the week, representing the Federal Rubber Manufacturing Company, makers of Federal "Extra Service" tires.

W. D. ANDREWS, of Buffalo, N. Y., corralled a number of sales for his new tank-cap, gas and oil gun and the Andrews' auxiliary air valve.

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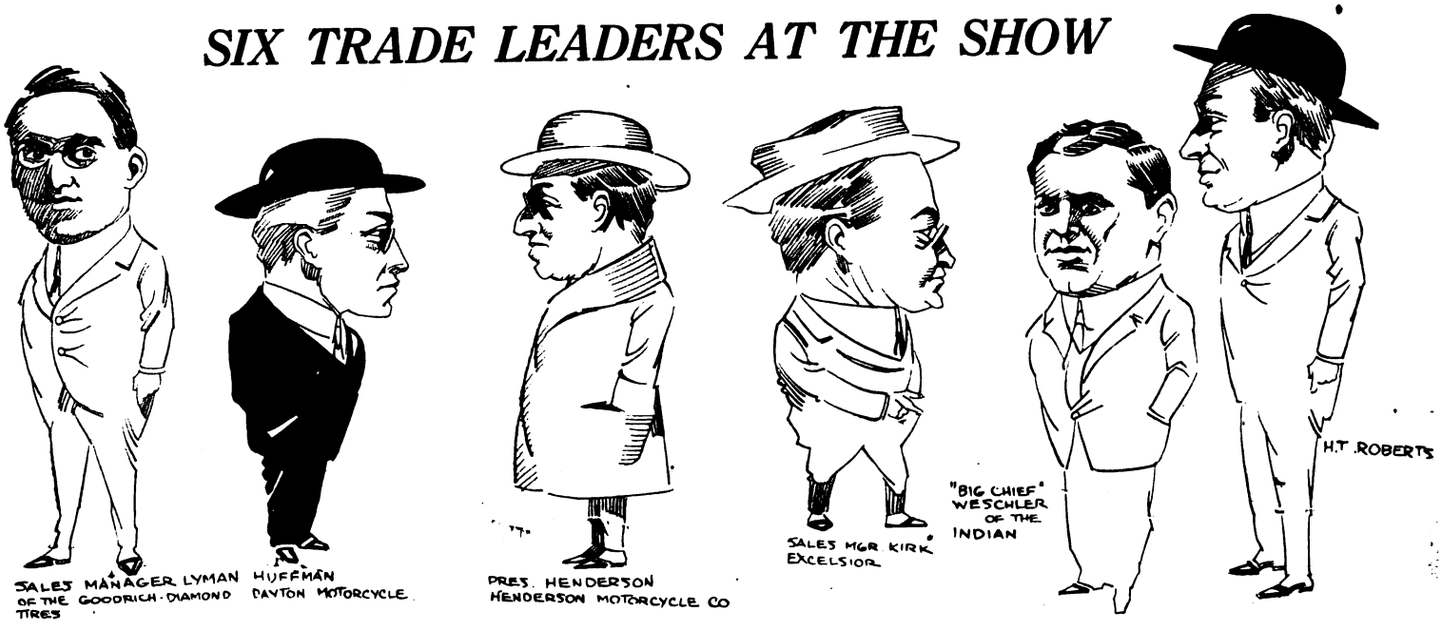
SIX TRADE LEADERS AT THE SHOW



LONG POPE LIST.

THE latest additions to the list of Pope dealers are announced as follows: Rhode Island Motor Car Co., Providence, R. I.; H. C. Hansen & Co., Ogden, Utah; Western Arms & Sporting Goods Co., Salt Lake City, Utah; T. A. Quisenberry, Richmond, Va.; Jesse Smith, Clarion, Ia.; W. M. Chelf, Leoti, Kan.; Fort Wayne Hardware & Sporting Goods Co., Fort Wayne, Ind.; E. A. Coburn & Son, Waterloo, Ia.; A. J. Gladwell, Lima, O.; S. Page, Jr., Waverley, Ia.; H. A. Routson, Piqua, O.; Allentown Razor Co., Allentown, Pa.; W. J. Urich, York, Pa.; Lyons & Company, Grand Forks, N. D.; Jos. Kegal & Co., Freeport, Ill.; Zeaman Cycle Co., Two Rivers, Wis.; W. Bell, Kansas City, Mo.; Koch Outfitting Co., Evansville, Ind.; Van Brunt-Bleeg Co., Sioux Falls, S. D.; J. H. Kuentzli, Milwaukee, Wis.; E. L. & A. M. Burr, Rockford, Ill.; Geo. C. Detch Co., Indianapolis, Ind.; Kellington & Dieckhoff, Decatur, Ill.; Wm. Johnson, St. Paul, Minn.; C. B. Jansky, St. Louis, Mo.; Dallas Rubber & Cycle Co., Dallas, Texas; Walter Box Co., Georgetown, Texas; Alamo Cycle Co., San Antonio, Texas; Amos Shirley, New York City; F. W. Anderson, Albany, N. Y.; Boone Auto Co., Boone, Ia.; C. H. Swab & Co., Cedar Rapids, Ia.; J. H. Peterson, Des Moines, Ia.; Shewmake-Hall Co., Dublin, Ga.; R. R. Oakman, Savannah, Ga.; Thomasville Motor Co., Thomasville, Ga.; E. C. Lord, Belgrade, Me.; Randall Mfg. Co., Baltimore,, Md.; Theo. Behrendt, Billings, Mont.; Missoula Mercantile Co., Missoula, Mont.; Pecos Valley Drug Co., Roswell, N. M.; High Point Motor Co., High Point, N. C.

WILL OPEN GARAGE

ALLAN M. BLAKE, of Charleston, W. Va., announces that he will open a motorcycle garage at 211 Hale street, on February 1. A fully equipped repair shop will be conducted in connection with the garage, and Mr. Blake states that particular attention will be given to F. A. M. tourists.

PATHFINDER TURNS AGENT

FRANK CRAYTON, for some time past employed by the Scarborough Map Company, in the capacity of pathfinder, is now connected with his brother Charles C., of Chilicothe, O. The Crayton Brothers will handle the Harley-Davidson motorcycle.

PLENTY OF ACTIVITY IN WASHINGTON

THERE has been a noticeable tendency of late on the part of the dealers in Washington, D. C., to locate on Ninth street, N. W., between "H" and "L" streets. This has been further emphasized by the recent removal of T. N. Mudd, Jr., Reading-Standard agent, and one of Washington's pioneer dealers, from his old location to Ninth street, between "H" and "I" streets. P. M. Corr, agent for the Flanders, was the first to locate on this block. About three years ago the Harley-Davidson agent, John H. Berryman, located in this section and shortly after, George W. Beall, representing the Thor, followed suit. Last year the store adjoining the Thor shop was secured by the local Schickel agent and at about the same time Messrs. Osborne & Leishear, agents for the Excelsior, made their new quarters on the same block as the R-S store. Frank Hazelton, Yale agent, and the Haverford Cycle Company, are located on Tenth street, N. W., and it is reported that the latter firm intends building an up-to-date motorcycle garage on Ninth street, which will help to complete the motorcycle center. Harry Seamark, distributor for Flying Merkel and Emblem machines, has added a three-story building to his establishment at the corner of Sixth and "G" streets, N. W.

Despite the fact that local legislation had, if anything, a domineering effect upon the sport, the dealers report a fairly good 1912 season. This is shown by the fact that 350 permits were issued to new riders by the local license board. Sales by some of the individual dealers for the past season are here given: J. S. Berryman disposed of about 100 new and second-hand Harley-Davidsons; P. M. Corr reports the sale of about 50 Flanders and Yale machines; about 100 Flying Merkels were distributed by Harry F. Seamark; T. N. Mudd, Jr., sold about 25 Reading-Standards; Osborne & Leishear, about 75 Excelsiors; George W. Beall, 25 Thors; Howard A. French & Co., 50 Indians; Haverford Cycle Company, 50 Haverfords, and Harry W. Higham sold about 50 Pope models. Several sales were made by the newly-established firms of Miller Brothers, and L. W. Sakers; the former handles the Minneapolis, Henderson and Pierce lines, while Sakers represents the P. E. M. and the Schickel.

DAYTON AGENCIES.

THE Western branch of the Davis Sewing Machine Co., located in San Francisco, Cal., announces that agencies for the Dayton motorcycle have been closed with the Ashley Motor Co., Olympia, Wash.; James F. Stack, 23 Riverside avenue, Spokane, Wash.; A. L. Hall, 1021 First avenue, Seattle, Wash.; R. H. Brown, 947 Commerce street, Tacoma, Wash.; Richardson's Cyclery, Riverside, Cal., and E. A. Meyers & Co., San Diego, Cal.

The Dayton Cycle Co., Portland, Ore., will distribute the Dayton motorcycle throughout the State of Oregon.

W. E. & W. H. Jackson, San Francisco, Cal., will distribute the Dayton motorcycle in Northern California.

Messrs. Jackson reports that they have closed agencies with Wilson & Allen, Los Gatos, Cal.; Louis Krohn, Oakland, Cal.; Schaackey & Viera, San Jose, Cal., and The Stockton Motorcycle & Supply Co., Stockton, Cal.

OMAHA EXHIBITORS.

ANNOUNCEMENT is made by the Omaha (Neb.) Automobile Show Association, Inc., that the motorcycle dealers of Omaha will be represented at the annual automobile show, to be held February 24 to March 1. Considerable interest has been shown in the two-wheeler in this section of late, and many automobile dealers in near-by towns are contemplating handling motorcycles in addition to cars. The motorcycle dealers who will exhibit at the show are reported as follows: V. H. Roos, Harley-Davidson and Yale; Omaha Bicycle Company, Indian; Reading-Standard Motorcycle Company, Reading-Standard; Nebraska Cycle Company, Excelsior, Thor and Henderson, and the Powell Supply Company will show the Pierce line.

FIGURES FROM LOS ANGELES

IT is estimated that there are 8,000 riders of motorcycles in Los Angeles, thus making it the leading motorcycle city in the United States.

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AT THE GARDEN

MESSRS. Rolin, Abell, Atwood and Howlett were in attendance at the booth of the Standard Thermometer Co., of Boston, Mass., demonstrating the well known Standard Speedometer.

Souvenirs in the form of a package of cigarettes were given out at the booth of the Texas Co., of New York City, manufacturers of "Texaco" oil. This booth was in charge of H. Tipper, L. A. Jacobs and Ben Hart.

Electric horns were shown by the Dean Electric Co., of Elyria, O., its booth being presided over by W. H. Scott, R. W. Davis, R. H. Manson and C. B. Harlow.

G. H. Piel, Arthur Piel, H. W. Fanning and J. B. McCaw demonstrated to many interested motorcycle dealers and riders the new Long Horn, electrically operated, and manufactured by the G. H. Piel Co., of Long Island City, N. Y.

Hess-Bright Ball Bearings were demonstrated by A. K. Nairn, R. E. Clingan, Wm. V. Lowe.

Wolfshead Oil, manufactured by the Wolverine Lubricants Co., of New York City; represented by E. F. Kalklof, H. Plowman and H. Wilkine.

Mossberg Wrenches: Frank Mossberg Company, Attleboro, Mass.; Frank Mossberg, W. I. Tuttle, W. H. Sternberg and W. Chase.

C. O. Tingley & Co., Rahway, N. J.: Tires, cement and patches; C. O. Tingley.

United States Tire Gauge Co., New York City: Tire gauges; Wayne Burns, Otto Herborn, M. M. Lawler.

Nathan Novelty & Mfg. Co., New York City: Auto fabrics, leggings and motorcycle clothing; E. B. Nathan, C. S. Schwarz, Henry Baer.

Stevens & Co., New York City: Accessories manufactures; Louis Schwab.

Riley-Klotz Mfg. Co., Newark, N. J.; Horns; A. B. Underwood.

Nonpareil Horn Co., New York City: Horns; J. J. Cohn.

Standard Woven Fabric Co., Worcester, Mass: "Multibestos" brake lining; A. H. Burdick, T. J. Daly, R. D. Northrop.

New Departure Mfg. Co., Bristol, Conn.: Ball-bearings, brakes, etc.; DeWitt Page, M. J. Horton, A. E. Griffith, L. W. Sigourney, E. W. Mink.

J. H. Sager, Rochester, N. Y.: Springs and spring-frames; J. H. Sager, C. J. Iven, C. M. Sager.

N. Y. Lubricants Co., New York City: Monogram oil; C. G. Stowe.

Benford Mfg. Co., Mt. Vernon, N. Y.: Spark plugs; E. N. Benford.

Royal Equipment Co., Bridgeport, Conn.: "Raybestos" brake-lining; S. Simpson, R. Everett.

A. Schrader's Son, Inc., New York City: Tire gauges and tire valves; M. C. Schweinert, M. H. Tiene, K. S. Van Seiver, B. W. Yockers.

Indian Refining Co., New York City: "Havoline" oil; F. L. Sample.

American Ever Ready Co., New York City: Batteries, speedometers, etc.; H. W. Scholl.

Improved Gauge Mfg. Co., Syracuse, N. Y.: Tire gauges; W. F. Albrecht.

Edelmann & Co., Chicago, Ill.: Tire gauges; B. M. Asch.

White & Bagley, Worcester, Mass.: "Oilzum"; Robt. L. Sim.

Voorhees Rubber Co., Jersey City, N. J.: Puncture-proof tires; John Caldwell.

Hartford Machine Screw Co., Hartford, Conn.; "Bulldog" spark-plugs; W. J. Millard, H. E. Penfield.

Corbin Screw Corporation, New Britain, Conn.: Corbin-Brown speedometers, brakes, etc.; Col. W. C. Brown, J. J. Bonney. At the Palace.—H. A. Harrop, Otis M. Scripture, R. O. Renknagel and E. C. Bowman.

Geo. A. Haws, New York City: Panhard oil; J. W. Braid.

Rose Mfg. Co., Philadelphia, Pa.: Neverout lamps; H. C. Rosenbluth, G. W. K. Voight, H. R. Koslowsky, W. R. Hicks.

Ajax Tire Co., New York City: Tires; E. D. Winans, R. Clunan, H. S. Pettingill, Edgar Storms.

A. W. Harris Oil Co., Providence, R. I.: Oils; E. J. Waters, H. A. Gaunt.

Standard Roller Bearing Co., Philadelphia, Pa.: Roller bearings; Mr. Watkins.

Whitney Mfg. Co., Hartford, Conn.: Chains; Clarence Whitney, H. L. Sevin.

U. S. Tire Co., New York City: Tires; H. E. Sheldon, W. C. Tolliver.

Best Ignition Co., New York City: Spark-plugs; Mr. Specht.

Pennsylvania Rubber Co., Jeannette, Pa.: Vacuum Cup tires; D. Dudley Yard, G. C. McCullough, F. R. Hanse, Chas. Vincent.

Manufacturer's Foundry Co., Waterbury, Conn.: Castings; F. C. Fromme, E. W. Beach, H. F. Rogers.

The Weed Chain Tire Grip Co., New York City: Weed anti-skid chains; Wm. Morris, F. E. Sparks, W. B. Lasher, W. F. Walker and A. D. Williams.

Coes Wrench Co., Worcester, Mass.: Wrenches; Chas E. Braman, Walter Robbins.

A. R. Mosler & Co., Mt. Vernon, N. Y.: Spark-plugs; A. R. Mosler, C. B. Boynton, H. A. Watty, Miss A. L. Lummis.

Fisk Rubber Co., Chicopee Falls, Mass.; Tires; Chas. Gage, M. R. Brown, Jas. Fitzgibbons, W. J. Heathcock, W. W. Adams, Geo. Adams, J. Klingler, J. Quinn.

Rhineland Machine Works Co., New York City: Ball-bearings; Stewart R. Shepard.

The Emil Grossman Co., New York City: Spark-plugs; Emil Grossman, Louis Schwarz, J. J. Briefer.

R. I. V. Co., New York City: Ball-bearings; H. Neata, E. L. Smith, E. E. Brennan, C. R. Mabley.

Sarco Engineering Co., New York City: Coventry chains and Acme sirens; H. L. Funke.

Barthel, Daly & Miller, New York City: Schaefer ball-bearings; E. F. Daly, Fred Seuffert.

Vacuum Oil Co., New York City; Mobiloil; S. G. Robinson, Frank Killian, H. G. Caldwell and Messrs. Hayes, Callahan, Eames, Larke, Welch, Spencer, Bowman and Cohen.

Splitdorf Electrical Co., Newark, N. J.: Magnetos and spark-plugs; C. W. Curtis, W. J. Murray, H. Hinley and Mr. Girdlestone. The Splitdorf Company also had an exhibit at the Palace, in charge of Dave Smith and Michael Toepel.

BROOKLYN SHOW

FROM February 22 to March 1, the retail dealers of Brooklyn, N. Y., will hold forth at their annual automobile and motorcycle show in the Twenty-third Regiment Armory, on Bedford avenue, between Atlantic avenue and Pacific street, and an attractive folder is now being distributed to call attention to plans for the display. One of the features is to be an especially interesting program, for which advertising space is now being set aside.

LOCKPORT OFFICERS

EXECUTIVE leaders of the Lockport (N. Y.) M. C. were chosen at the January business meeting. William F. Smith is president; E. Roth, vice-president; H. Blackley, secretary; M. Cleverly, treasurer, and F. Neis, captain. R. Skellan and L. Flecker were named lieutenants and H. Finch and R. Rignal directors at large.

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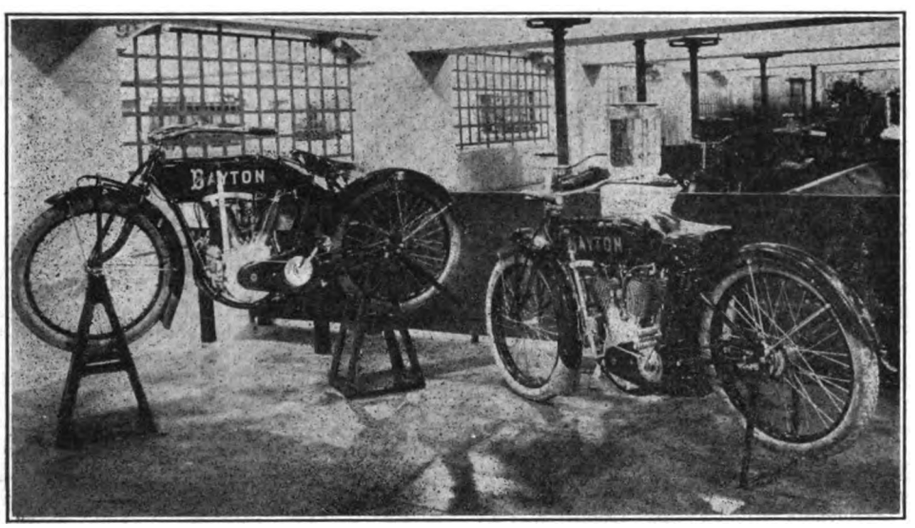
SALIENT POINTS at THE STANDS

DAYTON

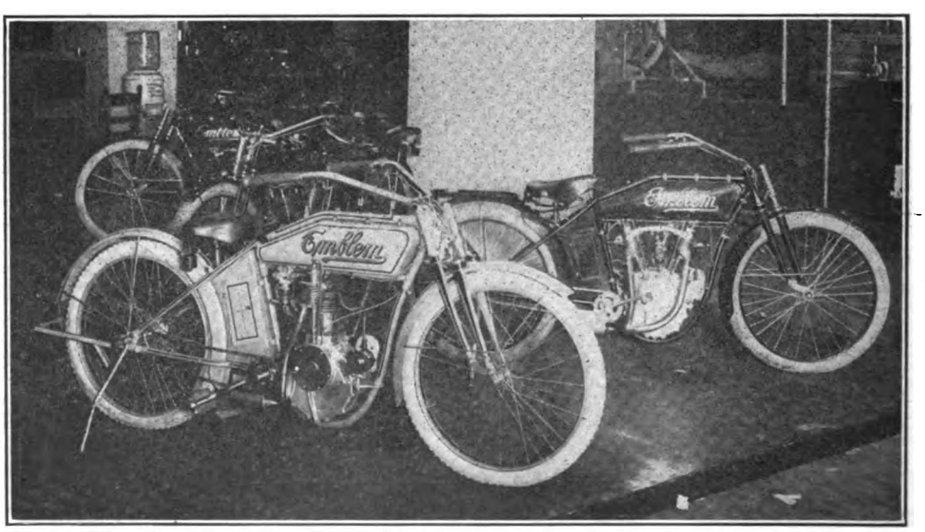
FOUR twin machines characterized the exhibit of the Dayton motorcycle, the product of the Davis Sewing Machine Company, Dayton, Ohio. Finished in the firm's red tone and with De Luxe motors, they looked as powerful as their 7 and 9 h. engines gave evidence of. A coach-spring type of front fork with scroll end was fitted on all models, as was also a spring seat post; the Eclipse countershaft clutch was operated by a side lever with wood ball grip. Three inch tires as stock equipment were fitted, and a wrinkle that should be on every motorcycle was the magneto cut-out on the right handlebar. The bore of the 7 h. twin is 3.25 inches and the stroke 3.67 inches, giving a capacity of 60.92 cubic inches. For the 9 h. machines, the bore and stroke, respectively, are 3.50 and 3.67, giving a piston displacement of 70.62 cubic inches. The oiling system is double, consisting of a drip-feed with sight glass as the regular system, and a hand pump buried in the oil compartment of the tank and readily accessible to the hand of the rider, as an emergency fitting. The brake is new, being of the center-braking type and of Lester make. The gear ratio is 3¼ to 1, representing a speed of 56 miles per hour at 2,500 r. p. m.



Dayton Twins for 1913, rated at 7 and 9 h.

EMBLEM

FOUR machines, embracing single and twin models were to be seen at the stand of the Emblem Mfg. Co., Angola, N. Y. The single models were of 5 horsepower and were fitted with chain and V-belt transmission. The twins were of 8 and 10 horsepower and both were shown fitted with the firm's tandem attachment. Mechanical inlet valves are fitted to all models, and the cams are machined integral with the half-time gear, there being four on the one shaft in the twins and two in the singles. Graduated cooling flanges are fitted, and the frame is given a greater drop, located further forward, than in previous models. The forks will be seen to be wider and the silencer shown was of aluminum sheet instead of iron. The Eclipse clutch is handlebar controlled, the lifter lever being on the right bar, while that for operating the exhaust valve lift is under the left grip. Oiling is by sight-feed with auxiliary hand-pump buried in the oil compartment of the tank. The transcontinental 10 horse automatic inlet twin ridden by M. E. Gale was staged in the exhibit during the latter part of the Show, just as it came off the road, and attracted great attention.



Four Models Made up the Emblem Exhibit.

A SAVANNAH OUTING.

SAVANNAH, Ga., January 11.—About 75 members of the Savannah M. C., participated in an informal jaunt arranged by O. A. Meyer, sporting editor of the *Press*, today. Although the event was called a mid-winter run, the temperature reached the 80 mark during the afternoon, and those of the boys who wore winter clothing were far from comfortable. Chief of Police Austin started the boys off at 9.30 a. m. Chief Austin is a booster of the motorcycle and now has four machines in his department.

The run was first directed to the county farm where the convicts are confined. Part of the going was over the Grand Prize course, but the roads near the farm were very rough. The boys returned to Savannah for dinner and by 2.30 p. m. were again on the road. They covered about 150 miles during the day.

REGISTERED REPAIR SHOPS.

SECRETARY GIBSON announces the registration of the following repair shops during the week ending January 11: Amos S. Meginness, San Juan Baitista, Cal.; Woolley & Henderson, 118 North Main street, Lead, S. D.; F. A. Shottenheimer, Barr street, McDonald, Pa.; Dolezal Brothers, 1845 South Wood street, Chicago, Ill., and Fred B. Jones, 407 Rantoul street, Beverly, Mass.

A recent F. A. M. affiliation is that of the Lindsay M. C., of Lindsay, Cal.

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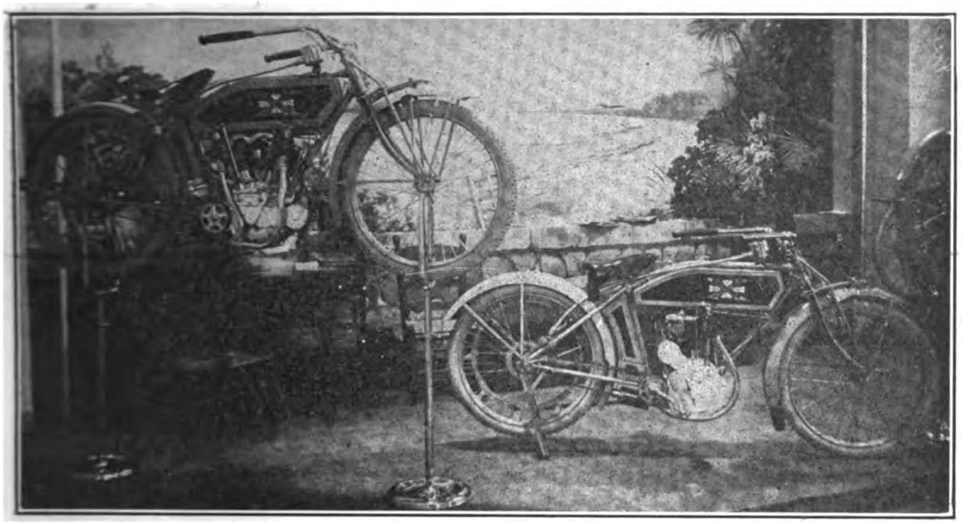


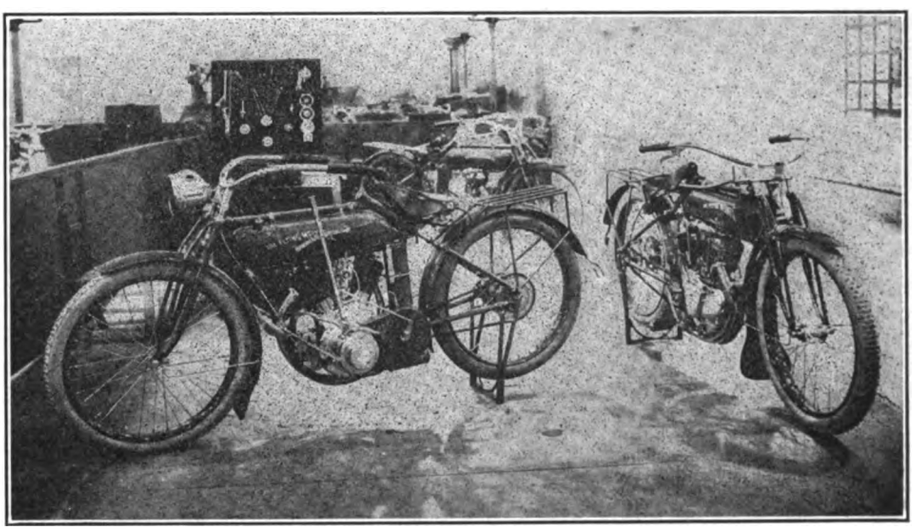
Six Excelsior Touring Models and one Racer were Shown.

EXCELSIOR

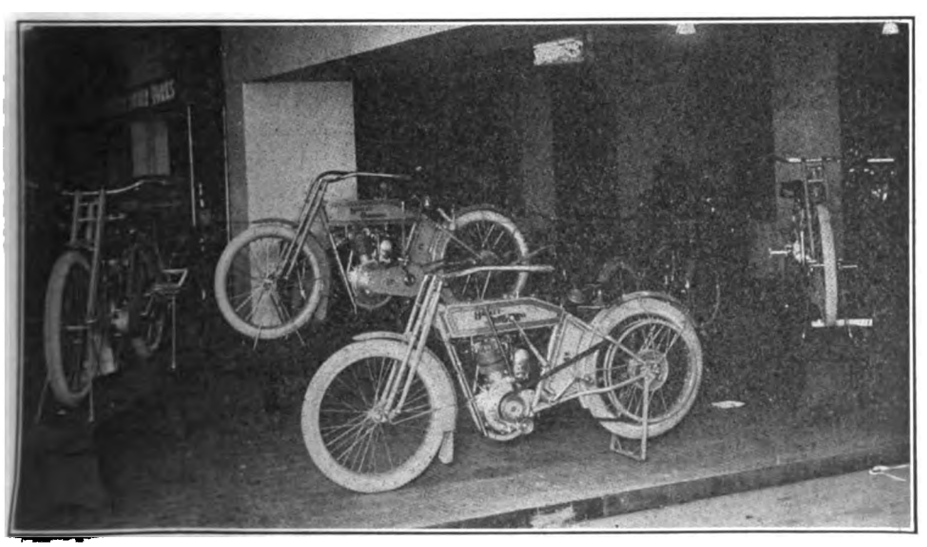
AT the exhibit of the Excelsior Motor Mfg. & Supply Co., Chicago, Ill., were displayed six touring models, and one rigid frame racing type with coaster brake, it being claimed for the latter that it was the machine on which Humiston made the records of 36 seconds to the mile. The left grip on this mount operated the oil pump mounted at the left side of the tank. Four machines shown were twins and the remainder singles. The twins were fitted, two with flat belt and two with chain transmission and the characteristic features of clutch control by twisting the left grip were found on all models, the Eclipse clutch being fitted. The individual spark lever on the tank was another feature of the 1913 models of this product. Pistons have been lightened, and the front fork spring has been made slightly heavier, while on the belt models, the width was 2¼ inches. The singles, of 4 horsepower, were respectively belt and chain drive and the changes were in the same lines as that on the twins.

FLYING MERKEL

MERKELS in four models were exhibited at the space given over to the Miami Cycle & Mfg. Co., 300 Hanover street, Middletown, Ohio. The chief model which attracted attention was the "7-75" or two-speed self-starting model. This is fitted with the new long-stroke motor, and "Ever Ready" self-starter and a planetary two-speed gear in the rear hub. The starter incorporates a coil spring which, when released by pressing a pedal, turns the motor over about eight times before being unwound. When the motor runs under its own power it rewinds the spring to the proper tension and then acts no further upon it. The two-speed gear is operated by a side lever near the rider's hand, and foot boards are fitted well forward. The brake on this model is a large band, operated by the right heel. A compensating sprocket is also fitted to the rear hub to relieve the shocks of the chain drive. The other models were a clutch twin of 7 horsepower, a 4 horsepower single with chain and another twin with V-belt drive. The control of the clutch on these models is by side lever in a similar position to that of the gear lever on the first mentioned model. All have the new spring frame with lower saddle position and seat post tube forming the oil tank. The motors, single or twin, were of 3¼ by 3 43/64 inches, in place of being "square" as in previous seasons. The shape of the tank was seen to be altered and the pistons are hour-glass form and the gears have the cams machined integral. The valves have been changed also.



Merkel Stand; Note Self-Starter on Model in Foreground.



Two 8's and Two 5's were the Harley-Davidson Drawing Cards.

HARLEY-DAVIDSON

TWO 8 horsepower chain driven twins and two 5 horsepower singles made up the total of machines shown on the stand of the Harley-Davidson Motor Co., 341 C street, Milwaukee, Wis. One of the twin motors was sectioned to show the construction, while the frame and motor parts were also exhibited for inspection. The new frame showed longer reinforcing members in the front fork tubes, bushed fork rockers, and wider spread to take three inch tires on the twins. The single motors have mechanical inlet valves and a stroke of 4 inches as compared with the 3½ of former models. The wheelbase of these models is one inch shorter than on the twin, and there has been made a slight change in the form of the clutch lever operating the "free wheel." On the flat belt models a belt guard is fitted.

DENVER BOOSTERS ACTIVE

PRESIDENT PATTERSON and the directors of the F. A. M. have been bombarded of late with communications from officials in Denver, Col., who desire to see the 1913 convention of the Federation brought to the "Mile High City." Letters have been received from Governor John F. Shafroth, the Greater Colorado Highways Association, Mayor Henry J. Arnold, of Denver, the Denver Hotel and Restaurant Keepers' Association, the Denver Chamber of Commerce and other officials and organizations.

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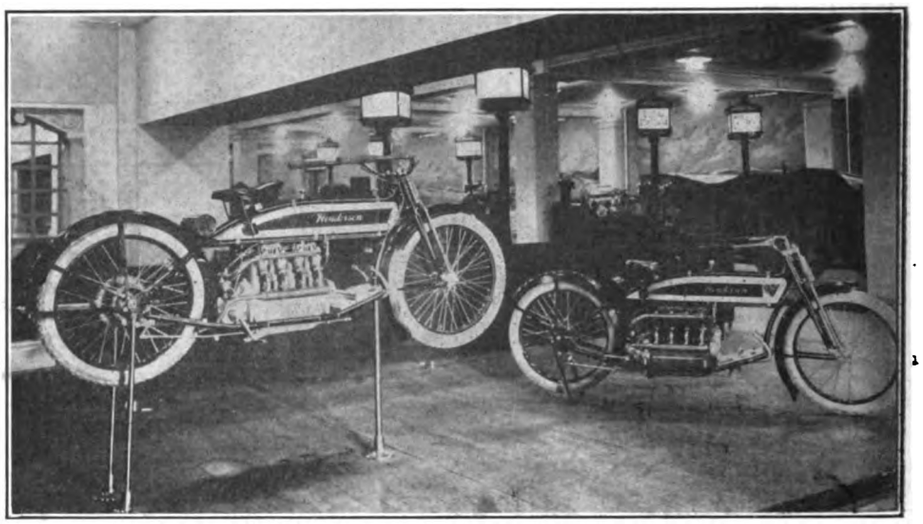
HENDERSON

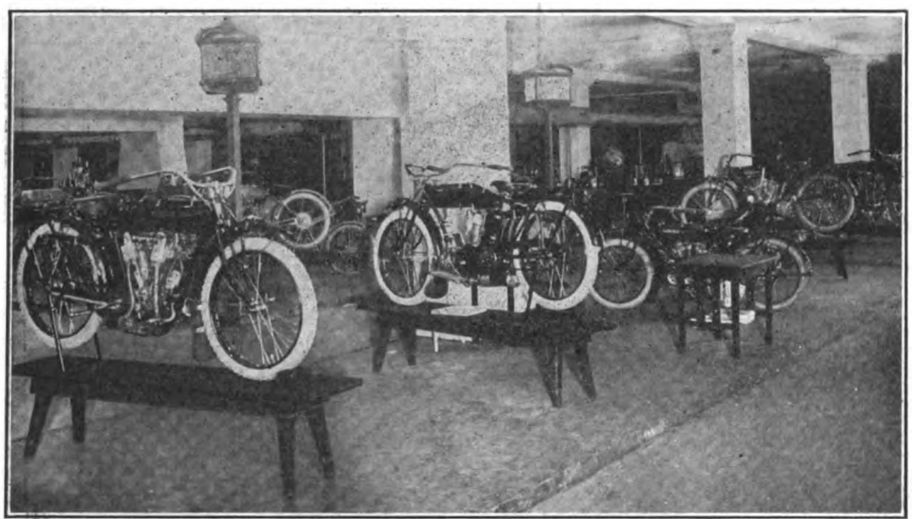
THE Henderson Motorcycle Company, 1158 Cass avenue, Detroit, Mich., exhibited three models of their four-cylinder machine, one of which was fitted with a tandem attachment and fabric splash guard over the rear wheel. The exclusive features of this make are the trapezoidal cradle frame of 13-gauge wall tubing with aluminum footboards, dual brake control and band brake on the right hand side of the rear axle. The spark control is fitted to operate by the left grip in place of the short lever at the side on the previous models, and the fuel tank is square in section instead of cylindrical. Other features are the folding hand starting crank, four-cylinder distributor type Bosch magneto and ball grip side lever clutch control. The tool bag is of metal and circular in form, fitted back of the saddle ahead of the fork junction. Finish was in royal blue with aluminum banding and light striping.



The Henderson Four, Viewed from Two Angles at the Show.

INDIAN

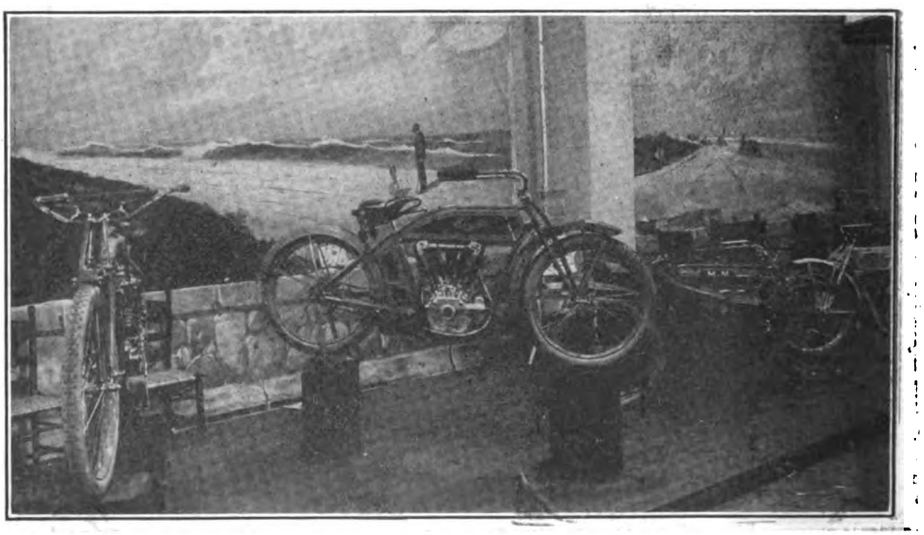
SIX red Indians were shown at the space occupied by the Hendee Mfg. Co., Springfield, Mass. Four of these were twins, and the remainder singles, and one of the twins was shown with a sidecar. Of the twins, two were fitted with the bottom-bracket two-speed gear suspended below the bracket, and the others were clutch models. The two-speed models were fitted with heel-and-toe clutch pedals alongside the left footboards, while the clutch models of all powers had the side lever control. Footboards were fitted to all mounts shown in this exhibit, as was the new coach-spring frame having one spring of this type fitted at each side of the rear wheel and acted at its scroll end by a connecting yoke attached to the rear stays. The latter were pivoted at a bearing just behind the bottom bracket and the springs have their butts supported by pads forming the arms of a U-piece behind the saddle and part of the frame. On the two-speed models, there is an additional brace bar extending to the rear of the bottom bracket from this piece. The chain drives are both guarded and the starter on the two-speed models is slightly improved, the tread being arranged to swing to one side when not in use. An auxiliary brake pedal was shown fitted to the clutch models in both single and twin types. One of the singles shown was a two-speed model also. The sidecar was on the coach-built type with rigid frame and wheel and had a side-entrance door and black upholstering. The frame is underslung and the connection is three point. A tool box is fitted as regular equipment to this car. The saddle on all models is of the Superba type and a substantial luggage carrier is fitted to all machines of this make.



The Indian Display was a Comprehensive One as Usual.

M. M.—EAGLE

AT the stand of the American Motor Co., Brockton, Mass., were shown one M. M. 90 degree twin of 8 horsepower, one 4½ horse single, and two Eagle 9 horsepower twins with flat belt and chain transmission respectively. The M. M. twin is fitted with the Eclipse clutch, operated either by hand lever or finger lever on the left grip, and was seen in the new gray finish with black panelling and spring snap-up stand. The dome for the inlet valve is slightly changed, and the pistons of new type are shown separately as are also the roller bearings in the connecting rod big ends. The Eagle machines have a distinctive control, all but the brake being operated by the grips. The left grip operates the spark and clutch and the right grip the valve lifter and throttle. The handlebar anchorage is new, the clamp being a forging bridging the fork stem and acting as a lock-nut for the latter. The color scheme is gray with black lettering, and the motors used are the de Luxe. At this stand was shown the Simplex sidecar, made by the Simplex Machine Works, 45th street and 5th avenue, Brooklyn, N. Y. The body was of the canoe type, with side door and metal panelling. It was finished in red upholstering and the chassis was fitted with a removable hub and the Simplex quick detachable fittings.



M. M. and Eagle Combination Display; M. M. with Sidecar.

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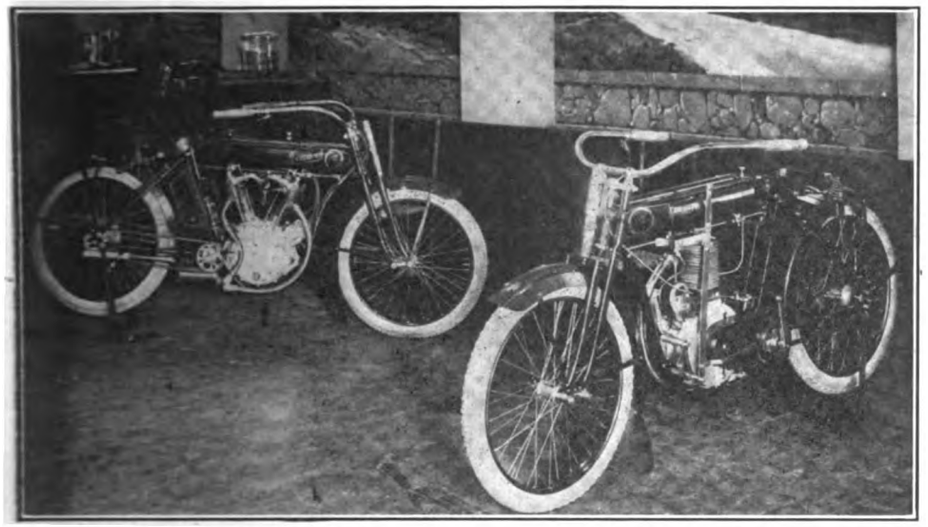


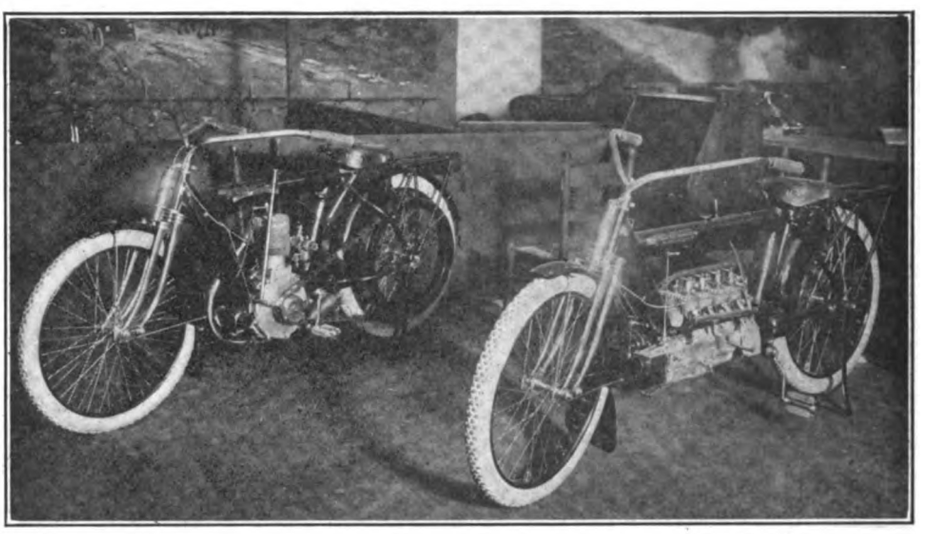
Two 1913 Models at the Monarch Stand.

MONARCH

TWO models, a single and a twin, represented the Monarch product, made by the Ives Motorcycle Corporation, 200 John St., Owego, N. Y. Finished in the distinctive brown with gilt lettering, the machines were shown with inlet valve fitted over exhaust and with the loop spring saddle suspension which distinguishes this make. The single was shown in chain drive, but is offered also in V-belt, while the twin, of 10 horsepower, is in chain drive only. The latter machine is a duplicate of the single in general lines, and both are fitted with separate exhaust valve lifter on the right handlebar. The front fork is of the spiral spring type and the main fork behind the rocker portion.

PIERCE

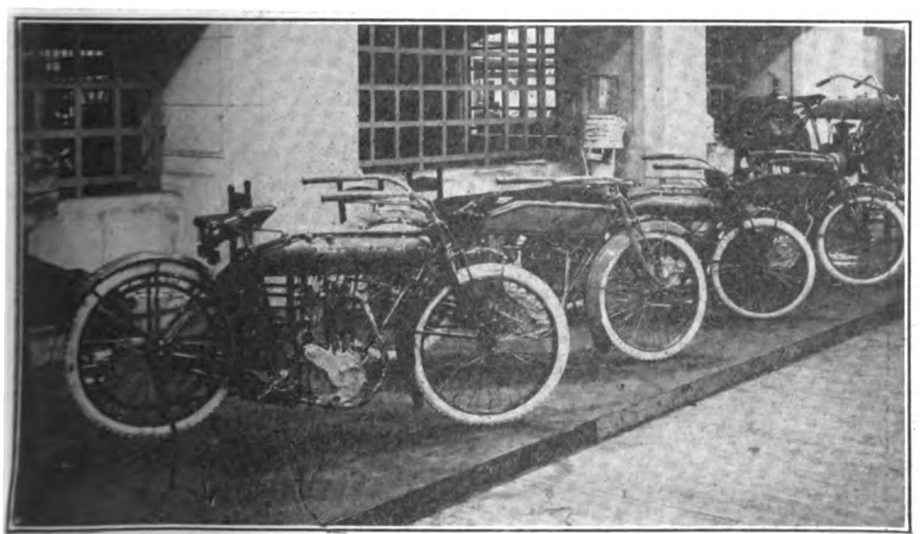
ONLY two models of the Pierce motorcycle were shown at the space of the Pierce Cycle Company, 12 Hanover street, Buffalo, N. Y., these being the 4-cylinder, 7 h. model and the 5 h., single cylinder model with belt drive. The tank-frame construction in which are incorporated the gasoline and oil tanks is characteristic of this make and appear on both machines, as in previous seasons, but the four-cylinder mount is fitted with foot rests for 1913. The single model was shown with Eclipse clutch operated by hand lever and V-belt transmission, while the combined change-gear and clutch control lever on the 7 h. model is located at the right side of the frame. Parts in the rough and finished states were an interesting feature of the exhibit.



The Pierce was Shown in Both Its Single and Four-Cylinder Types.

POPE

FOUR models of the Pope Manufacturing Company's product, from Hartford, Conn., were shown, these consisting of the 3½ single V-belt model, the 4 h. single flat belt model, the 5 h. chain model and the 7 h. twin, with chain transmission. The first of these was for some seasons the only lightweight machine built in this country, while the others with the exception of the "Big Four" are new. Overhead valves are fitted on the three larger motors and the five and twin are fitted with a novel rear wheel springing, consisting of rods attached to the ends of the axle playing in bearings in half-pedestals under command of spiral springs fitted above the latter. The parts carrying the axle ends and corresponding to the slider forks are provided with rollers which bear against the forward faces of the pedestals and thus reduce friction. The wheel thus moves up and down while the frame remains stationary, except as to the front cradle spring fork. On the twin, the magneto, located behind the cylinders, is worm driven, and adjustments are readily made in timing by removing the cap of the upper worm housing and changing the position of the armature with relation to the gearing. The Eclipse disc clutch is controlled by a wood grip hand lever at the left side of the frame, and lubrication is by mechanical pump with hand auxiliary.



The Quartet of Pope Machines for the Coming Season.

SAUCER FOR WASHINGTON.

WASHINGTON, D. C.—Motorcycle owners and dealers of Washington are looking forward with enthusiasm to the completion of a motordrome within the next three months which will compare favorably with anything of the kind in the country. Thomas R. Dedge, a member of the National Capital Motorcycle Club, and a well-known racer, is at the head of the project. The plans provide for the building of the track at Glen Echo, an amusement resort owned by the Washington Railway & Electric Co., just over the District of Columbia line, in Maryland. Dedge plans a third of a mile board track, banked at an angle of 60 degrees.

BANQUET AND ELECTION.

A WELL-ATTENDED and enthusiastic meeting preceded the first annual banquet of the West Philadelphia M. C., of Philadelphia, Pa. After the feast the boys proceeded to the election of officers. William H. Lokes was elected president; Walter Moon, vice-president; Roland Cummines, secretary; Donald F. Hopkins, treasurer; Fred Lavengood, captain, and Roland Cummines and Walter Moon, lieutenants.

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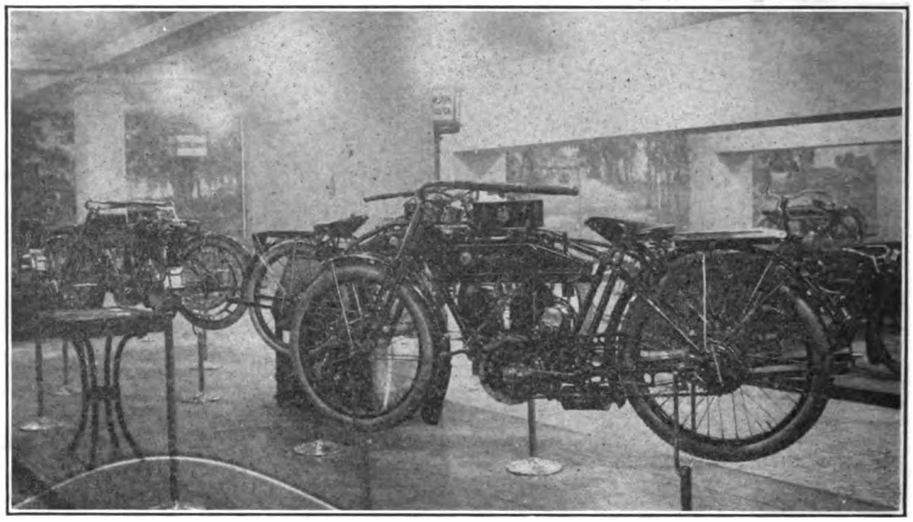
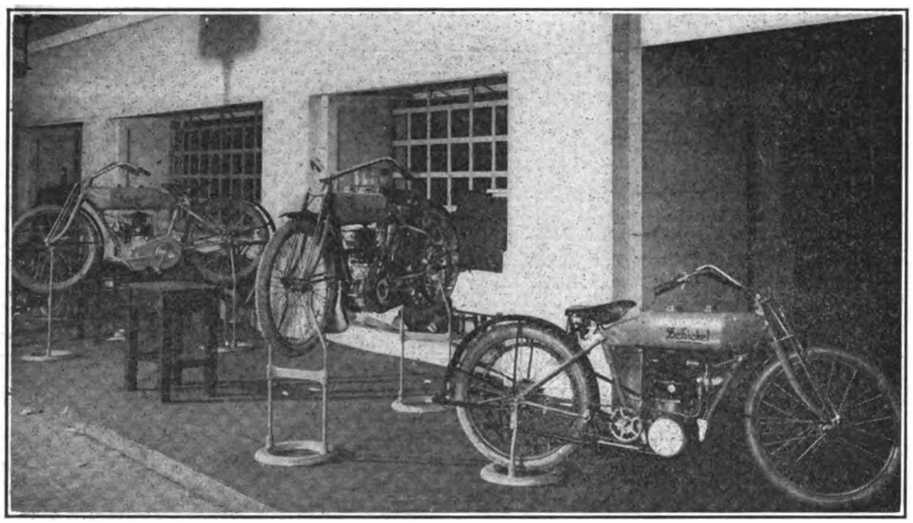
READING-STANDARD

THE Reading-Standard Company, 306-340 Water street, Reading, Penna, showed five machines, two 8 h. twins, a 5 h. single tourist, with chain drive, another of the same model with flat belt drive, and a 4 h. single with flat belt drive. Sectional models of both the twin and single motors were also exhibited, enabling inspection of the characteristic features of this make; inlet and exhaust cams integral with the half-time gear, side-by-side valves, scientifically-designed inlet manifold giving the proper flow of gas to the cylinders, vanadium-alloy gears and clean cylinder castings. Various parts of the motor were shown separately, as was the leather-faced cone clutch with cork inserts and control lever. The new tool-bag mounted on the top tube and the spring seat post and fork and adjustable footrests, the three latter points having been characteristic of R-S construction for several seasons, attracted considerable attention, as did the double braking and oiling systems. The substantial exhaust valve lifter under the right grip and the undergear drive were to be seen on the chain mounts, while the flat belt Tourist type shows a substantial shoe brake working on the outside of the belt rim. Finish was in the company's brown shades and in Sylvan green. The piston displacement of the 5 single is 33.5 cubic inches, and on the 8 twin, 67 cubic inches.



Complete Line of Reading Standard Models.



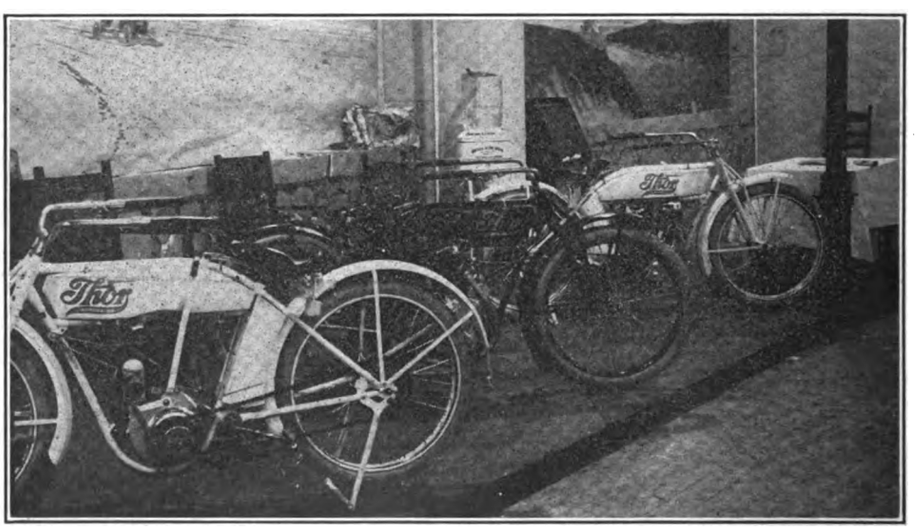
The Two-Stroke Schickel in 5 and 6 h. Types.

SCHICKEL

THE sole representative of the two stroke principle was seen at the booth of the Schickel Motor Company, 59 Garden street, Stamford, Conn., where the 5 and "Big Six" models occupied the space allotted to Schickel mounts. One model of the "Big Six" with chain drive and Eclipse countershaft clutch was shown, the clutch control being by twisting the left grip. The Bowden wire connection was attached to the end of a long lever which actuated the clutch operating lever, so that a slow and gentle engagement was rendered possible when desired. The motor in this model has the inlet passage around the sides of the cylinder, with the carbureter at the rear, and the fresh charge is passed through one part of this passage into the crankcase, where it assists in cooling the piston by being deflected into the under part of the latter when in its lowest position. The charge then passes through the transfer passage into the cylinder. The bore of this motor is 4 inches, probably the largest of any air-cooled two-stroke motor in existence. On the 5 h. models, shown with both flat belt and chain transmissions, the carbureter is fitted at the front of the motor and has a metal splash guard over the air intake, preventing oil from the relief valve from splashing in. The compression relief valve is fitted with a casing whose apertures are walled so that all possible oil is retained therein until drawn off through a plug in the bottom. A spring seat post with shock absorbing device of novel design and the characteristic grip and hand lever control on the right handlebar single out these machines in a field where novelty is rampant, as does the cork insert pulley with grip operated idler on the flat belt models.

THOR

THOR machines, the product of the Aurora Automatic Machinery Company, 1307 Michigan avenue, Chicago, Ill., were exhibited in three models, 13-M, 13-W and 13-V. The M model was of 4 h. and fitted with chain drive with under-gearing and Thor multiple disc clutch; the W model was of 5 h. and chain driven, but had the company's planetary two-speed gear in the rear hub. This gear and the disc clutch on the crankshaft was controlled by a T-head lever which "selected" the high or low speed as the grip was turned to be parallel to the frame or at right angles to it. The rearward position of this lever was with the clutch disengaged and the gear at neutral, while a forward movement first engaged the gear and then the clutch. The U model was the twin, with its distinctive 50-degree cylinder angle and ball-jointed inlet operating rods, these also being found on the 5 h. single. The firm's mechanical oiler was also fitted.



The White Models Featured the Thor Exhibit.

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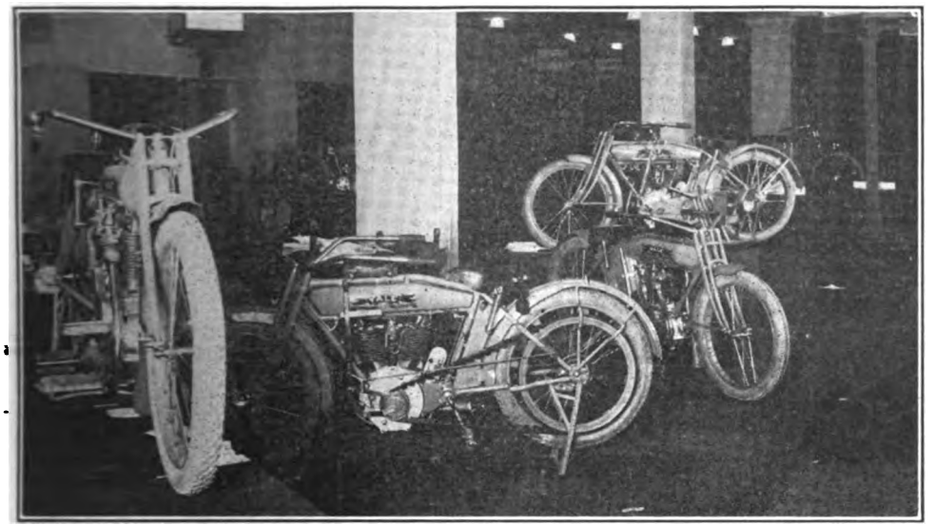


Twins and Singles Shared Interest at the Yale Stand.

YALE

FOUR machines, two of which were twins, were shown at the exhibit of the Consolidated Mfg. Co., 1730 Fernwood avenue, Toledo, Ohio. The third and fourth mounts were singles, while the twins were shown in both chain and belt drives. To one of the twins a sidecar, of the company's manufacture, was attached and to another the Yale tandem attachment. All were fitted with the characteristic Y-A seat post device, foot rests and auxiliary brake pedal leading to the operating lever of the Corbin coaster brake in the rear hub. On all models, the cylinder flanges are horizontal, which means that on the twins they are at an angle to the cylinder axes. A clean crankcase and positive feed oil-pump are features. The exhaust valve lifter is operated by a finger lever on the right handlebar under the grip and an oil window is fitted to the crankcase at the right side. The gears are unique in this product in having helical teeth instead of being of plain spur type. Dust sleeves are fitted to the valve mechanism to keep out grit, etc. The singles were of 5 horsepower with flat belt and chain drive, and the twin of 7-8 horsepower with chain or V-belt. The sidecar was of the canoe type with metal body and a unique four-point suspension, the front bars leading to a U-piece which fits to the top and brace tubes of the frame, but does not touch the tank. An electric lamp with storage battery having a capacity of 60 ampere-hours was shown.

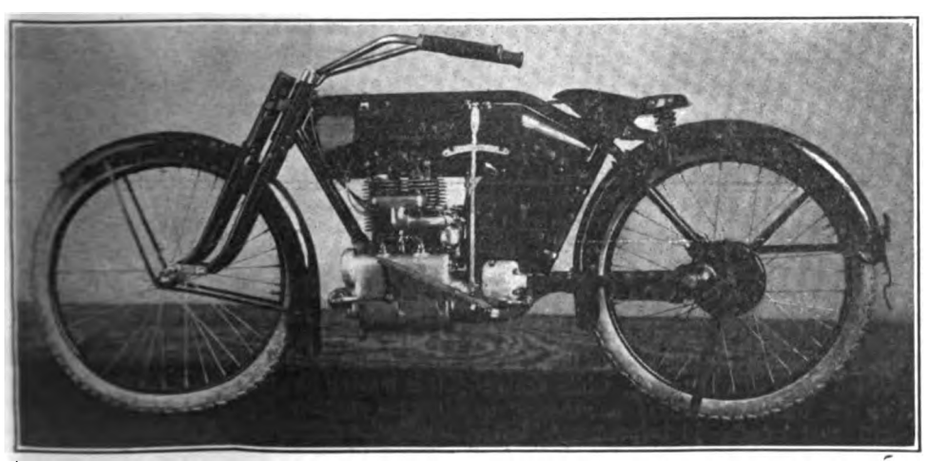
The 7-8 Yale twin has shown 9.2 horsepower at the rear wheel on block test, although having the same piston displacement as other 7 h. twins. The flywheel has been increased to 11 inches diameter, and the weight is 22 pounds, making for steadier pulling. The motor is of the T-head type, with inlet over exhaust valve in a common chamber. The fork is of the compound spring Yale construction, fitted with shock absorbers, in the front member. Quarter-inch steel balls are provided in the fork head set, cones and cups being turned out of the solid stock, and ground and hardened. Pounding out of these parts is eliminated as far as possible, and steering is rendered easier by this construction.

VERTICAL T-HEAD MOTOR ON M-B

WITH a two-cylinder vertical motor and final drive by shaft and bevel gearing, the Morse-Beauregard Mfg. Co., 460 Mt. Elliott avenue, Chicago, Ill., is bringing out the M. B. motorcycle, Model A, for the 1913 season. The general lines of this model are similar to those used in the 1912 product, but a two-speed sliding gear is now fitted, this being controlled by a lever at the left side of the frame.

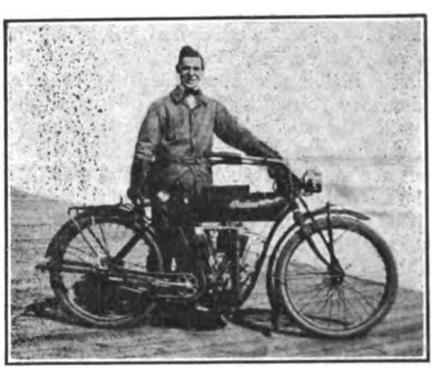
The motor is of the T-head, air-cooled type, with inlet valves at the left and exhaust valves at the right. The crankcase is very deep and is split horizontally. Integral with the case is the covering housing the multiple-disc clutch and change gear, and the unit so formed occupies the lower part of the frame. The cubic capacity of the motor is 50 inches, and the rating is 6½-9 horsepower. The ignition apparatus is located within a casing at the rear of the motor and directly above the front end of the drive shaft. A Schebler carbureter is fitted and lubrication is by splash, with sight-feed on the inlet side of the motor under the manifold. An external band brake, operated by pedal, is fitted, and the clutch is operated by a heel pedal near the left footboard. No pedals are fitted, handle starting giving the initial impulses to the motor.

The frame is of the keystone type, with dropped top-tube giving low saddle position. The front fork is of the spiral spring plunger type and the wheel has a true caster action, making for easy steering. The mudguards have continuous side wings and a rapid-action latch holds the stand in place. The wheelbase is 57 inches and 28 x 2½-inch U. S. tires are standard equipment. The price is $275 with Mesinger saddle. Interest in this mount naturally centers in the vertical motor.



GOOD TIRE SERVICE.

E. FERRIS LAMSON, of Bordentown, N. J., appears in the accompanying photograph on his Indian motorcycle. Mr. Lamson reports having ridden



5,700 miles, and still has the original tires. "This is not only a proof of the durability of the Goodyear tires," says Mr. Lamson, "but it also speaks well for the quality of the New Jersey roads. The tires used are of the 2½-inch size."

SECOND ANNUAL BANQUET

MANY out-of-town guests were presents at the second annual banquet of the Cleveland Motorcycle Club, which was held on Wednesday evening, December 8, at the Gillsey Hotel. Toastmaster John Henry, of Buffalo, N. Y., was unable to attend on account of illness. P. H. Goodull, of the U. S. Tire Company, acted in his place. Among the out-of-town visitors to speak were George Puls, of the Harley-Davidson Company, and I Schreyer, of New York, who gave an interesting address on the good roads movement and also made arrangements whereby accounts of the week end runs of the club will be published in the Cleveland *News*. Rubber hatchets which were furnished by the City Auto tire Company were distributed as souvenirs.

AT the business meeting of the National M. C., of Washington, D. C., to be held January 29, the club will decide whether to accept a proposition for the use of a clubhouse on the new Baltimore-Washington Boulevard during the summer months.

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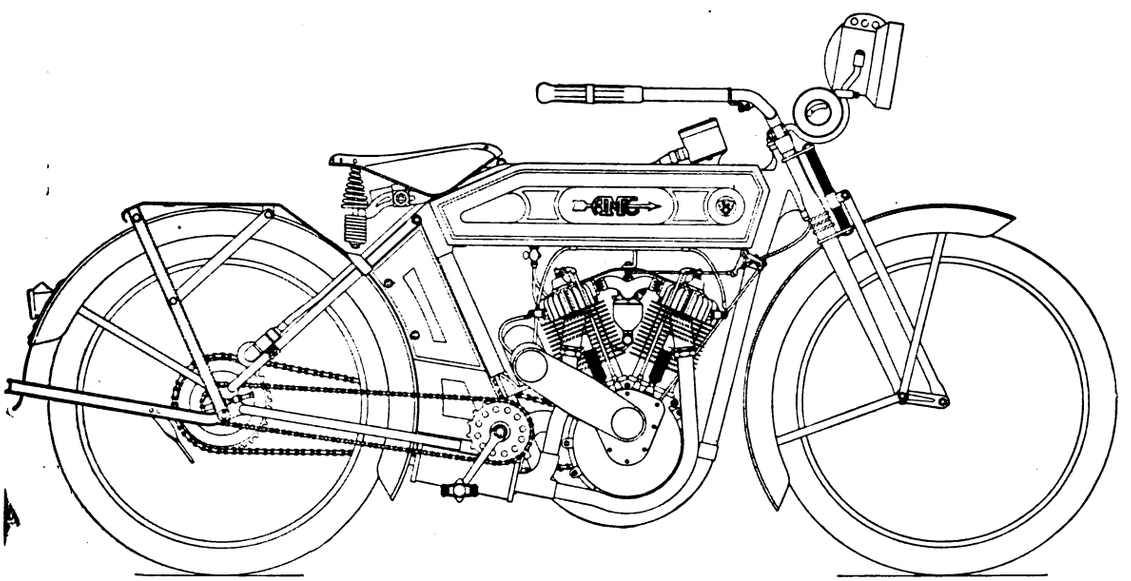


UNUSUAL interest attaches to the accompanying illustration of the "AMC" machine, in view of the claim made by its manufacturers that it is the first mount to be placed on the market with complete equipment for the road. It will be noted that the machine carries a headlight, tail-light, luggage carrier and speedometer with rear wheel attachment. While this innovation naturally involves additional expense, it is one calculated to impress riders favorably because of the fact that the mount is prepared to meet all requirements when it is sold.

STANDARD BEARINGS

ROLLER and ball-bearings, for service in all parts of the complete motorcycle and of "Standard" manufacture, are the product of the Standard Roller Bearing Company, Fiftieth street and Lancaster avenue, Philadelphia, Pa. These "enemies of friction," as they are aptly called, are made to carry any load which will be put upon them in even extraordinary circumstances, and are made to take thrust and radial loads according to the work to be done. The roller types are made with both taper and cylindrical rollers, while the ball types are "filled" and "silent" in annular and in cage thrust types. The same type of construction is to be had with rollers in place of balls. The slogan of this firm is "Why not Standardize?"

TIMKEN ROLLER BEARINGS.

ESPECIALLY adapted for use in hubs in place of the ball type of bearing frequently used is the Timken roller bearing, made by the Timken Roller Bearing Company, Canton, Ohio. Bearings so fitted need no adjustment and take both radial and axial loads by the characteristic Timken cone construction. A full line of these bearings was shown on the company's stand.

GARGOYLE MOBILOIL.

GARGOYLE Mobiloil, manufactured by the Vacuum Oil Company, of Rochester, New York, was displayed at the Garden. This company produces a grade of oil for each type of motor, according to the catalog, which contains a tabulated list of all makes of machines and recommends the grade of oil best suited for each.

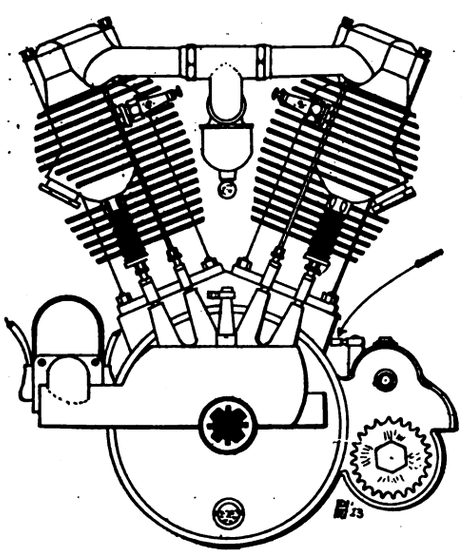
ELECTRICAL SPECIALTIES.

MOTORCYCLISTS who have interested themselves in electrical lighting systems for their mounts found several features to attract their attention in the exhibit of the J. Alexander Manufacuring Company, 1931 Broadway, New York City. The firm markets its electric lighting systems under the trade name of "Jaco."

HENRY SMITH, of Allegan, Mich., states that he has ridden his Emblem more than 2,000 miles without making an adjustment; also that the air put in the tires at the Emblem factory is still in use.

SPACKE UNIT POWER PLANT

ENGINEERS in all lines of mechanical propulsion favor the construction of the motor and change-speed gear in a unit, as making an exceedingly compact, light and clean arrangement and eliminating tendencies toward misalignment, such as when the several units are separate. These qualifications are particularly desirable in motorcycle construction, and the F. W. Spacke Machine Company, Indianapolis, Ind., has brought out a unit power plant in the 5 h. single and the



New Model of Spacke Motor.

9 h. twin De Luxe motors. The latter type, which is here illustrated, has the two-speed device housed in an extension at the rear of the crankcase and practically a part thereof. On the right hand side of the motor a train of gears is driven from the extension of the motor shaft, and the final gear of this train drives a shaft in the two-speed device. Gears on this first shaft are always in mesh with others corresponding to them on a second shaft which carries the drive-sprocket on the left-hand extension outside of the unit. The high-speed ratio is one-to-one, while the reduction on the low-speed is one-to-two, or one-half that of the high-speed. A lever, shown by the arrow, operates individual clutches which lock the idle gears to the shaft to get the desired speed. With this construction no friction clutch or free-engine device is necessary, an intermediate position of the change-gear lever releasing both clutches and allowing the motor to run disconnected from the transmission, giving a free-engine position.

PERSONS BOOKLET.

THE Persons Manufacturing Company, of Worcester, has published a booklet which is very interesting and profitable reading to those who are interested in motor seats, particularly in view of the fact that so many methods of suspension are being introduced, not only in motorcycle seats, but also in motor frames. It is printed in quiet elegance in four colors and is really an artistic piece of work. This pamphlet is to be placed in the hands of every dealer, and those who have not yet received a copy may have one by writing to The Persons Manufacturing Company.

HESS-BRIGHT BALL BEARINGS.

AS usual, the Hess-Bright ball bearing exhibit at the Show was a comprehensive and highly interesting one. It embraced the firm's motorcycle ball bearing type, which has proved its entire dependability in Flying Merkel motorcycles, in addition to a wide range of bearings of high quality for other uses. A practical folder, giving tabulated information relative to the various Hess-Bright ball bearing series, was distributed at the company's Show stand.

SCHAFER BALL BEARINGS.

SCHAFER ball bearings, for motorcycles as well as for motor cars and general machine work, were exhibited effectively at the Show by Barthel & Daly, sole American importers of these products. The Barthel & Daly firm has its headquarters at 42 Broadway, where a capable staff is working at top speed to keep abreast of 1913 business.

TOWNSEND GREASE GUN.

IN response to a demand for smaller sizes of its grease gun, the S. P. Townsend & Co., of Orange, N. J., announced at the Show that it is making its guns with a range from 6 to 16 ounces capacity for 1913. A patented device ejects the grease when a small crank is turned, thus working for ease and economy.

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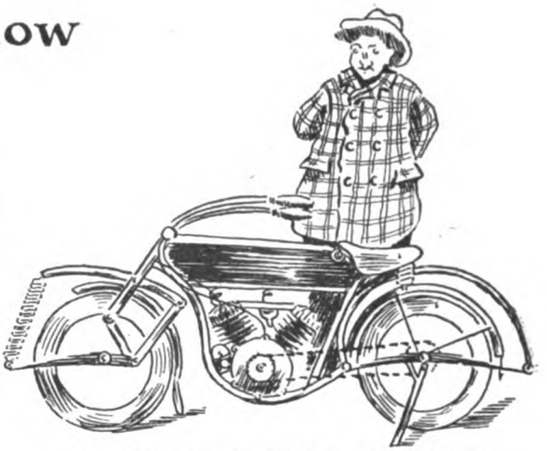
Seen at the Show

by a Staff Artist.

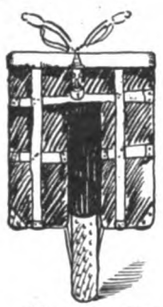
This solves the touring problem for the family man.

The latest thing in clothes. Very natty.

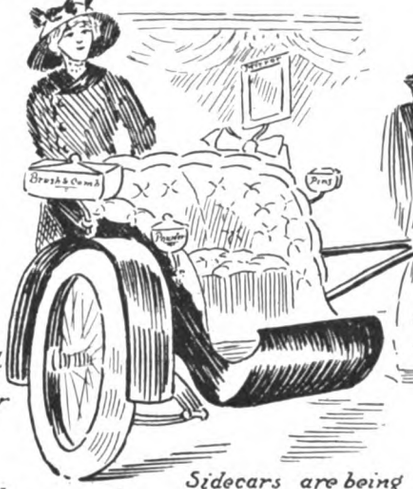


Some of the new styles in spring frames puzzled the oldest riders.

Interest in the classy two-wheeler is no longer restricted to the young set.

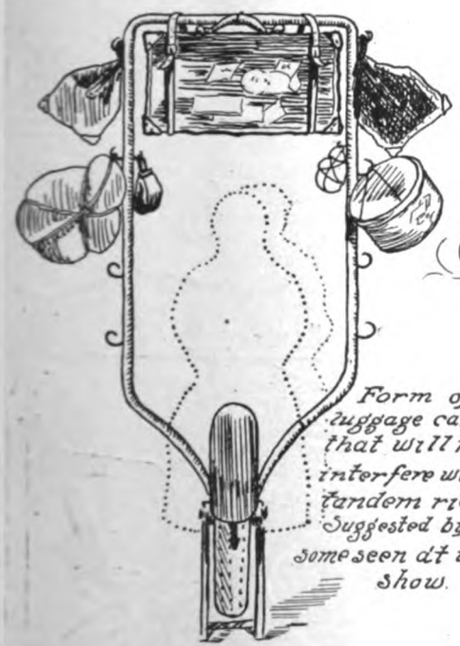


A newly patented trunk effect, luggage carrier

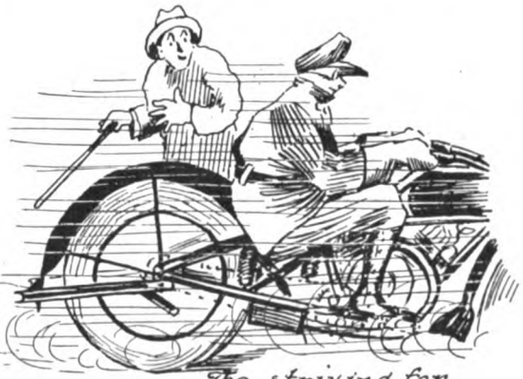


Sidecars are being equipped to please the ladies.

The speedy little commercial car is given all the attention it so richly deserves.

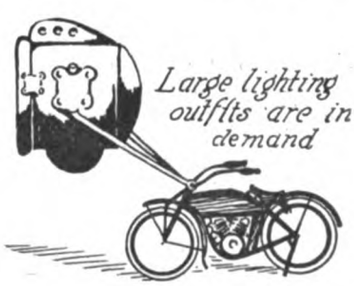


Form of luggage carrier that will not interfere with tandem riding. Suggested by some seen at the Show.



The striving for low saddle position is as pronounced as ever.

Heavy construction, insuring the safety and comfort of rider rather than speed, is aim of the makers.



Large lighting outfits are in demand

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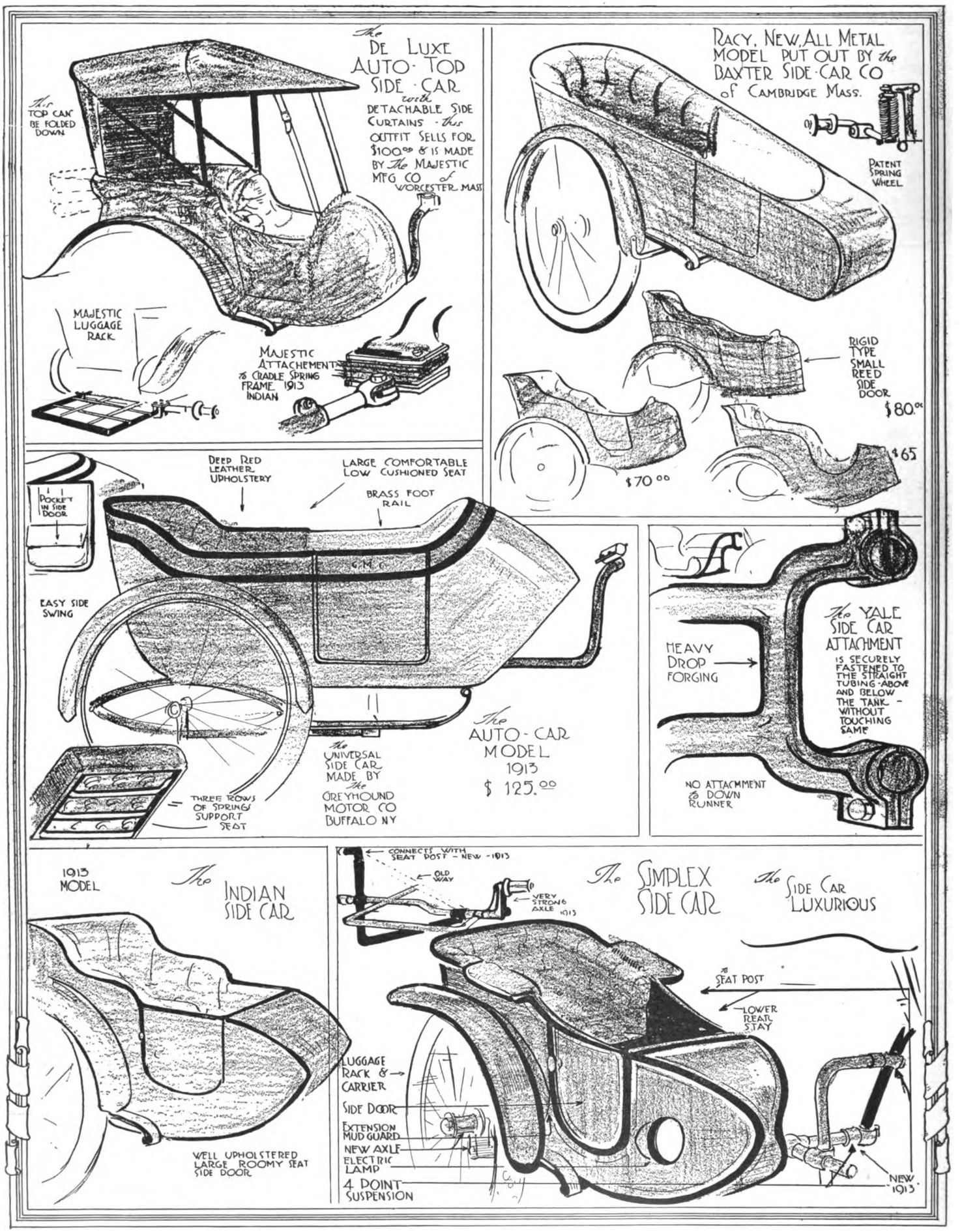

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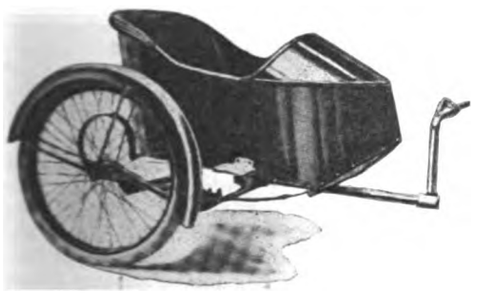
The 1913 SIDECARS

ROGERS SIDECAR A NEWCOMER

AN unusually attractive addition to the list of 1913 sidecars is the Rogers, produced by the Aermore Manufacturing Company, of 1536 Michigan boulevard, Chicago. It is an all-metal type, featuring automobile construction and carrying a torpedo body which is so designed as to reduce wind resistance to the minimum. The length of the sidecar is



The New Rodgers Model.

55 inches over all. Access to the car is assisted by an aluminum step, placed a little above the bottom line of the body; from this step to the top line of the car at the entrance point is only 12½ inches. This is a feature of special interest to women enthusiasts, and serves to overcome the objection sometimes raised that entrance to a sidecar is difficult, especially where side doors are not fitted.

A COMBINATION TYPE.

The seat and back in the Rogers model are a unit, and detachable, so that it is possible to strip them from the attachment and provide a package carrying vehicle. The body is finished with an excellent grade of imitation leather carried over the back in a heavy roll. Maximum resiliency is afforded through the use of long C springs, of special design. These springs are so made that shackles can be eliminated, as these fittings have a tendency to work loose, rattle and permit of lost motion. The springs are fastened with drop-forged clips, 5-16 inch in diameter, with positive lock washers under the nuts. All nuts and bolts in the outfit are secured in this way.

The frame is made of 1¼-inch tubing, dropped for a low center of gravity.

The axle, the right-angle adjusting tube in front and the diagonal brace are of 11 gauge material. The balance of the frame is of 13 gauge. The frame is welded with the oxygen acetylene process, instead of braced, which means that the tubes are melted into each other and thus are stronger at the joining point than at any other place owing to the increase in the amount of metal at that point. The axle stub is also welded, not brazed, to the frame.

The fittings are all of steel of large size, the coupling pins being hardened steel, 9-16 inch in diameter. The clamp fittings are also of steel. The fittings that are applied to the frame of the motorcycle are nickel plated, together with clamps and nuts on the upper right-angle adjusting tube.

All adjustments for lining up the motorcycle and sidecar are by threaded parts that cannot slip, instead of by clamping, and by drawing two coupling pins and loosening one handle nut, the sidecar may be detached in one minute or attached in three minutes.

The rim used on the sidecar wheel will take a 2¼-inch, 2½-inch or 2¾-inch motorcycle tire. The 2½-inch studded tread will be standard, so that the customer or agent can change to a larger size if he wishes.

The fender is of the new deep, semi-circular type, enclosing half of the tire so that there is no possibility of mud splashing either way. Access is given to the wheel for tire repairs by loosening one nut at the rear, driving out the retaining bolt going through the center of the sidecar hub, and swinging the fender clear on its forward support.

A WATERPROOF COVER.

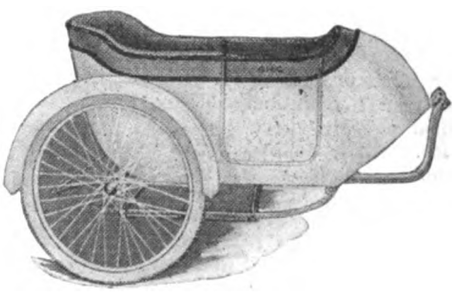
A waterproof canvas cover can be furnished as an extra, snapping down over the top and protecting the trimming and interior of the car from the weather. When the outfit is used as a pleasure car this covering may be utilized as a lap robe for the occupant, and to cover the packages when the sidecar is used as a package carrier.

The car can be used as a passenger vehicle nights and mornings without interfering with is use during the day as a package carrier. The frame and general construction of the sidecar is sufficiently strong to carry all of the loads that can be put in the body up to 400 pounds.

THE GREYHOUND

AT the stand of the Greyhound Motor Company, of Niagara street, Buffalo, N. Y., was shown three models of the "Universal" sidecars, two of which are for passenger service and the third for parcel carrying. That which attracted the most interest was the "Torpedo" model, with underslung chassis and three-point connection to the machine. The body is of torpedo form, with side-door constructed of two plates of 16-gauge aluminum plate and unusually well upholstered, the seat being sprung coach fashion. The color scheme was grey with red leather upholstery and red top band.

Universal Wicker Type.



Universal with Aluminum Body.

To this car was fitted three stands, enabling the user to rest the outfit upright when detached or by the use of the side stand to raise the wheel off the ground when tire repairs are necessary. The other passenger model was in cane, with similar upholstery in red, but used a regular, overslung chassis, and had a much lower side-door. The commercial or van model has a rectangular body with arched cover in black, the cover and body being removable, leaving a tray for carrying large objects, etc. This body was fitted to a frame similar to that of the second model described. The liberal use of forgings and large diameter tubing in the frame was most noticeable in this product.

MAJESTIC SIDECARS.

MAJESTIC sidecars, produced by the Majestic Manufacturing Company, of Worcester, Mass., were shown in several attractive types at the Grand Central Palace. Special attention was attracted to an improved model fitted for attaching the new "De Luxe Auto Top" now being supplied by the company. This top has a light, tough frame of wood which is covered with waterproof material. The top is attractive in appearance, and will undoubtedly find favor with experienced sidecar users. It folds down neatly when not in use and has double side curtains and a waterproof storm apron. This outfit includes the heavy floor mat which is furnished with the other models.

Another new Majestic feature is a neat and sturdy luggage rack, designed to carry a full-sized suitcase. It materially increases

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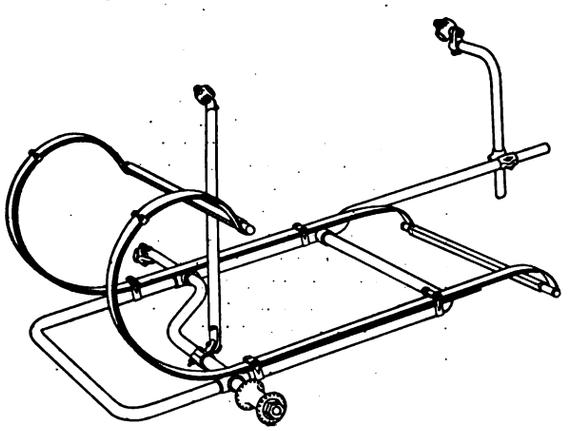
the utility of the sidecar outfit without detracting from its appearance.

A new type of combination tandem and luggage carrier attachment, designed especially for use with the new spring-frame Indian, was also shown included in the Majestic display. A notable feature of this attachment is that provision is made for removing the Indian tool box with its shelf rack and attaching it to the carrier. The tandem seat is well sprung and strong enough to meet all the demands made upon it on the road.

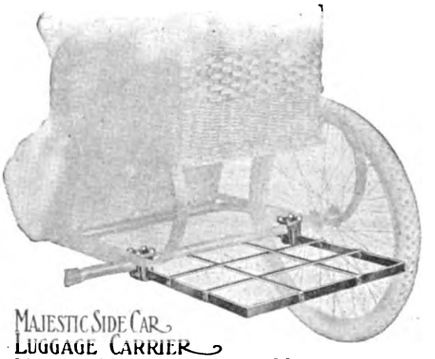
SIMPLEX SIDECAR.

AN improved model of the Simplex sidecar manufactured by the Brooklyn firm was shown at the Grand Central Palace. While following the general lines of the models produced in 1912 the new car presented several features which attracted special attention. The Simplex frame has been strengthened for 1913 and the drop feature is continued, so that in a commercial vehicle it is possible to fit a van at least three inches deeper than could ordinarily be carried.

This enables the outfit to carry an unusually capacious box without having the latter appear cumbersome. More sturdy springing is noticeable on the 1913 model and additional precautions have been taken to avoid trouble with the connections to the machine. The noteworthy point in the Simplex car is that the case carried on the mirror luggage rack makes provision for batteries to supply current for the lamp. The car is well upholstered and the body is finished with gray and black stripping. A new product of the Simplex firm is an auxiliary brace, which may be attached between the frame of the sidecar and the motorcycle frame, just forward of the motor, to give an additional point of fastening to the outfit. With this brace in position the sidecar has four-point suspension.

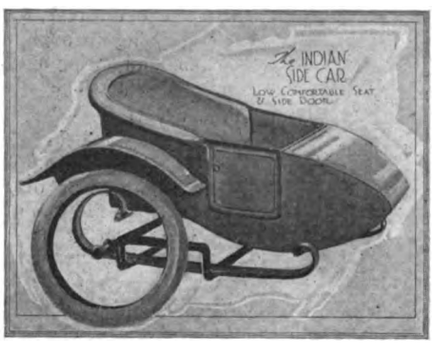


Simplex Sidecar Chassis.



INDIAN SIDECAR

OF Hendee manufacture throughout is the Indian sidecar with underslung chassis and all-metal body of the side-entrance type. The framing is of staunch tubing and double trussed with three connections to the motorcycle. The sidecar wheel is not sprung but, as fitted to an Indian motorcycle, the outfit is in fine balance, enabling the rider to run "hands off" and rendering steering of the outfit remarkably easy. The body has a side door and is most comfortable, having ample leg room and seat space for the passenger. It is upholstered in black leather and the general color is Indian red with this exception. The mudguard is five inches wide and is provided with a cowl at the side and front, being attached to the body instead of the frame. The equipment includes storm aprons and a foot mat, and a tool-box is fitted in the body under the removable seat.

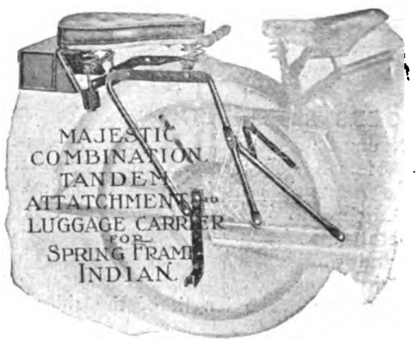


BAXTER DELIVERY VAN.

FEATURING the Grand Central Palace exhibit of the Baxter Side-Car Company, 119 Broadway, Cambridge, Mass., was a new commercial van, which, like the pleasure attachments of the firm, is supplied with special joints for attaching to spring-frame motorcycles. The delivery van is to be furnished in two types, No. 1 being constructed for loads up to 600 pounds and listing at $75, while No. 2 is built to carry 400 pounds, and is sold at $65. Both models are supplied in either wood or metal body construction, and there is little difference between them, aside from the extra capacity of Model No. 1 and some minor refinements. The standard line of Baxter pleasure sidecars was also shown; three of these have the special Baxter spring wheel feature, which contributes materially to easy going on heavy roads. The pleasure cars are made in reed, willow and rattan.

RAPID FEDERAL GROWTH.

RECENT reports from the Federal Rubber Manufacturing Company's plant, at Milwaukee, Wis., show a remarkable growth in this company's business. The main factory building is a ten story structure, and there are five others, embracing 250,000 square feet of floor space. Additional factories are being built on a five-acre plot, and the construction work is being pushed to the utmost. The growth is due largely to the efforts of the present management, B. C. Dowse, president;

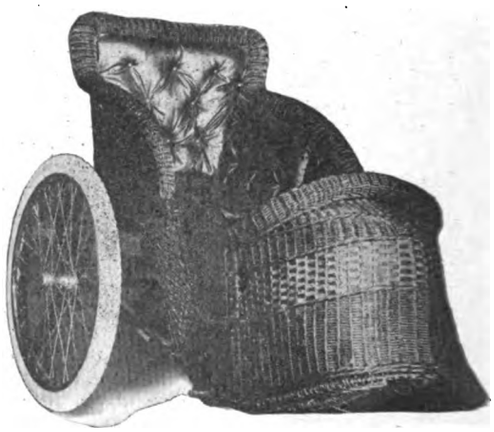


H. A. Githens, vice-president, and Richard Ward, secretary-treasurer. Here are some figures that will show the company's rapid growth. Its original capital was $1,000,000. On January 1, it was doubled to meet building and production requirements. During the first six months, to January 1, 1912, the business footed up to $96,000. In the next six months, to July 1, it jumped to $510,000, and by January 1, 1913, it is believed it will have passed the $1,000,000 mark. President Dowse states that indications pointed to a $4,000,000 output in 1913. Looking at the company's growth from another angle, there were only 38 men at work on July 1, 1911. On July 15, 1912, the workmen numbered 825. The Federal rugged tread non-skid has scored a remarkable success.

STOCK OF SUPPLIES SOLD

HAVING sold its stock of bicycle and motorcycle supplies to the New York Sporting Goods Company, of 15 Warren street, the Wilson Trading Company, of 46 Cortland street, New York City, announces that it will devote its entire attention to the retail trade.

MINNEAPOLIS, Minn., has been added to the list of cities employing motorcycles in their fire departments.



A Roomy Baxter Model.

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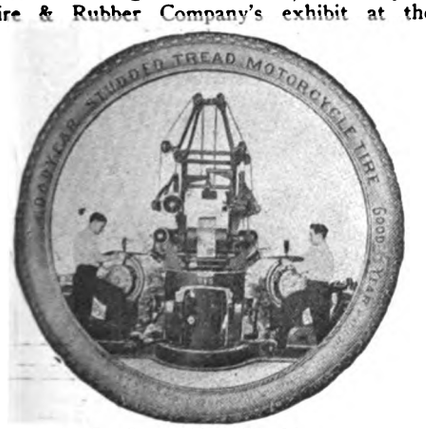
With the TIRE-MAKERS

TIRES THAT STOOD THE TEST.

THE tires that withstood 21 hours of continual pounding at the terrific speed of 65 4/10 miles an hour, for 1,374 miles on the Brighton Beach Motordrome, were one of the most interesting features of The Goodyear Tire & Rubber Company's exhibit at the



Goodyear Tire Machine.

Show. "The result of this race marks an epoch in the history of tire manufacturing," says S. A. Falor, manager of the motorcycle tire department of the Goodyear company. "Not only was such a tire record never accomplished before, but no tire manufacturer had ever hoped to achieve such durability as these tires developed. For 1,374 miles, 21 hours, Goodyear motorcycle tires were run under load by George Lockner and William Shields, the Brighton winners. McNeil and Eckel finished second, having a total of 1,371 miles to their credit. Chapple and Wray finished third after reeling off 1,365 miles. All had Goodyear tires. At the end of that period the tires were taken off and but little wear was noticeable."

Notable at the Goodyear booth were the accessories. There were two show-cases, displaying a complete line of quick repair outfits, protection patches, etc. These cases were offered to the trade the first of the year and have had a remarkable sale. The adoption of show cases will aid dealers in giving motorcycle owners service; they will have on hand the little things riders need.

BROWN SCIENTIFIC TUBE.

WITHOUT a doubt one of the most interesting exhibits in the "Rubber Section" at the Show was the Brown Scientific tube, which is being manufactured by the Voorhees Rubber Manufacturing Company, with main office and works at 18-46 Bostwick avenue, Jersey City, N. J. No fluid or "filler" of any kind is used in the Brown tube and the principle on which it operates is surprisingly simple. The tube is made about the same thickness as an ordinary tube on the rim side and at the center line of circumference it is gradually thickened until it is considerably heavier than the tubes in general use. After the manufacturing process is finished the tube is turned inside out with the heavy frabric surface against the casing. The inner layer of rubber is thus compressed so that any ordinary puncture sustained is immediately filled by the rubber of the tube itself, thus making it self-sealing. Nails were repeatedly driven through the demonstrating tube at the Show without appreciable loss of air.

UNITED STATES TIRES

PRODUCTS of the United States Tire Company were exhibited at both the Palace and Madison Square Garden. U. S. Motorcycle tires in all standard sizes were shown at the Palace with a full line of Morgan & Wright and U. S. inner tubes. In addition to the tire display were shown inside patches, outside tire sleeves, tire tape and motorcycle grips. As usual, this tire exhibit was an impressive one.

NEW DIAMOND FEATURE.

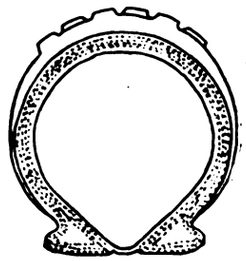
AMONG the rubber companies showing a line of motorcycle tires at the Garden was the Diamond Rubber Company, of New York and Akron. A new feature claimed for the Diamond motorcycle tire is the mileage strip, extending all around the tire and adding twenty per cent. to the wearing surface of the tread. These mileage strips are used on both the safety (Squeegee) and the studded tread types of the Diamond Company.

HEAVIER FEDERAL TIRES.

STUDDED and corrugated tread motorcycle tires in every standard size were exhibited at the Garden by the Federal Rubber Manufacturing Company, of Milwaukee, Wis. In order to keep pace with the extra demands made upon motorcycle tires the Federal company has built its 1913 tires of unusually heavy treads with big studs.

A NEW TIRE.

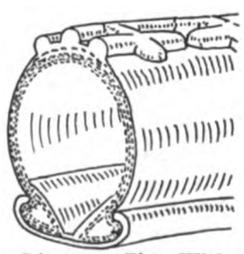
ALTHOUGH the Marathon Tire & Rubber Company of Akron, Ohio, displayed no motorcycle tires at its booth at the Garden, the stand attendants stated that a motorcycle tire, which is being built on the same lines as the firm's well-known automobile tires, will soon be on the market. A catalog describing this product will be mailed upon application.



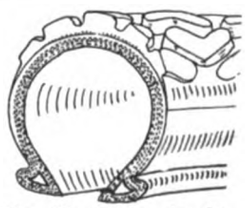
The Republic, in Section.

MOTORCYCLE GARAGE PUMP.

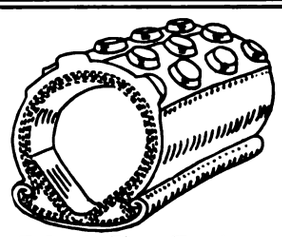
A SMALL electrically operated tire pump, suitable for either automobile or motorcycle garage service, is a product of the Ingersoll-Rand Co., 11 Broadway, New York City.



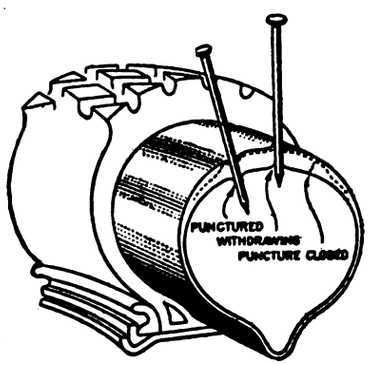
Diamond Tire With Distinctive Tread.



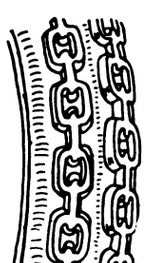
The Marathon, to be Made in Motorcycle Size.



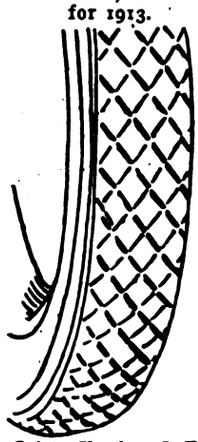
Federal Tire, Heavier for 1913.



Brown Scientific Tube.



United States Chain Tread Type.



Ajax-Grieb Checkered Tread.

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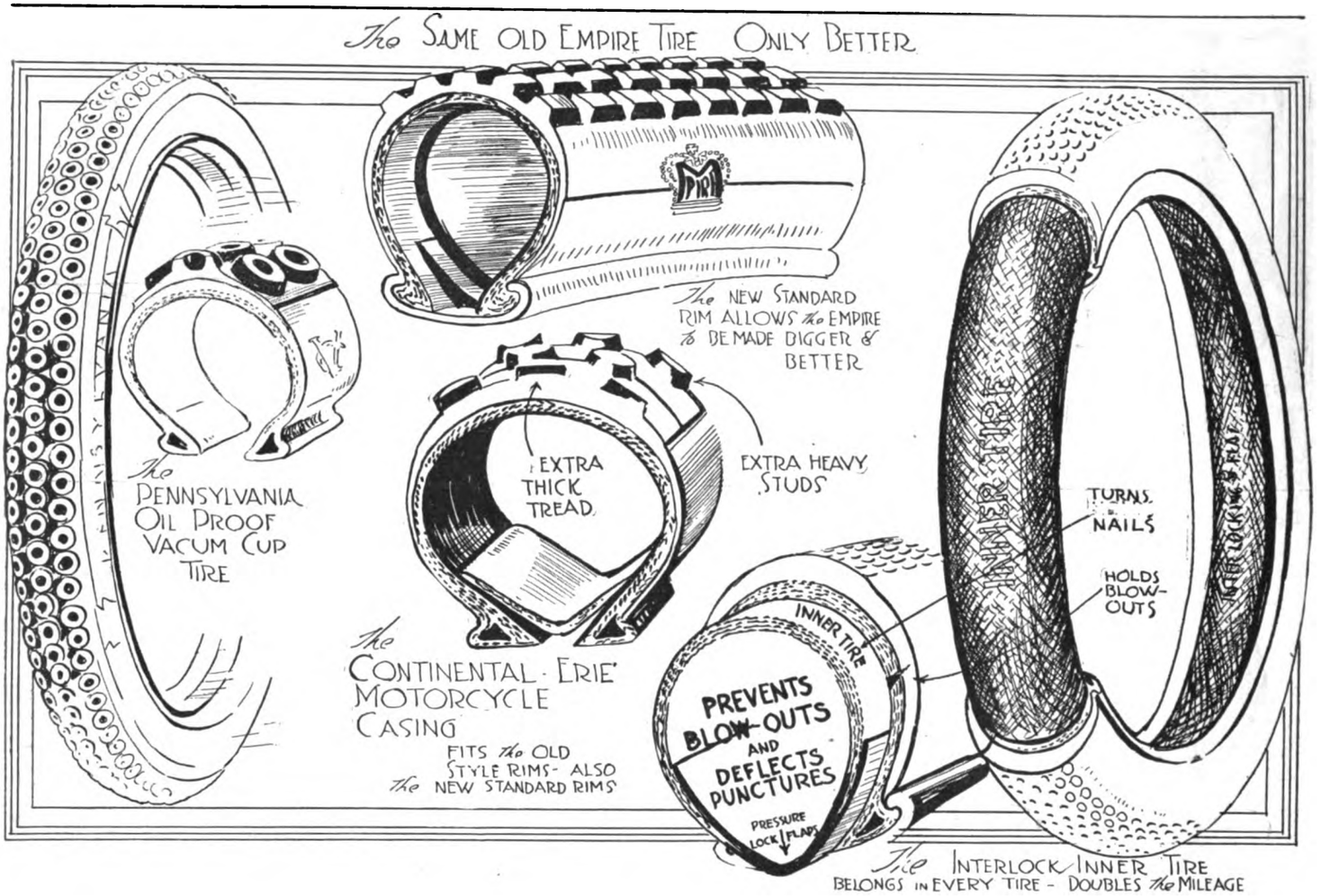

PENNSYLVANIA TIRES.

MOTORCYCLISTS who were not already acquainted with Pennsylvania Vacuum Cup Tread tires, manufactured by the Pennsylvania Rubber Co., of Jeannette, Pa., found much to impress them in the company's Show exhibit. Stress was placed upon the declaration that the new Pennsylvania tires are positively oil-proof. The lines of automobile tire construction are followed scrupulously in the motorcycle casing, and as a result it is capable of unusual mileage. The firm is making a feature of its red inner tube of pure gum, which it backs with a guarantee of 4,000 miles.

NATIONAL PRODUCTS.

"TIRENEW," a compound of rubber in liquid form, prepared for filling cuts in tires and for waterproofing the fabric underneath, is being featured for 1913 by the National Rubber Co., of St. Louis, Mo. The firm is also manufacturing the "Narco" tire cut filler, a pure rubber filler in semi-liquid form, and a special liquid for reviving all rubber materials. Each product is sold in such form that it may be obtained either by dealers or individual motorists.

DYKE CLINCHER SLEEVE.

IN addition to its line of automobile tire accessories the John L. G. Dykes Co., of Chicago, is marketing a special clincher sleeve for motorcycle service. This sleeve is made in one size only for the motor two-wheelers. The firm is represented in New York City by the Clucker-Hixon Co., 32 Park Place.

CONTINENTAL-ERIE LINE.

IN addition to its popular line of motorcycle tires the Continental-Erie Rubber Works, Erie, Pa., showed standard rubber accessories of interest to all riders and directed special attention to its improved motorcycle grips, which have an inner reinforcement of woven steel. This system of construction obviates breaking of the grip at the end of the handlebar, and still permits of the necessary resiliency, so that a combination of comfort and durability is effected. Inner tubes, Non-Slip lag, pedal rubbers, rim strips for fitting to double clinch rims so that single clinch tires may be fitted, spring fork sleeves, spring fork bumpers, inside vulcanized patches, blow-out patches, repair sleeves and other rubber accessories were also displayed.

INTERLOCK INNER TIRES.

THREE sizes of Interlock Inner Tires, manufactured by the Double-Fabric Tire Co., of Auburn, Ind., were shown for motorcycles at the company's Show stand. The Interlock is a complete inside tire; it is placed between the inner tube and the outer casing, thus rendering the tire practically puncture-proof and reducing to the minimum the danger of blow-outs. The resiliency of the tire is not affected and it is stated that tests show an increase of fifty per cent in mileage through the use of the Interlock reinforcement.

NEW TIRE COATING.

A NEW impervious coating for either automobile or motorcycle tires is being offered by the Essex Rubber Co., Inc., of Trenton, N. J. It is claimed that this solution is composed of the finest quality of rubber, often superior to the material in the tires themselves, and that it protects the casings from the harmful oxidizing influence of the air. The Essex solution is highly recommended for the tires on machines that have been laid up for the winter; it may also be used for filling cuts and stone rips in tires. The firm makes outside hook-on patches for motorcycle tires and inside blow-out patches.

TIRE REPAIR SPECIALTIES.

IN addition to its line of automobile tires the American Tire & Rubber Company, of Akron, Ohio, displayed an attractive layout of tire repair materials suitable for general use. One of the company's specials is its "Five-minute" cure vulcanizing cement.

CEMENTLESS PATCHES.

CEMENTLESS patches for tire repairs interested motorcyclists in the Show exhibit of the Braender Rubber and Tire Co., of Rutherford, N. J. The remainder of the display was given up to rubber automobile accessories. Braender cementless patches are made of strong red stock, and are simply moistened with gasoline before being applied to a puncture. No time need be allowed for drying as the patch is vulcanized to the tube in service. The Braender company has a New York sales office at 1987 Broadway.

MORE than forty members of the Richmond (Va.) M. C. attended the club's recent annual banquet.

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LAMPS and GENERATORS' HORNS, SPEEDOMETERS & CYCLOMETERS

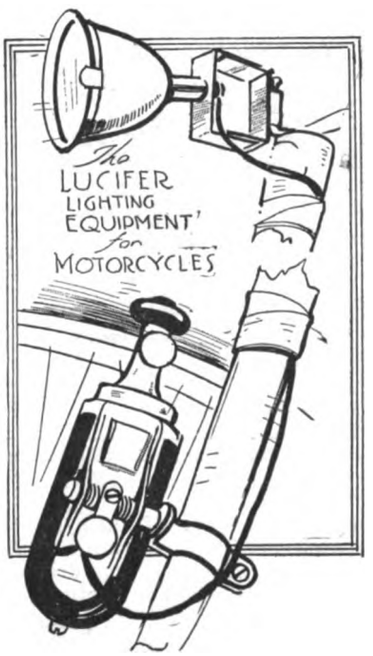
"LUCIFER" ELECTRIC LAMP.

MARBURG BROTHERS, INC., who are now entering the motorcycle accessory field, attracted extraordinary attention with the Grand Central Palace exhibit which was featured by the "Lucifer" electric lighting outfit for motorcycles and bicycles. The small dynamo designed for this lighting system employs a bell-shaped magnet which has proved a complete success in the Mea magneto, introduced to the American market by the Marburg firm. The armature is mounted in the axis of the bell-shaped magnet and is supported by suitable bearings located at the open end of the magnet. At the outer end of the armature shaft a small friction wheel is arranged, which will be in contact with the tire of the wheel when light is desired. The whole device is so mounted that the friction wheel can be brought into contact with the tire or removed by means of a spring and set screw, the latter requiring only a few turns by hand to establish contact between friction wheel and tire. A cable leads from the dynamo to the reflector, which is of simple and neat design.

The dynamo is enclosed and so constructed and supported that the vibration of a motorcycle will have no detrimental effect upon it.

OLD SOL LAMPS.

SPECIAL attention was called to a new type of sidecar lamp and to the company's improved tail lamp at the Show stand of the Hawthorne Mfg. Co., of Howard avenue and Spruce street, Bridgeport, Conn. The new sidecar lamp is listed as Old Sol No. 13. It is a compact and attractive lighting attachment which throws a powerful light in the form best suited for sidecar traveling. It shows a red rear signal and is rated at 100 candlepower. It weighs only 10 ounces and is listed at $2.50. The Old Sol tail lamp has a combination bracket which holds the number plate, and is an unusually compact fitment. Among the most attractive types in the firm's line of larger motorcycle lamps is Old Sol No. 17 and the powerful No. 8; the former has 1,000 candlepower and the latter 1,500 candlepower.



New Marburg Electric Outfit.

SOLAR LAMPS

SOLAR motorcycle lamps were on exhibiplacing on their machines the Never-Brass Manufacturing Company, of Eleventh avenue and 36th street, New York City, and also at the F. A. Baker stand at the Palace. Several new models which had not previously been listed were on display, as well as the old line of Solar lamps. The company reports sales of large quantities of the No. 102 G model. The No. 4 G. H. self-contained gas lamp remains the same as last year, except that it will be fitted with an improved water valve.

NEVEROUT OIL LAMPS.

A LARGE number of motorcycle riders are placing on their machines the Neverout patent oil lamp in addition to a gas headlight. They find it necessary to have with them constantly a reliable oil lamp, as in many of the large cities headlights are not permitted on certain streets, and, furthermore, should the headlight for any reason not prove available, the Neverout oil lamp is always ready for service.

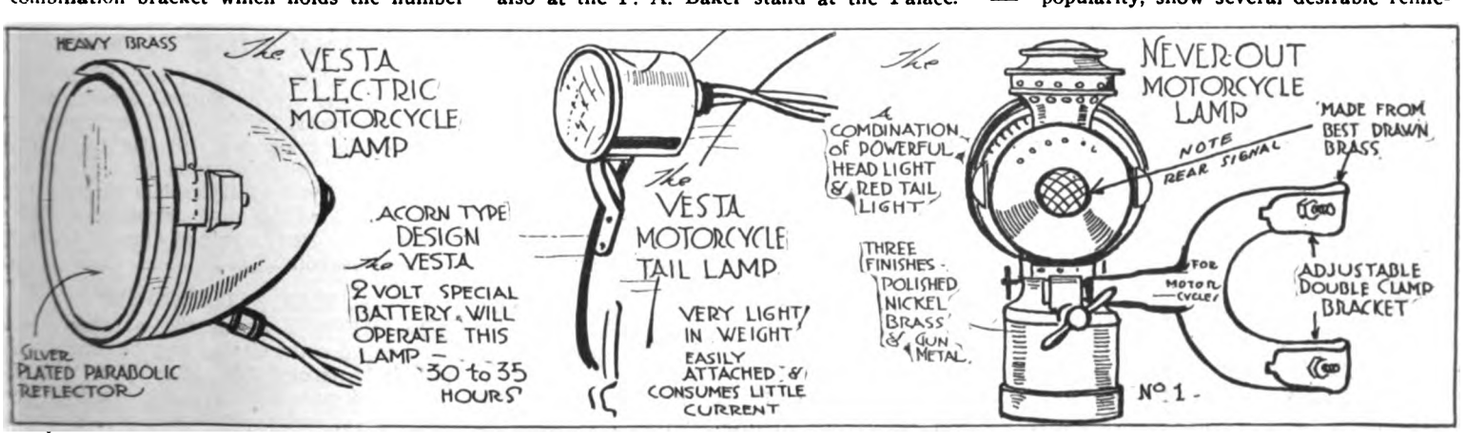
The Rose Manufacturing Co. of Philadelphia, that manufactures this lamp, backs with the strongest possible guarantee, and is putting out a large number of these lamp models. The firm had its usual attractive exhibit of up-to-date lamps at the show.

VESTA ELECTRIC LAMPS.

AN electric headlight of the "Acorn" type and a compact electric tail light for motorcycle service, were shown with the general line of electric lighting outfits displayed by the Vesta Accumulator Co., of 1336 Michigan avenue, Chicago. It is stated that a Vesta 2-volt battery will operate the headlight from 30 to 35 hours on a single charge. The headlight is sold for $6.50, with battery extra. The tail lamp is so constructed that it may be easily attached to the rear mudguard. It sells at $1.75, complete with 2-volt bulb.

INDIANA LAMPS

LUNAR lamps, which already enjoy wide popularity, show several desirable refine-



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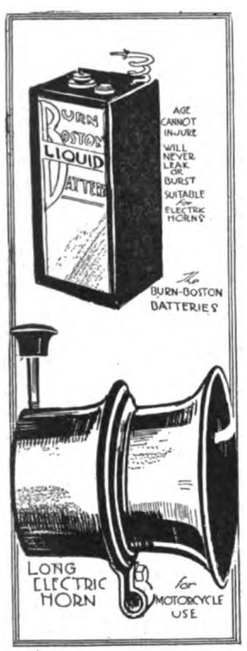
ments for 1913, and the Indiana Lamp Co., of Connersville, Ind., is preparing for a busy season. A leading feature of the Lunar lamp is that it is constructed in one piece, with no rings or pockets to collect dust. The double reflector is another feature to which the manufacturers call special attention.

LONG MOTORCYCLE HORN.

THE G. PIEL CO., Thirteenth street and Boulevard, Long Island City, L. I., is now offering its Long warning signal in a highly attractive model for motorcycles. This horn has won much favor on motor cars, and it is worthy of note that the same features which paved the way to success in the larger instrument are carefully embodied in the smaller device. It operates direct from a push button in the motorcycle type, although the automobile horn may be fitted with a Bowden wire attachment. When the operating button is pressed it sets in motion ingeniously devised mechanism in a small chamber at the back of the horn, and a warning signal of great range is produced. It is stated that the horn is as responsive as any electrically operated instrument, and that its simplicity of construction insures greater dependability. The motorcycle model is listed as the J. M., selling at $10, ready for fitting.



AERMORE EXHIBITS.

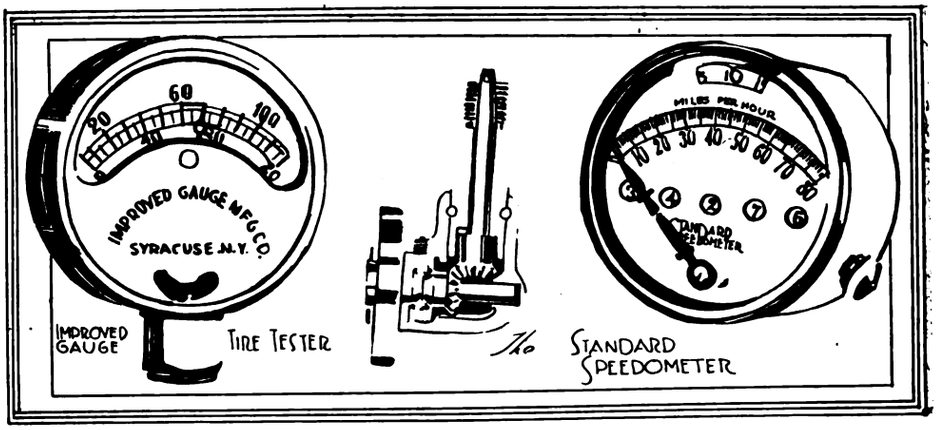
AT the stand of the Aermore Manufacturing Company, of 1536 South Michigan boulevard, Chicago, "The Horn Harmonious" was the center of interest. This warning signal, which is adapted for motorcycles as well as larger motor vehicles, gives a clear, far-reaching signal without being offensive, and is unusually simple in construction. It is self-cleaning and is, therefore, free from clogging troubles. The Aermore horn is operated by the exhaust, four notes being sounded simultaneously when a foot pedal is pressed. The horn is supplied in four sizes, ranging in price from $7.50 to $12.

This firm also handles the Sabo motorcycle lock, the simple but sturdy device which locks a motorcycle securely on the stand and thus protects it against the most ingenious thief. The lock sells at $1.25 and is now being constructed for fitting to the leading types of machines.

NEW MOTORCYCLE LAMP.

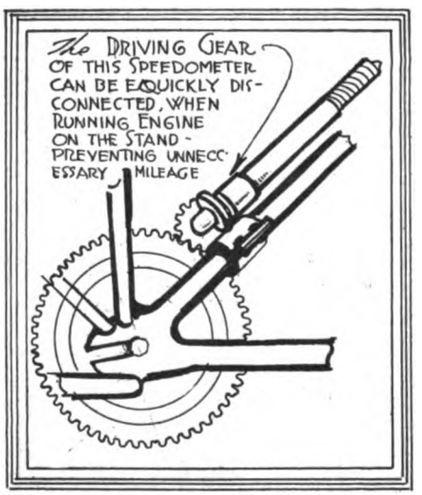
ONE of the latest products of the Chicago Cycle Supply Company, of 22a West Lake street, Chicago, is its new motorcycle lamp. A special feature of this lamp is that no bolts or screws are used in its construction, rivets only being employed to guard against breakage and rattling.

A run to Xenia was recently held by the Lebanon (Ohio) Motorcycle Club.



CORBIN-BROWN SPEEDOMETER.

LATEST types of motorcycle speedometers were displayed at the Palace by the Corbin Screw Corporation Division (American Hardware Corporation), New Britain, Conn. One of their newest improved speedometers was shown attached to a motorcycle wheel. It was demonstrated that the needle will not fluctuate, but remains absolutely steady, no matter how rough the road may be. Another valuable feature is that the instrument may be released when testing on the stand. This latter device will enable the rider to avoid rolling up any mileage, except that which he wishes to be recorded. When the instrument is to be disconnected it is simply necessary to pull out the cable.



Corbin-Brown Attachment.

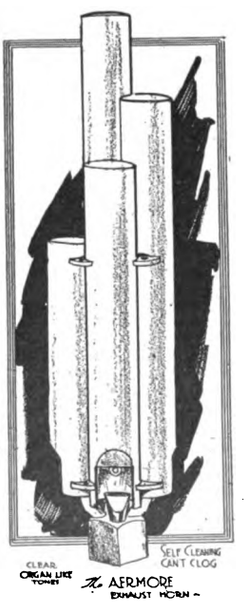
STANDARD SPEEDOMETERS.

THE Standard Thermometer Co., 65 Shirley street, Boston, Mass., displayed its usual line of motorcycle instruments at the Show, and in addition featured the Abell ball bearing pump, one type of which is recommended for use in agencies and motorcycle garages. The pump is operated by a ¼ h. electric motor, which is portable, and will inflate a 28 inch motorcycle tire in about 12 seconds. The pump is supplied complete with reel, hose, wire, plug, switch and pressure gauge.

JERICHO HORN.

A MOTORCYCLE type of the well known Jericho horn is now being shown by the Randall-Faichney Co., of Jamaica Plain Station, Boston, Mass., embodying the same features that have won favor for the firm's larger Jericho and Jubilee horns. This horn can be fitted to any motorcycle that has two inches of straight exhaust pipe. It sells, complete with fittings, at $4.50. It is simple to attach and operates perfectly on either single or twin machines.

The company is also making the Copley motorcycle oil gun with leather-packed plunger. The gun has a capacity of one-half ounce. Another type, with the same capacity, is furnished with solid metal plunger. Still another offering is a special motorcycle plug, called the Mac-Kae Blitz. Even though the porcelain may be broken the spark is unaffected owing to double insulation.



GRAY & DAVIS LAMP.

WHILE Gray & Davis, Inc., of 55 Lansdowne street, Boston, Mass., do not market a special lighting outfit for motorcycle service, the company's representatives at its Show stand called attention to the fact that its smaller type of automobile electric sidelight has been in some demand by motorcyclists who desire a light of unusual brilliancy on their mounts.

THE ACME SIREN.

PROMINENT among the warning signals found at the Garden was the Acme Siren, popularly termed "the little horn with the enormous range." It is stanchly built of nickeled brass, and produces a sound similar to

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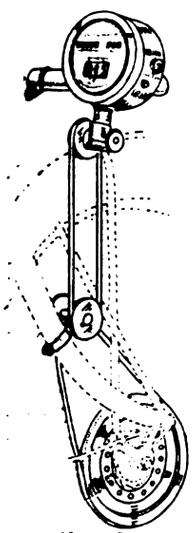
that of the high priced electrically-operated automobile sirens. The construction is unique and simple to a degree. A plain rubber bulb forces the air through a reed which is protected from the entrance of foreign substances and is practically indestructible. This horn promises to enjoy as wide a popularity in 1913 as it did in 1912. The Acme Siren is handled in the United States by the Sarco Engineering Company, 112 Broad street, New York City.

STEWART SPEEDOMETER

AN interesting feature of the Stewart-Warner Speedometer Corporation's output for 1913 is a new motorcycle instrument, with a novel driving system. In order to offset the movement of the front spring fork two belts are used to operate the speedometer. The instrument is installed on the mudguard, or tension spring, where it can be easily read from the saddle. The first belt drive is from a hub pulley to a smaller pulley clamped about half way up on the forkside. From this point the drive is by another small pulley to a fourth pulley which transmits the action to the speedometer proper. This arrangement has been found entirely dependable, and its chief feature is that it permits of unusual flexibility. The new motorcycle instrument is listed as Model D, and is priced at $12, with 3-inch dial, 75-mile speedometer, 100,000-mile season odometer and 100-mile trip register.



New Stewart Speedometer.

NEW GEMCO HORNS

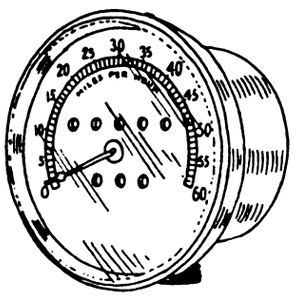
SOMETHING new in the line of an exhaust horn was displayed at the Garden by the Garage Equipment Manufacturing Company, of Milwaukee, Wis. A notable feature of the new horn is that it weighs a little less than three-quarters of a pound. It is attached to the exhaust pipe and operated by a small lever which opens and closes the exhaust valve. The Gemco is the first motorcycle product of this firm. They are made in 1, 1⅛ and 1¼-inch valve sizes and are listed at $2.90 and $3.

B. & L. LAMPS

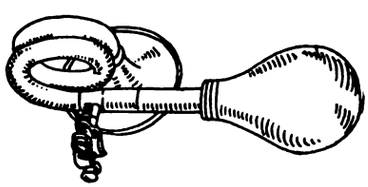
AN attractively arranged line of motorcycle head and tail lamps was featured at the Garden by the B. & L. Auto Lamp Company, of 507 West Thirty-fifth street, New York City. The line of electric motorcycle lamps ranges in price from $3.50 to $4.50, while the No. 24, 8-inch front gas lamp for motorcycles lists at $5. The gas lamp is all nickeled and extra charge is made for brackets.

THE VEEDER LINE.

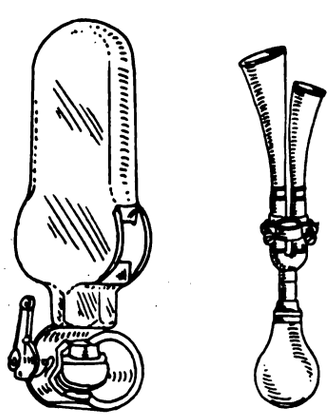
IN addition to the regular line of cyclometers displayed at the Garden by the Veeder Manufacturing Company, of Hartford, Conn., was a model of the firm's latest motorcycle type. This is considerably stronger than the cyclometer which has heretofore been sold for use on motorcycles by this firm. A special bracket supplied with the new motorcycle trip cyclometer makes it easily adjustable to all machines.



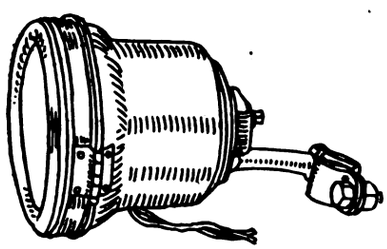
Corbin-Brown Speedometer.



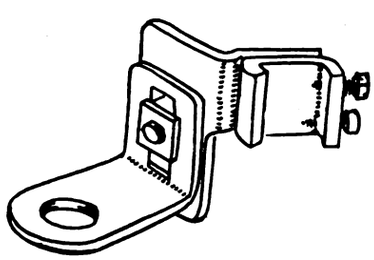
Auto Supply Company Horn.



"Gemco" Horn. Riley-Klotz Horn.



B. and L. Lamp.



Improved Veeder Cyclometer Bracket.

OLD RELIABLE LAMP.

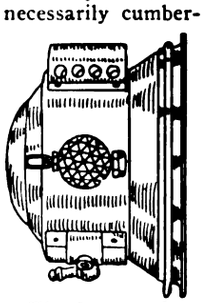
A NEW motorcycle lamp, the Old Reliable, a product of the Victor Auto Parts Company, of Cincinnati, manufacturer of the X-Ray lamps, was exhibited by the Fulton-McCutchan Company, of 1146 Michigan avenue, Chicago. The Old Reliable will be furnished in all nickel, black, red, gray, blue or orange, with nickel trimmings, the colors matching the enamel on machines.

RILEY-KLOTZ HORNS.

THE Riley-Klotz Manufacturing Company, of 8 Division place, Newark, N. J., featured an attractive line of motorcycle horns and Nightingale motorcycle whistles. The whistle, with clamps, is listed at $4, while the horns are sold at various prices, according to size. An unusually striking line of warning instruments was exhibited at the Garden by this enterprising firm.

WEED TIRE CHAINS

WEED tire chains were shown fitted to a motorcycle in the company's practical exhibit at the Grand Central Palace, and this method of display proved especially effective in dispelling the idea entertained by some riders that such chains are necessarily cumbersome. There are no new features in Weed chains for 1913, road reports for 1912 having demonstrated that the product is meeting every requirement. The Weed Chain Tire Grip Co. has its headquarters at 28 Moore street, New York City. Weed chains attracted much attention on M. E. Gale's transcontinental Emblem at the Show.



The Improved Solar Lamp.

A NOVEL TIRE

A PRODUCT of unusual interest for every user of tires on a motor vehicle, motorcyclists included, is the radically new tire offered by the Favary Tire & Cushion Company, of 111 Broadway, New York City. The Favary tire is built up of rubber and leather in such a way that there is nothing to puncture, but owing to a novel method of construction resiliency is provided for to a satisfactory degree. Despite the rather startling disregard of accepted standards of tire construction and total elimination of the pneumatic principle, the makers claim that the product has stood up well under tests. Literature will be sent on application.

EMPIRE INCORPORATION.

ANNOUNCEMENT is made that the Empire Rubber & Tire Co., of Trenton, N. J., capitalized at $1,000,000, has been incorporated and has taken over the assets and liabilities of the Empire Rubber Mfg. Co. and the Empire Tire Co. Empire tires have established a reputation for durability and hold wide favor among motorists.

GRAY SPECIALTIES.

TIRE repair kits, tire bands and other rubber accessories made up the Show exhibit of the Gray Specialty Company, 148 Avon avenue, Newark, N. J. The firm directed special attention to its dust-proof goggles, made with either white or amber lenses.

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CHAINS & BELTS

COVENTRY CHAINS

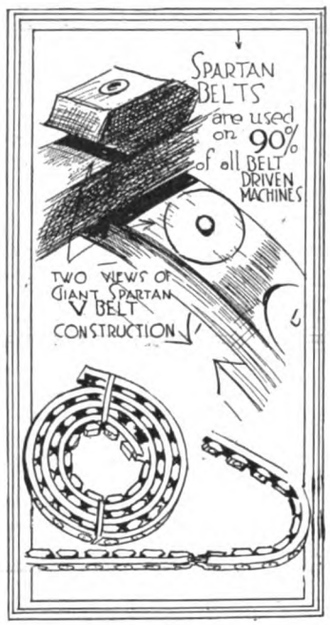
AT the Show stand of the Sarco Engineering Co., of 112 Broad street, New York City, there was a most effective display of Coventry chains, manufactured by The Coventry Chain Co., of England. The Sarco company is sole American agent for the Coventry products, and its exhibit at the Show was the climax of a broad-gauge advertising campaign that has been waged for some time past. As is generally known, the most distinctive feature in the Coventry chain for motorcycles is a "nose," or slight extension of the sides of each link. This provides greater strength and wearing qualities without making the chain heavy or cumbersome. It is stated that this unique construction strengthens the chain at least twenty per cent.

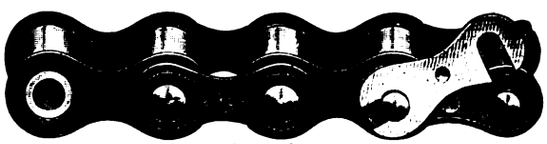
THE FRASSE EXHIBIT.

A STRIKING feature of the Peter A. Frasse & Co. display at the Show was a board, five feet square, on which was illustrated the complete process of manufacturing Renold roller chains. These chains, as is well known, are widely used in motorcycle service, and their reputation for durability and efficient work under all conditions could hardly be strengthened. The Frasse firm is distributing a new fifteen-page booklet just received from abroad which contains much information of prime interest to motorcyclists. A copy will be forwarded upon application to the company's headquarters, 417-421 Canal street, New York City.

SPARTAN MOTORCYCLE BELTS.

IN both V and flat profiles, the Spartan motorcycle belts are one of the leading products of the Graton & Knight Manufacturing Company, Franklin and Norfolk streets, Worcester, Mass. The tannage which bears the name of "Spartan" is used by this firm only, and makes for an ideal grade of belt leather for two-wheeler service. Over 80 per cent. of the belts used on motorcycles by manufacturers making machines with either form of belt transmission are of Spartan make for 1913, according to the statements made by the Worcester firm. Although a large factor in Graton & Knight business, oak-tanned leather is not recommended by them as suitable for motorcycle service, and is not used in the construction of their belts. According to W. W. Shoemaker, the 1913 outlook is far in advance of any previous season. The Graton & Knight company did not exhibit at the New York Show, but will be represented by a comprehensive display at the Chicago Show, its booth number being 29.





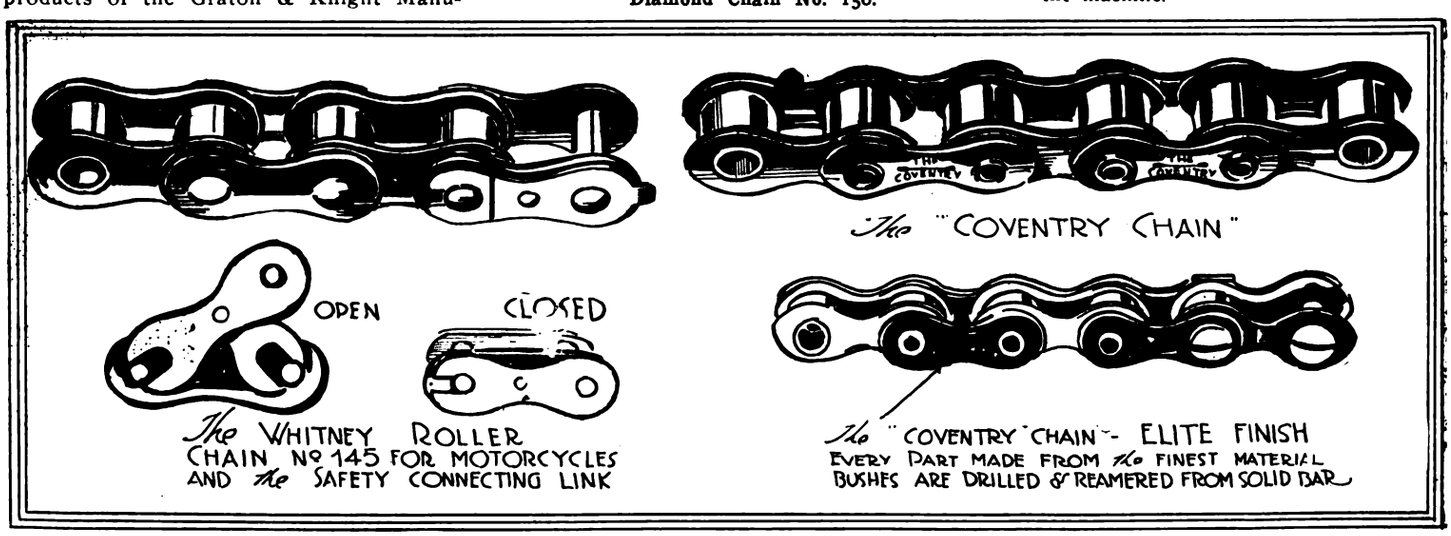
Diamond Chain No. 150.

WHITNEY CHAINS.

NO changes in 1913 products were reported at the Show stand of the Whitney Mfg. Co., of Hartford, Conn., but this did not deter throngs of Show visitors from making a careful examination of the display. The Company's special offering for motorcyclists is Model 145, a roller chain type that has proved its claim to recognition through long and arduous service under the most trying conditions.

BALDWIN CHAINS.

IN both block and roller models, for the pedal side or for the transmission of the motor's power to the wheel, were shown the Baldwin chains, the product of the Baldwin Chain & Manufacturing Company, Worcester, Mass. The well-known detachable type of roller chain was demonstrated and a complete line of sprockets and chain parts completed the display. The block types are designed for the pedal side, while the roller models are for either the transmission or pedal side of the machine.



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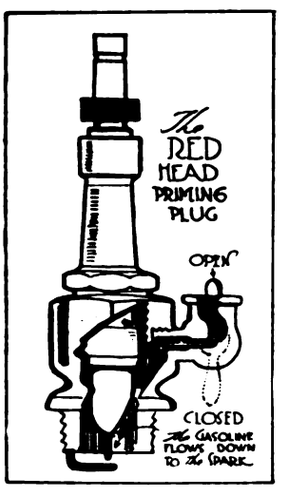
MAGNETOS SPARK PLUGS and other IGNITION DEVICES

RED HEAD PRIMING PLUG.

MOTORCYCLISTS at the Show evinced particular interest in the improved Red Head priming spark plug, manufactured by the Emil Grossman Co., of 250 West Fifty-fourth street, New York City, which was a feature of the full Red Head line. Gasoline introduced through the cup of the Red Head priming plug passes down a canal drilled in the shell, flows along the porcelain and drips directly to the sparking points, where it vaporizes and is ignited. The feature upon which special emphasis is placed is that the gasoline reaches the immediate vicinity of the sparking points, and is therefore capable of exerting its greatest efficiency to effect an easy start. The Red Head priming plug can be cleaned without removing it from the cylinder; if the pet-cock is opened while the engine is in operation the compression will shoot out the carbon. Aside from the priming feature this plug is the same as the Red Head magneto plug.

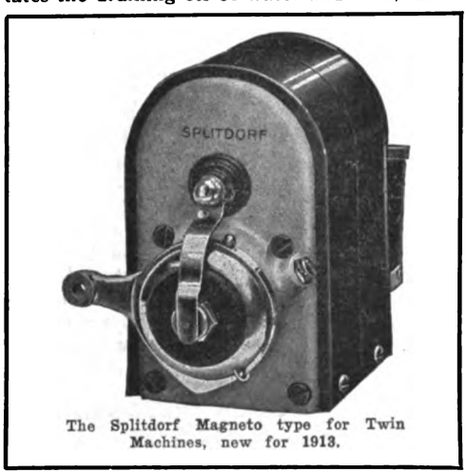


HERZ MAGNETOS AND PLUG

A NUMBER of striking improvements were shown in the Herz magnetos for 1913. Changes have been made in the segment box, which is of heavier metal than in the past, and the advance levers are more substantially fastened on it. The secondary binding posts are arranged so that the insulated cable terminal can be attached on same, thus protecting this connection and making it dust and waterproof. They can be easily detached without dismantling any other part of the apparatus, and as a result no inside parts are exposed so that grit or other foreign matter can reach the working parts. An improvement is shown in the condenser, which has increased capacity, and special care has been exercised to prevent injury to the part through jarring or vibration.

The company has added to its line a new type, Model N, which has the pole pieces extended. It will start the motor easily in a retarded position, thereby avoiding back-kicks and pounding of the motor, and in addition the engine can be operated at very low speed, a material advantage in city riding and wherever caution is necessary.

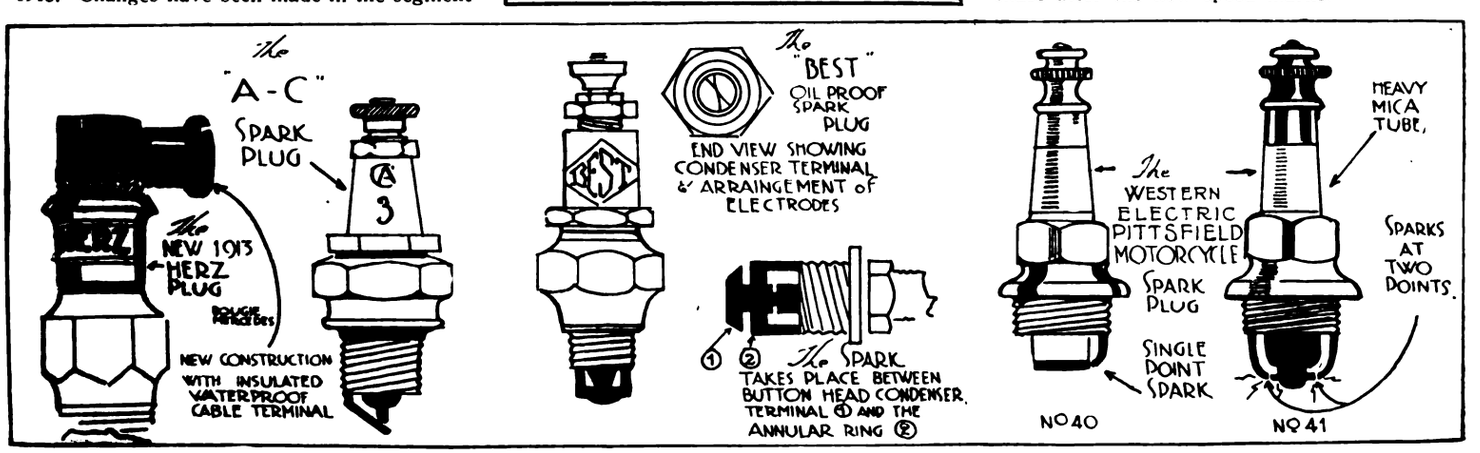
The Herz company is featuring a new motorcycle plug for 1913. It is constructed of unbreakable stone with a taper seat, ground carefully to effect a perfectly gas-tight joint. The outside stone is of a shape which facilitates the draining off of water and mud, thereby avoiding short-circuiting and gapping over of the high tension current to the fitting. The insulated terminal is water and dust-proof and is self-adjustable to the direction in which the cable is running. This obviates strain and trouble from vibration. The new plug is fully described in a leaflet which will be sent on application to the headquarters of the firm, Puck Building, Lafayette and Houston streets, New York City.



The Splitdorf Magneto type for Twin Machines, new for 1913.

JEFFERY-DE WITT SPARK PLUGS.

JEFFERY-DE WITT spark plugs came in for their share of attention, as usual, from students of motorcycle ignition problems. The full J. D. line was shown, including the conical open-end plug for magneto service, the conical closed-end type, the "Petticoat" plug with special alloy electrode and the J-D visible type with a window for determining the condition of the spark. The conical open and closed-end plugs with platinum points supersede the Reliance plug formerly manufactured by this company, which gave such uniformly satisfactory service. Attention was called to the fact that Humiston, in his recent record-breaking trial on the Pacific coast, used one of the Jeffery-De Witt motorcycle plugs which gave him no trouble throughout his 100-mile chase after the new speed marks.



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BURN-BOSTON BATTERY.

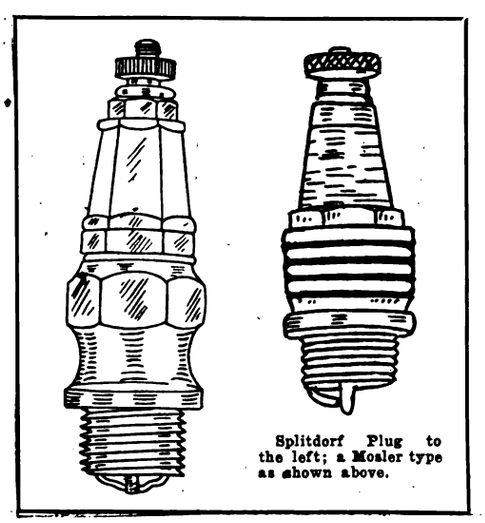
OF unusual interest to the thoughtful motorcyclist was the battery exhibited at the Show by the Burn-Boston Battery & Mfg. Works, of Boston, Mass., in view of the fact that it combines the two essential qualities of efficiency and economy. It is credited with yielding three to twelve times the service of dry cells, will not leak or burst and is being used by the War Department and for many purposes where reliability is the first requisite. A square durable case encloses a strong zinc shell which contains the active elements, zinc, carbon and salt solution. Current is produced through the destruction of the elements. In dry cells the process continues whether the battery is in use or not, but in the Burn-Boston product the process is arrested when the current is not being drawn. This explains the long life of the battery. It is especially adapted for use with electric horns.

MONARCH SPARK PLUGS.

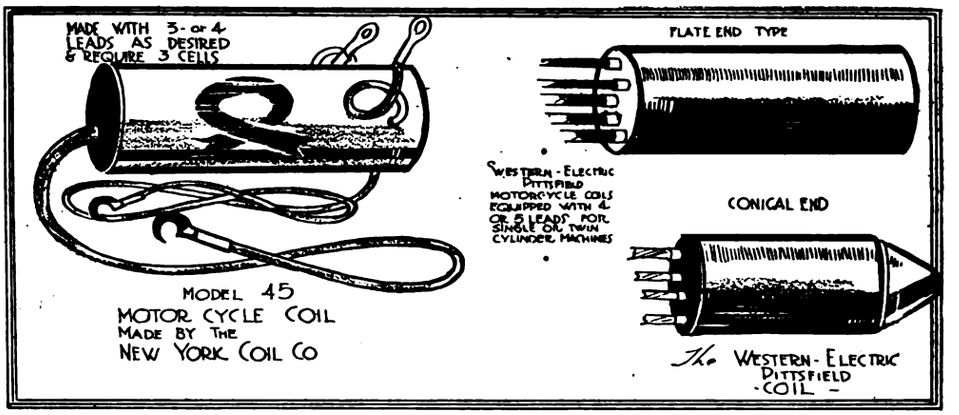
MONARCH spark plugs figured prominently in the exhibit of the Benford Manufacturing Company, of Mt. Vernon, N. Y. Attention was called at the Show booth to the fact that Monarch plugs are fitted on the 1913 models of Excelsior, Iver Johnson, De Luxe, Minneapolis, Thor, Eagle, Jefferson and Flanders machines, and all machines with Spacke engines. The Benford company also displayed models of the Monarch motorcycle priming cup and Monarch timer. The priming cup lists at 75 cents, and can be fitted to all makes of motorcycles. Indian machines are tapped to receive this priming cup, which can be attached in a moment.

MOSLER SPARK PLUGS.

AT the stand of A. R. Mosler & Co., it was stated that the firm is featuring no changes in its standard plug line for 1913, but it is announced that in response to requests from dealers a spark plug with mica insulation is now being offered for motorcycles at a considerably lower price than the firm's highest grade article. This is intended to meet the demand for a cheap but efficient mica plug.

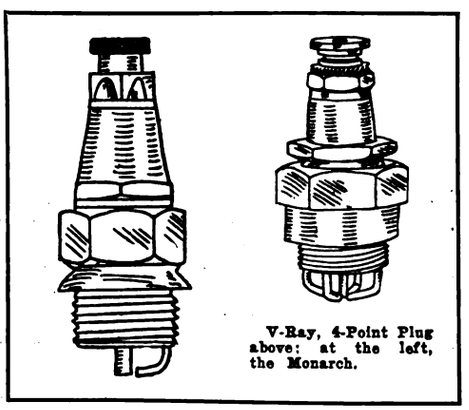


Splitdorf Plug to the left; a Mosler type as shown above.



NEW YORK COIL.

NO changes have been made for 1913 in the motorcycle coil, Model 45, manufactured by the New York Coil Co., 338-340 Pearl street, New York City. The standard type, which has given eminently satisfactory service, was included in the firm's display of high-grade ignition specialties at the Show.



V-Ray, 4-Point Plug above; at the left, the Monarch.

V-RAY SPARK PLUGS

ONE of the busiest firms in its field is the V-Ray Co., which manufactures spark plugs in Marshalltown, Ia. This firm produces a special motorcycle type, embodying the distinctive four-point feature, and attention is being called to the new 1913 price, one dollar. The V-Ray plug is short and stocky and is constructed with the best imported Koalin porcelain. The electrodes are of Hermann Boker's imported meteor wire, and are guaranteed not to corrode or burn out.

SPLITDORF DISPLAY.

AT the stand of the Splitdorf Electrical Co., motorcyclists gave their attention primarily to the new motorcycle magneto types "EU" and "EV," for single and twin-cylinder machines. These improved magnetos were illustrated and fully described in these columns in the issue of January 9, Splitdorf Common Sense spark plugs, representative of the highest skill of the company's designers and engineers, also attracted attention and rounded out an exhibit which was as entertaining as it was instructive for the student of the ignition problem in any of its phases.

"BEST" IGNITION PRODUCTS.

A FULL line of "Best" ignition products was displayed at the Garden by the Best Ignition Company, 200 West Sixty-fourth street, New York City. A motorcycle oil-proof spark plug attracted chief attention among the motorcycle features.

WESTERN ELECTRIC-PITTSFIELD.

FOR motorcyclists the special coil offered for service on motor two-wheelers was a center of interest at the Show stand of the Western Electric-Pittsfield Company, which has branches in many of the large cities throughout the country. The Western Electric and Pittsfield companies recently merged their interests. High quality spark plugs, for motorcycles and automobile service, high tension magnetos, switches, timers and other ignition devices rounded out an attractive display. The New York headquarters of the company is at 463 West street, and the Chicago branch is located at 500 So. Clinton street.

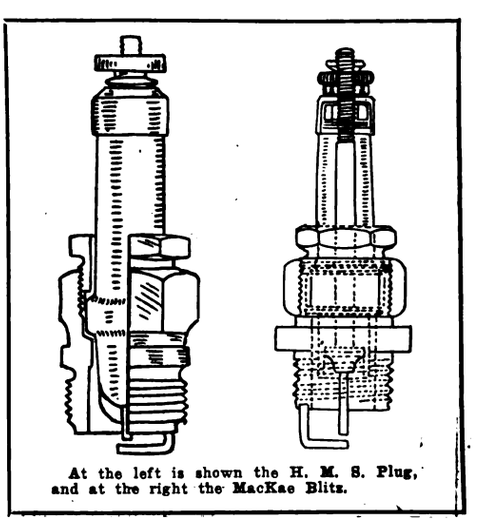
"AC" SPARK PLUGS.

A FULL line of "AC" spark plugs was shown by the Champion Ignition Co., of Flint, Mich., at the Garden. Of particular interest to the motorcycle trade was a special plug for motor two-wheelers, with porcelain or indestructible steatite insulators. This is an unusually short and compact plug, these features aiding it materially to offset the effects of heat and vibration.

WRIGHT AND AUBURN PLUGS.

WRIGHT and Auburn spark plugs were shown by the New York Mica & Manufacturing Company, of Auburn, New York. The Auburn plug is made especially for motorcycles and is said to have been much in evidence on recent race winning machines. Spark plugs manufactured by this company are distributed by the Specialty Sales Company, 802 Homewood avenue, Pittsburgh, Pa.

MEMBERS of the Knickerbocker Motorcycle Club, of Albany, N. Y., recently attended the first annual dance of the club.



At the left is shown the H. M. S. Plug, and at the right the MacKae Blitz.

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CONNECTICUT SWITCH.

A SIMPLE and effective handlebar switch for motorcycles is offered by the Connecticut Telephone and Electric Co., Inc., of Meriden, Conn. The switch is clamped to the handlebar, close to the grip, and has one wire leading from it direct to the magneto. A pressure of the thumb on a handy button cuts out the ignition, and by giving the button a quarter turn it can be removed from the switch, and with the ignition cut out the switch acts as a lock on the machine.

NEW PRIMING CUP.

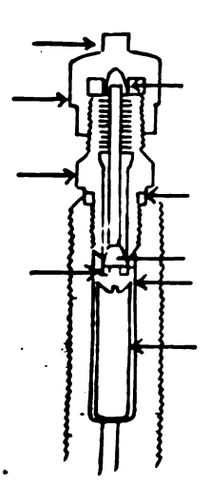
RIDERS who experience difficulty in starting their motors in cold weather will be interested in a new product of the Hagstrom Bros. Manufacturing Company, of Lindsborg, Kan. This is an improved priming cup which is credited with starting the most obstinate motor in frigid weather. The primer is attached to the intake manifold, and is so constructed that it acts somewhat in the nature of an auxiliary carbureter. The gasoline is introduced through a push-down cap in the top of the fitment and is then carried to a small reservoir in the body of the primer. Through one side wall of this reservoir are two holes, opening into a bore, which in turn leads to the intake manifold. The lower of these holes is intended to be below the gasoline level in the reservoir when the primer is ready for action, and the other simply opens out of the air pocket above the gasoline. When the motor is turned over the intake stroke of the piston simultaneously sucks in gasoline through the lower hole of the primer reservoir and air through the upper hole, thus creating a mixture which ignites readily. In other words, the Hagstrom primer introduces an auxiliary mixture into the manifold instead of necessitating the passage of gasoline directly into the cylinder.

SIMMS ANNOUNCEMENT.

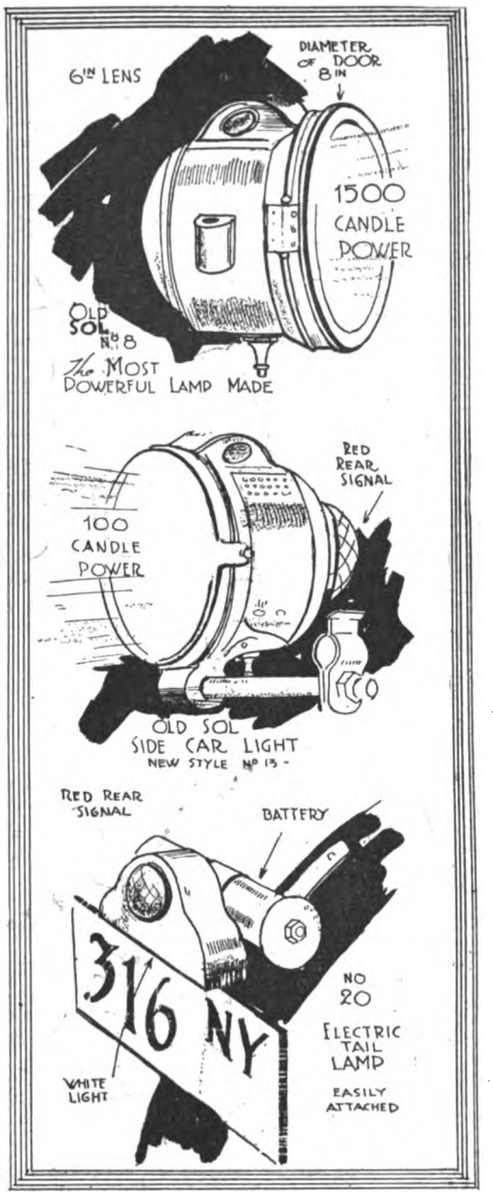
OWING to the fact that its magneto types for motorcycle service had not been completed the Simms Magneto Company, 1786 Broadway, New York City, was obliged to forego a motorcycle display in connection with its Show exhibit, but it is stated that a formal announcement of the new Simms magnetos for the motorcycle will soon be forthcoming.

BURKE TIRE VALVES.

"CUT off two-thirds of the time and labor of tire pumping," is the slogan of the Burke Valve Company, of Cleveland, Ohio, whose product, adapted for automobile, motorcycle and bicycle use, was exhibited in the Show. The Burke device eliminates the usual spring in the tire valve and thus removes the necessity for forcing the valve open against heavy pressure with each discharge of the pump. An ingenious plunger arrangement replaces the spring system.



DURING the latter part of this month the Jefferson (Wis.) M. C. will move into its new clubrooms.



STARK VULCANIZER.

THE Stark improved tire vulcanizer, weighing two and a half pounds and especially adapted for motorcycle repair work, is being featured by the Electric City Specialty Co., 163-165 Adams street, Buffalo, N. Y. It is stated that any ordinary job of vulcanizing can be done, either at home or on the road, in about fifteen minutes. The vulcanizer sells at $2.

ENDURANCE INNER TUBES.

FOR 1913 the Endurance Tire & Rubber Company, of New Brunswick, N. J., is offering a new motorcycle tube. Heretofore the company confined its line to automobile products. The tube is made of a high-grade of rubber and is given a special treatment which adds to its life and permits of more satisfactory repairing in case of a puncture.

A PUNCTURE FILLER.

THE Zip Company, Ltd., 471 Yonge street, Toronto, Ont., offers something new in "Zip," a liquid which is placed in a tire through the valve to prevent loss of air, following a puncture. It is stated that the liquid takes up only 4 per cent of the air space in the tire and that it has given satisfactory service under road tests.

"SLIKUP" FINISHES.

"SLIKUP" metal finish, and a silver finish sold under the same trade name, manufactured by N. B. Arnold, 1 Sigourney street, Brooklyn, N. Y., are among the new offerings likely to interest motorcyclists. The metal finish is a glossy black, which may be used on lamps or any other surfaces that give the rider cleaning trouble. The silver finish may be used to give a lasting nickel surface on any bright part. These products will probably solve the problem of rejuvenating old machines for many motorcyclists when the mounts are taken out for the spring "slicking up" and overhauling.

CYLINDERS AND PISTONS.

SPECIMEN cylinders and pistons in motorcycle sizes were exhibited at the Show by the Manufacturers' Foundry Company, of Waterbury, Conn., in addition to a line of automobile castings. This company has no standard products and makes up its output from customers' designs.

COES WRENCHES.

COES wrenches, in a wide range of sizes, were displayed at the Show by the Coes Wrench Co., of Worcester, Mass., and the stand attaches were kept busy telling the story of progress from the formation of the first Coes company in 1843 to the present efficient factory staff and selling organization. Visitors to the Coes stand were presented with neat stick-pins, made up with a tiny wrench and the souvenirs were in great demand before the Show was an hour old.

YOUNG SUPPLIES.

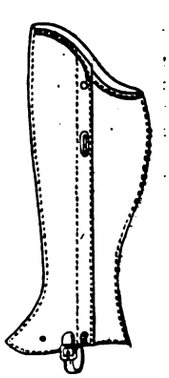
TIRE repair outfits and incidentals in great variety were shown by O. W. Young, 174-180 Frelinghuysen avenue, Newark, N. J. Special attention was directed to the self-vulcanizing patch outfit, which is intended for quick and lasting repairs on the road.

RAYBESTOS FACING.

RAYBESTOS friction facing, the product of the Royal Equipment Company, is of prime interest to motorcyclists, being adapted to multiple-disc clutch facings, cone clutch facings and band brake linings. The fabric is asbestos of long fibre mounted around a wire carcase, and the resultant facing is heat-proof and resists oil, water and gasoline. For use in clutches the facing is given a special treatment for a high co-efficient of friction. Another Royal fitment is the pressed steel brake drum adapted for the operation of either internal or external brakes, or both, on the same drum, without heating.

A WIDE range of metal garage fixtures, suitable for motorcycle as well as automobile service, is offered by the Dover Stamping & Mfg. Co., of Cambridge, Mass. The firm makes strainer funnels in many types and sizes, oil cans and other metal specialties likely to interest motorists in general.

AT the last meeting of the Savannah (Ga.) M. C., the club was reorganized and plans were laid for a 200-mile road race on next Thanksgiving Day.



The Premier legging, manufactured by the Premier Novelty Manufacturing Company, of 83 White Street, New York City.

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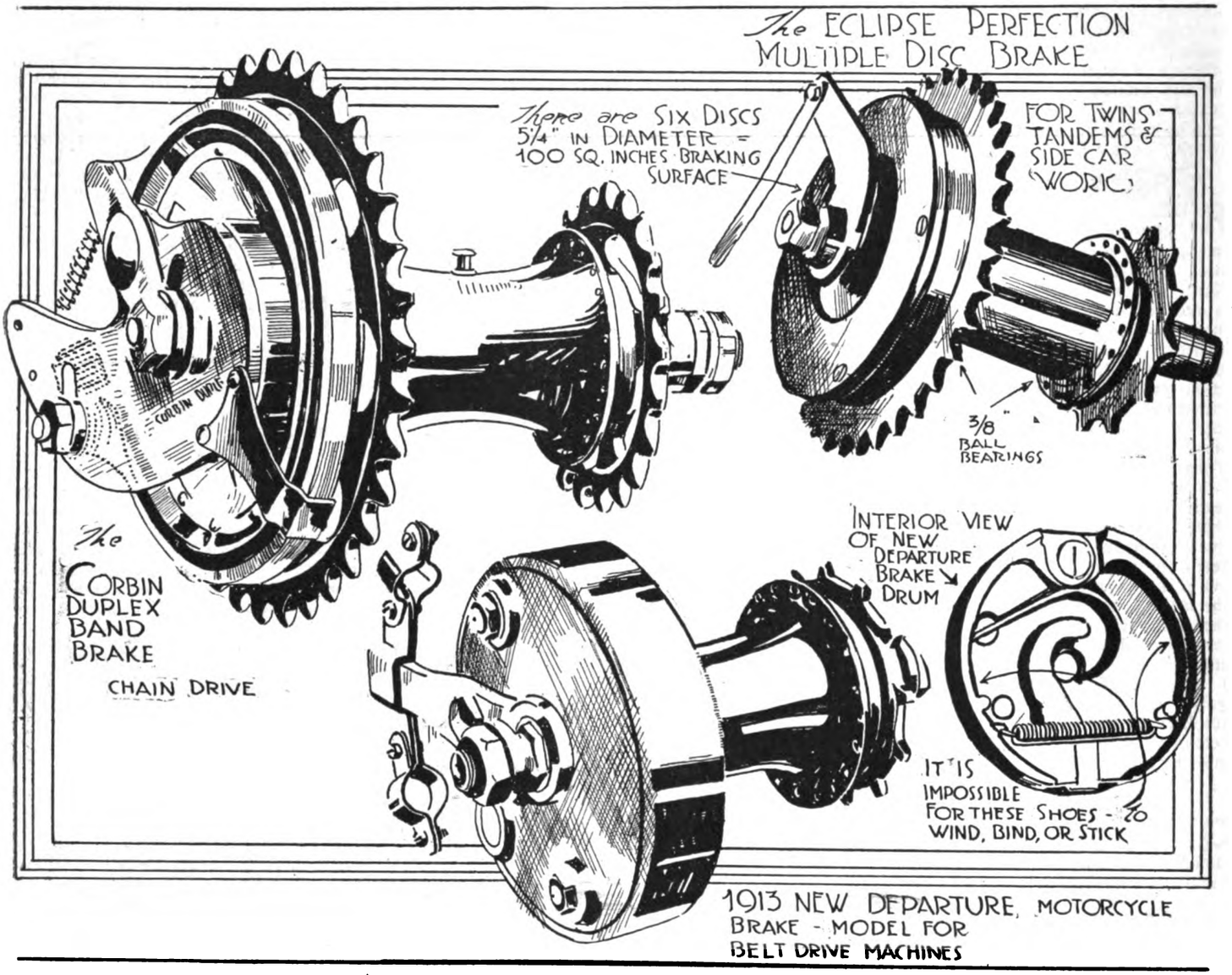
BRAKES SEEN AT THE SHOW STANDS



ECLIPSE MACHINE CO.

FREE engine clutches of the multiple disc type and Eclipse make were the center of attraction at the stand of the Eclipse Machine Company, Elmira, N. Y. Of only slightly less interest to visitors were the coaster brake types, with their ingenious construction and reliability of service. Both the engine shaft and countershaft types of clutch were shown, and models for V-belt, flat belt and chain drive were exhibited, assembled and dismounted. Changes have been very minor; a slight change in the inner worm-supporting ball-race being noted. The Eclipse brakes of the Perfection type have six discs giving a surface of 100 square inches area. Specimens of front and sidecar hubs were also shown.

CORBIN BRAKES.

THE Corbin duplex brake and the front hub for motorcycles attracted their usual attention at the Show from those who make the most of their machines by giving every essential fitting the consideration it deserves. These features with others equally as interesting for bicyclists, made up a display which was not overlooked by any single-tracker enthusiast. The Corbin duplex band brake for motorcycles embodies several improvements for 1913. The arm connecting band is now provided with two projections, thus forming an effective lock nut which securely holds the nut and prevents its jarring loose. It is also much easier to attach than heretofore. A bracket attached to the lower side of the brake arm keeps the brake band from dragging on the drum or sagging when expanded and thus prevents loss of power or overheating.

NEW DEPARTURE BRAKE.

AN absolutely new type of motorcycle brake, seen for the first time at the Garden Show, was displayed by the New Departure Manufacturing Company, Bristol, Conn. The new model has been designed after the automobile type, and embodies all the good qualities known to the auto brake. In talking with a prospective buyer the manager of the booth said: "So rapid has been the growth of the motorcycle of late that some of its supplementary parts have been unable to keep pace with it, and among these is the coaster brake. However, we figure on meeting all demands with our new motorcycle model."

MULTIBESTOS BRAKE LINING

A WIDE range of samples of Multibestos brake lining and friction material, produced by the standard Woven Fabric Co., of Worcester, Mass., was exhibited at the Show. The firm displayed samples of all its products, from the small lining used on the band brake of the Indian motorcycle to the four-inch size used for an oil well drill. It is stated that the Multibestos product is being sold in large quantities to several motorcycle manufacturers, and that it is reported as entirely satisfactory.

IMPORTED SPECIALTIES.

J. B. GROSS, importer for America and Canada of Haedge & Richter products, showed a line of sheet steel parts, pressings and stampings, in addition to tools for the manufacture of automobile and motorcycle tires. The Haedge & Richter company is located in Hanover, Germany, while the Gross headquarters is at 141-145 West Thirty-six street, New York City.

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MISCELLANEOUS

BRETZ ANNOUNCEMENT

"ALTHOUGH not exhibiting the F. & S. product directly at the National shows in New York and Chicago, we are, however, exhibiting them indirectly, as nearly all the cars at the shows use F. & S. ball bearings," said J. S. Bretz, president of the J. S. Bretz Company, sole importers of F. & S. ball bearings.

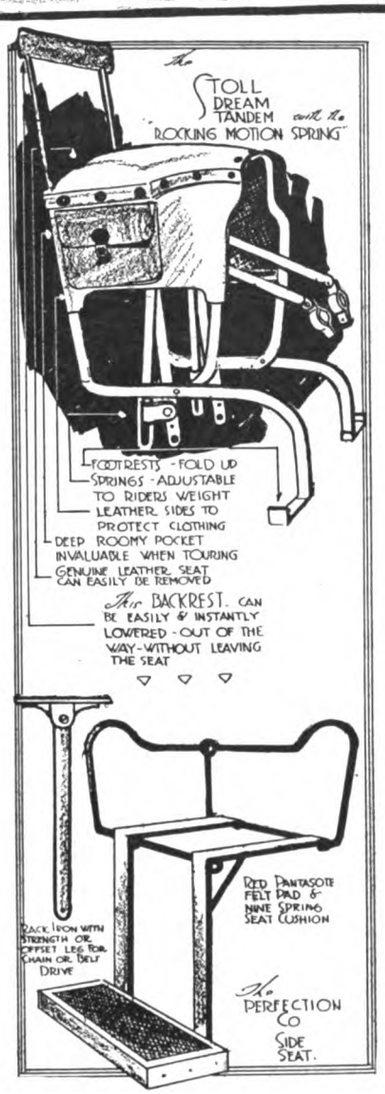
For 1913 Messrs. Fichtel & Sachs, of Schweinfurt, Germany, manufacturers of the well known F. & S. radial and thrust ball bearings, have recently added a new type of ball separator to their other types, the most prominent of which, of course, has been the die-cast aluminum separator so well known in the various arts and industries in which it has been employed. The new separator, a one-piece steel separator, will be known as the "Ribbon" type. This separator is formed from a one-piece, patented unit sheet steel stamping, drawn and formed without joints, welds or rivets in its construction. The separator itself is heavily corrugated and ribbed on one side for added stiffness, and finished in gun metal blue, is light in weight and frictionless.

Its use permits of normally grooved raceways of deeper cross-section than any other make, its correct radius lines thus adding enormously to the lateral wall strength of the inner and outer raceways. The radius of curvature of the raceway on the inner race is made somewhat smaller than that of the outer race, since looking at both races sideways, the outer race curves in a manner concave to the ball and the inner race convex; the outer race, therefore, encloses more of the ball than does the inner race.

YALE MOTORCYCLE LOCK

THE Yale & Towne Manufacturing Company, of 9 Murray street, New York City, makers of the well-known Yale lock for all purposes, also produce a motorcycle lock that is rapidly winning favor among riders. A steel shackle, resembling a long staple, encircles both front fork tubes of the machine, and the ends of the shackle are held in a Yale lock of special construction. The device is adaptable for all makes of machines.

F. & S. Ball Bearings.



HAYES METAL BOXES.

IN its attractive line of metal boxes for general service the Hayes Mfg. Co., of Detroit, Mich., includes a special model for motorcyclists. The latter is intended for use as a tool-box. It has a sturdy lock, is carefully lined to prevent rattling of tools and is provided with bands for attaching over the gasoline tank. This box, with lock, lists at $2.50. It is 10 inches long, three inches wide and three inches high.

NEW PITTSURGH QUARTERS.

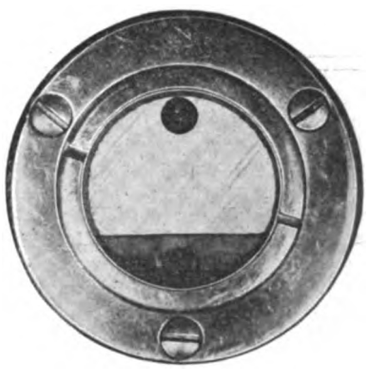
AN informal gathering marked the opening of the new quarters of the Pittsburgh (Pa) M. C. The club now occupies a cozy four-room apartment at Penn avenue and Whitefield street, East End.

STOLL DREAM TANDEM.

ONE of the most complete offerings for the motorcyclist who wishes to carry a tandem passenger is the fitment produced by the Queen City Iron & Wire Works Co., Thirty-third street and Walnut, Denver, Col., under the name of the Stoll Dream Tandem. This tandem is made in two types, No. 1, with a specially shaped seat and back-rest, a mud-shield and a unique spring system that effects unusually easy riding, and No. 2, a light, strong attachment at a lower price. Model No. 1 is well upholstered and has roomy side pockets, held by a strap and buckle, which will be found exceedingly handy on all occasions, and especially in touring. The footrests are so constructed that they may be folded flat against the tandem frame when not in use. The rocking motion in the Stoll Dream Tandem is its most distinctive feature. The saddle remains in the same relative position regardless of the jolting and jarring to which the machine may be subjected. The back-rest may be raised or lowered by the passenger without leaving the seat. This company also makes a sturdy luggage carrier in two sizes, 12 and 18 inches long.

RHINELAND BEARINGS

ANNULAR bearings, adaptable for motorcycle service, are being offered by the Rhineland Machine Works Company, of 140 West Forty-second street, New York City, in addition to a full line of bearings for heavier work. This firm operates factories in Germany, France and the United States. One of its feature products is a self-aligning bearing, in which the entire bearing follows disalignment and the balls are not obliged, when following this disalignment, to slide across the outer race at right angles to the direction in which they are rotating, as is the case in some other self-aligning bearings.



Simplex Oil Gauge.

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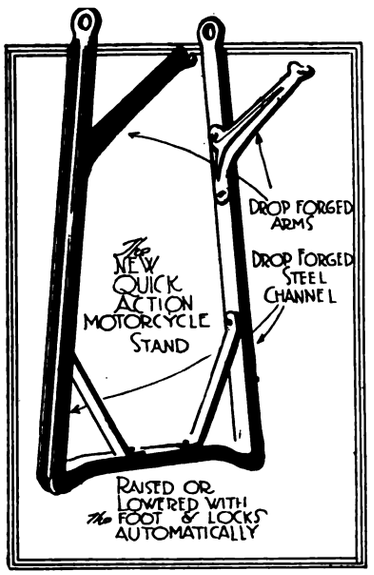
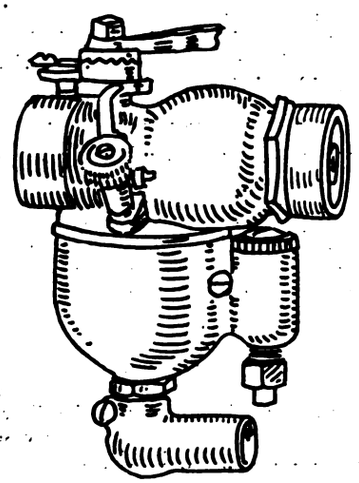


Sturdy Adams Stand.

SCHEBLER CARBURETERS.

IN the New York Show the Schebler carbureter display embraced both the motorcycle and automobile types, but it was announced that arrangements have been made for a special exhibit at the Chicago Motorcycle Show. The latter, being devoted to the motorcycle type exclusively, will treat in greater detail of the firm's offerings for motorcyclists. No marked changes have been made in the motorcycle model for 1913, in view of the fact that the instrument turned out in 1912 met all the expectations of manufacturers and riders.



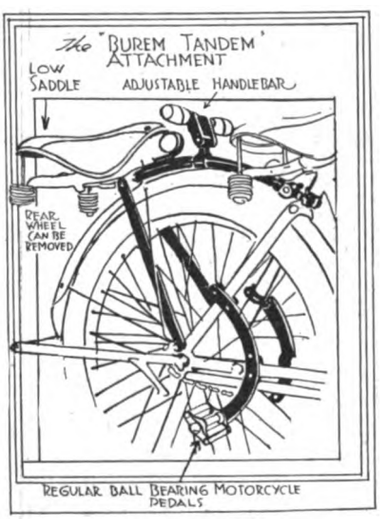
The Schebler.

KINGSTON CARBURETER.

AT the stand of Byrne Kingston & Company, of Kokomo, Ind., it was stated that the firm's Model "Y" carbureter, specially designed for use on small automobiles, is adaptable to motorcycles. This model embraces the latest features of automatic carbureter construction. All air entering the carbureter is taken from a common source, the air inlet being located so as to make it convenient for the attachment of fittings for the conducting of warm air to this point, a necessary feature to properly vaporize the low-grade gasoline used generally at this time.

AT THE ROBERTS STAND.

NO less than nine manufacturers of motorcycle specialties are represented by H. T. Roberts, Railway Exchange Building, Chicago, Ill., and these included clutches, saddles and tool-boxes, carbureters, stands and luggage carriers, belts, and motors. The Eclipse clutches of the multiple disc type for engine or countershaft as well as multiple-disc brakes and sidecar hubs were an important feature of this exhibit, as were also the Adams stands, International Stamping Co.'s mud-guards and chain-guards, Wetprufe belts, Troxel saddles and bags, Ero attachments, and the Heitger carbureters. The Wizard motor is a new addition to Mr. Roberts' line, as well as the Tucker wood-lined rims.



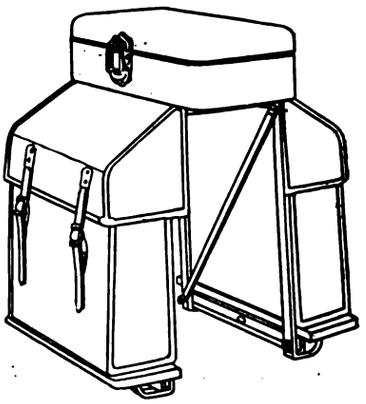
STANDARD TUBING.

AN excellent display of steel tubing parts, for motorcycles as well as for a wide variety of other uses, was shown by the Standard Welding Co., of Cleveland, O., at the Show. The company's line and its standing in trade circles are too well known to need detailed mention, and a feature of special interest was a settee made up entirely of Standard tubing parts which demonstrated more effectively than a catalog the company's scope and the skill of its mechanics.

THE NATHAN EXHIBIT

AN extensive assortment of motorcycle fabric supplies was displayed at the Garden by the Nathan Novelty Manufacturing Company, of 84 Reade street New York City. The firm's latest styles of Koveraul riding garments, and the complete line of Nathan leggings were on exhibition. Such articles as heavy leather tool bags, repair bands, motorcycle covers and lamp covers were also shown, and the booth was a busy one. There is a heavy demand for the Koveraul garment, because of its adaptability for all riding conditions.

Nathan "Koveraul" Riding Suit.



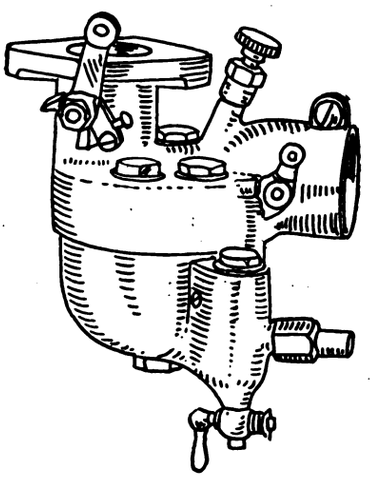
Improved Type of Ero Carrier.

HALCO LEGGINGS

AMONG the exhibitors displaying a line of riders' furnishings was the Hagerstown Legging Company, of Hagerstown, Md. Halco leggings are noted for their long wearing qualities, and the thigh legging, with a gussett at the knee to permit of flexibility, was of unusual interest. Various types and styles of knee sizes were also shown.

HAVOLINE OILS.

INDIAN REFINING COMPANY, 17 Battery Place, New York, have been refining oils for a number of years, and have for some time put out special motorcycle brands, which this season will be placed in special motorcycle size containers. These cans will be of such size that they can readily be carried by the rider if desired without being unsightly and without wearing him down should he elect to carry them from the belt. In addition to these oils, all parts of the motorcycle can be supplied with suitable lubricants of Havoline trademark. A line of further interest to garages and riders is the metal polish of this make.



Kingston Carbureter.

BAKER EXHIBIT

F. A. BAKER & CO., 10 Warren street, New York, showed a full line of motorcycle accessories, including a number of their own devices, as the "Infallible" speedometer, an exhaust horn, and a special muffler cut-out fitment. As distributors for the Indian in Greater New York, they showed one model of this machine fitted with several of their accessories, and also a Pierce motorcycle.

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J. LEO SAUER, President.
H. N. CONDICT, Secretary.

EDITORIAL VIEWPOINTS

THURSDAY
JAN. 23, 1913

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THE F. A. M. ON THE COAST.

SATISFACTION will no doubt be general over the action taken by the F. A. M. Board of Directors, in reference to the California situation, at its meeting in New York the 15th of this month. After having been in almost hourly receipt, for more than a month, of a hodge-podge of more or less contradictory letters and telegrams, the Directors came to the conclusion that any immediate solution of the problem was simply out of the question. Accordingly, the Board authorized State Commissioner E. L. Moore to visit the "scene of hostilities" to make a preliminary investigation and report pending the arrival on the Coast of the Chairman of the Legal Action Committee.

Pacific Coast members of the F. A. M. who feel any disposition to line up with the outlaw movement recently started in San Francisco, would do well to await the developments of the next two months. There is no record in the history of American sports of the success of any outlaw organization, and the so-called Western Motorcycle Federation will not prove an exception to the rule. Everything within attainment by a separate district organization, and much more, can be accomplished through the National Federation, provided only the National officials enjoy the right sort of intelligent and active local co-operation.

As a matter of fact, Pacific Coast feeling, such as it may be, against the F. A. M., is due entirely to the impression among some of the members there that they are entitled to some sort of local autonomy and a kind of guarantee that the funds contributed by members from that section of the country should be devoted to their interests. Now, the constitution and bylaws of the F. A. M., as revised at the Columbus National Assembly last July, provide for all the local jurisdiction which Pacific Coast members could possibly desire. The constitution calls for the organization of each state, the latter to have the same relation to the National organization as do the States of the Union to the Government at Washington. The constitution was revised with that very object in view, and if many of the State officials of the F. A. M. do not exercise all the jurisdiction allowed under the constitution of the Federation, they have no one to blame but themselves.

In view of the action taken by the Board of Directors, it is now practically certain that no outlaw movement can succeed on the Pacific Coast. Thoughtful Pacific Coast members of the F. A. M. will stick by the organization, realizing that if they go about it the right way they can have all the local autonomy they want, and with it the strength, influence and the benefit of the experience of the National organization. In any event, nothing of very great importance is likely to take place until the members on the Pacific Coast have had an opportunity to discuss the entire situation with the Chairman of the National Legal Action Committee who, representing the Board of Directors and the entire organization, plans to spend a fortnight in California, Oregon and Washington betwen the 15th of March and 1st of April.

A GASOLINE SCARE.

WITH the exception of a few occasions, due to financial operations, gasoline has averaged about 25 cents per gallon in Great Britain since the commencement of the motor era, the price having been a few cents higher in remote regions, owing to freight charges. Within the last year or two the syndicates controlling supplies have got into such harmony with each other that the price has already soared up to 40 cents per gallon, and there is every likelihood of its rising still higher. The average Britisher pays a high price for commodities with tolerable grace, so long as he is sure it is what he calls a fair price. He has no objection to paying a price that allows good wages to be paid in an industry, and that permits reasonable dividends. But he gets very restive when he fancies that a trust is exploiting him in the interests of a few rich shareholders; and rightly or wrongly, he has got hold of this notion in respect of the gasoline prices.

As a consequence he is furiously interested in alternative fuels for petrol engines, and the fact that the gasoline supplies would be totally cut off in case of war is helping the "new fuel movement." The top notion at the moment is the distillation of benzole from small coal. It is questionable whether chemical experience can suggest a remunerative method at present, but the Welsh collieries have "gobbed" or scrapped millions of tons of coal dust in the last few years, and it is thought that there may be possibilities in the installation of by-product ovens with a view to transforming this waste coal into motor fuel.

PROPELLER DRIVE.

SOME years ago Anzani, the famous French road racing crack, covered a flying kilometre at over seventy miles an hour on an experimental motorbicycle, driven by an aeroplane propeller. The idea is cropping up again in Great Britain, and during the last three months several cyclecars and one motorbicycle driven by this method have been seen. Riders who have tried the notion assert that it is extraordinarily efficient for straightway sprints on the flat, but that the power developed at low speeds is negligible, and that consequently there is no hill-climbing efficiency.

This is obvious when we remember that every propeller is shaped to develop efficiency at a certain rate of revolution. Until this speed is reached, and after it is exceeded, the thrust is ludicrously inefficient; and the introduction of gears to maintain the propeller revolutions cancels any other advantages. In any case the dangers of such a drive render its common use impossible. A test propeller recently went clean through a factory wall, slicing a lot of tackle to bits on its way. If such a drive became popular, the alleged dangers of the road would become real indeed.

PULS "STARTS SOMETHING."

WHILE on a business trip recently George Puls, of the Harley-Davidson traveling force, landed in Fort Wayne, Ind., and discovered that this otherwise attractive city was rated as a poor motorcycle center. Puls met C. F. Schory, talked the situation over with him and finally offered to become his partner in a motorcycle establishment. Schory accepted the proposition, and as a result "Cap's Motorcycle Garage" is now doing business at 1110 Broadway, Fort Wayne. Puls was captain of Company B on the F. A. M. tour to Columbus last summer, and Schory captained Company D. They met and became fast friends on the tour, and it is for this reason that the word "Cap's" found its way into the name of the new firm; each rider having been a captain. Puls will not sever his connection with the Harley-Davidson company, and, as might be expected, the new headquarters in Fort Wayne will be the local home of the Milwaukee company's product.

A CHAIN OF STORES.

HARRY SWENSGAARD, manager of the Excelsior stores in Detroit, reports that before the spring he will have in operation a chain of stores in Michigan's leading cities. Two new branches have been opened in Detroit and one in Flint. Within the next month Swensgaard expects to invade Battle Creek, Kalamazoo, Grand Rapids, Lansing, Saginaw and Bay City.

CAPTAIN AS HOST.

CONFORMING to the usual custom of the New Jersey M. C., of Newark, the newly elected road captain, Fred Cordes, treated the boys to a dinner.

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The NOVICE RIDER at the SHOW

Impressions Received by a One-Season Enthusiast, Who Found Something to Interest Him at Every Turn at the Grand Central Palace Display of Motorcycles and Sidecars —Breezy Observations Anent Visitors and the Show Exhibits.

BEING a novice, which means that my cyclometer was not much above the 500-mile mark when I sent the mount into winter quarters, I may have a few surprising angles in my motorcycle philosophy, and trade aspects that weigh heavily with me now may be scrapped unceremoniously before I am half through another season, but it is only fair to qualify the latter admission by stating that if my address were not New York it probably would be Missouri. I like to be "shown." After two dizzy days in the motorcycle section at the Grand Central Palace I arrived at two conclusions, one full of promise, the other a trifle disquieting. First, I became convinced that even the most sanguine friends of the motorcycle are underestimating the epochal significance of the season upon which we are entering; second, that we have yet to assume the calm, deliberative, cooly-discriminating attitude of our British cousins toward the motor two-wheeler.

As far as our opportunities for 1913 are concerned, we will no doubt make the most of them; making the most of opportunities happens to be a national trait, but the practical I-want-to-know viewpoint that characterizes the motorcyclist abroad will have to come to us with time—the sooner the better.

THE SCARCITY OF QUESTIONS.

When I reached the motorcycle section and accustomed my eyes to the glittering lanes of new models I was loaded to the brim of my Stetson with mechanical questions, and had I been approached suddenly by an attendant I should no doubt have run amuck, firing queries right and left until the reserves arrived. As it was, I merely approached a machine and stared at it intently, knowingly. Several other men followed my example. One of them asked another something in an undertone. The inquiree shook his head. Any one of us would have been glad to ask fifteen questions about that machine in as many seconds, and the attendants would have been glad to answer them, but we lacked the proper viewpoint. We didn't start anything.

I toddled hopefully from exhibit to exhibit, trusting to hear some one get down to bedrock, strike at fundamentals, probe the stand attaches until they didn't have an undiscovered fact left in their systems; but I must admit that practical queries from visitors were few. What was wrong? I have a theory, subject to the conditions set forth in the opening paragraph, that we do not get close enough to our mounts, that we lack intimacy with those features in our machines which really count, and that as a result we are able to ask only superficial questions. We were fairly effervescing enthusiasm, every one of us, and in one way or another we did learn a great deal during the show, but most of us might have acquired five times as much practical, helpful information if we had made the most of our opportunities. I am not working off a mechanical grouch, for the show found me simply an ardent recruit and left me a four-ply, double-dyed, skyhooting enthusiast; I simply long for the day when every second visitor who approaches a show attendant will know almost as much about the machine as said attendant. That's all. This condition of affairs will indicate to me that we are at last getting our motorcycle interest down to the solid foundation on which we believe our sons and their sons will find it.

THE SIDECAR FEVER.

Having made only a few desultory excursions into sidecardom, I don't care to step into the limelight with a lot of extravagant predictions as to what 1913 is going to do in the way of developing interest in the third-wheel attachments, but the first spring robin will have to be right on schedule in order to beat me into the country with my prospective new car. What's more, I am of the opinion that about one-third of the other show visitors went home with the same idea. As was expected, the show just closed brought out more sidecar exhibits than ever were displayed in the past, and if there had been twice as many I know none of them would have lacked attention.

I happened to be passing the Majestic stand when a Swastica cross, small and enameled in modest gray, caught my eye. It was fastened just below the arm of one of the wicker sidecars and might have escaped detection had I been looking directly down at the outfit. I asked why it had been used.

"In the first place, we thought the outside of the car needed just that last touch," replied Attendant W. F. Hapgood, "and besides, the Swastica is generally accepted as a good luck symbol."

The answer impressed me. When a manufacturer gets to the point where he studies his finished product so minutely that he discovers the need of a single decorative touch, he's on the right track and going strongly. At least, that's my opinion as a novice.

COMFORT A PRIME FEATURE.

The Majestic model with a miniature automobile top held my eye while I was at this stand. It gave a pleasant suggestion of preparedness for anything that might happen, and the ladies backed me in my belief that it would prove comfortable. Oh, yes, the ladies were on hand wherever there was a sidecar. They punched the upholstering, tried the springs and gurgled over the roomy chairs to their hearts' content. Not being up on feminine adjectives I am going to forego a detailed report of their comments, but the vote of the gentler sex is solid for sidecars. I'll give any odds on it.

I also liked the baggage-rack idea on the Majestic outfits. If I'm going in for sidecarring I want to carry something besides a cigar-lighter and a tooth brush. I can hardly get along without a suitcase, and the Majestic rack will carry one.

I noted, too, that the Worcester folks have provided a special telescoping connecting tube to take up extra play when the sidecar outfit is hooked up to an Indian motorcycle. Very simple little arrangement, but obviously effective, as the boys who "count 'em on the road" will no doubt demonstrate before many weeks have passed.

ATTENTION TO DETAILS.

At the Simplex sidecar stand I found two feminine enthusiasts poking handkerchiefs, show programs and catalogs into a roomy pocket on the inside of the car body next the machine. That "pocket" had caught their attention and they were "trying it." It looked mighty handy and it was. You could tuck no end of little essential things away in it on a trip. The "comfy" looking red upholstering of the Simplex proved another asset. Taking a more practical tack for a moment, I noted that the case for tools and miscellaneous articles which occupies the rear rack on the Simplex also provides for batteries with which the sidecar lamp is supplied with current.

The Simplex folks are going after some parcels post business, and they're likely to get it. Their drop frame permits of using a van 3 inches deeper than would ordinarily be possible, and this, combined with the fact that they can already fit a capacious box and carry it satisfactorily, is a point worth some consideration.

Some experienced sidecarists demand four-point moorings for their outfits, not without reason, presumably; and to meet this demand the Simplex firm is supplying a neat auxiliary brace which is clamped to the sidecar frame and the front downrunner of the motorcycle, just above the motor, to give the foot of the sidecar additional rigidity.

AN ALUMINUM BODY.

At the Universal stand I found a tidy sidecar with a body of bent aluminum plate, which is bound to be heard from if its price, which is somewhat higher than the present accepted schedule, does not dampen the ardor of its admirers. I do not believe it will, for in appearance the outfit lives up to its price ($125, I believe), and there is every indication

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that it will improve with road acquaintance. It follows automobile construction to a most interesting degree, is underslung and has a spacious locker under the seat. The seat and chair upholstering, by the way, is built over spiral springs after the fashion of motor cars, and holds out a temptation to the enthusiast to cuddle down on the cushions and let some one else worry about whether the next town is four or forty miles distant. That's the way it appealed to me, but not being scheduled as a feature of the exhibit, I was led gently away.

Before submitting to eviction, however, I inspected the Universal company's van, and I suggest that it be booked as a comer. It has a big, roomy box which may be lifted off to leave a flat truck body on the sidecar when four thumb screws are loosened. Bill Chadeayne (Bill sounds more blase and experienced than William C.), remarked that arrangements are being made to fit an even larger van body, so it is a fair guess that this firm also has an eye on a slice of that much-talked of parcels post business. Well, there should be enough to go around, once Uncle Sammy discovers how the motorcycle and van system is going to keep shekels in his official pocket.

NO END OF SELLING POINTS.

It struck me as I made the rounds of the sidecar stands that with little or no effort I could dig up enough "talking points" for any one of the models to keep a prospective purchaser awake and thinking hard o' nights until he had figured just how he could spare the money—and I'm not a salesman. Far from it. I'm a prolific buyer of things I don't need, and that my patient helpmeet can't even give to the neighbors, but I have never been able to sell anything. Still I had to fight off that impulse to start an individual sales campaign for sidecars on the spot; all because it's such a simple matter for me to see five hundred dollars' worth of recreation possibilities in an attachment that represents an outlay of only $75 or $100. One hundred dollars for a summer on the open road, with a congenial tourmg partner cuddled in the big chair at your elbow, and the best things of all outdoors spread before you! Why, you'd be driving a good bargain at ten times the price.

In this frame of mind I strolled up to the Indian stand, and my first impression of the Wigwam sidecar was concerned chiefly with its symmetry. It gained in this direction, as might be expected, through being fitted by the makers of the machine, and it seemed the most natural thing in the world to find it hooked up and ready for the road. In fact, I had a momentary feeling that it would be nothing short of unkind to detach the "basket" and take the machine out solo. They shaped up like good pals, intended for each other from the moment the mechanics went at them. The color scheme was red throughout, of course, the sidecar upholstering had that welcomy look about it and the frame and body impressed me as being sturdy without having undue weight. Naturally, the new fittings make allowance for the 1913 Indian spring frame.

STRONG INDIVIDUAL FEATURES.

I am not a one-feature enthusiast at any stage of the game, but I must confess considerable interest in the Baxter spring wheel as a distinctive point in the makeup of this firm's sidecar frame, and in the new fitting designed by the Yale folks to facilitate the attaching of a sidecar to their machines. Both these details seem worthy to rank with the essentials, at least if the opinion of a novice is worth the trouble I am taking to write it. Shocks to the sidecar wheel in the Baxter outfit are taken up in a suspension spring which appears to be fully capable of doing the work without being intricate. It's simple, and I'm an all-season rooter for simplicity.

The new Yale offering is a strong mooring for the two front attaching tubes of the sidecar, nothing more, but it occasioned considerable comment. It is placed just back of the head on the machine, where it has a bearing on both frame tubes, and thus affords about the most dependable base possible for holding the braces and lending rigidity to the foot of the sidecar. It also provides four-point suspension, by the way.

"Are the Yale people going to turn out a sidecar?" We fired this offhand at Attendant F. C. Cornish.

"We're doing so many things these days that I wouldn't be surprised if we did build a car," was the reply, "but I haven't heard of it as yet."

Then the Cornish smile got in its work, and its owner had so much to say regarding the special new front fitting that we decided to accept it, regardless of whether it is intended to hook up to a sidecar or a monoplane. It appeared equal to almost anything.

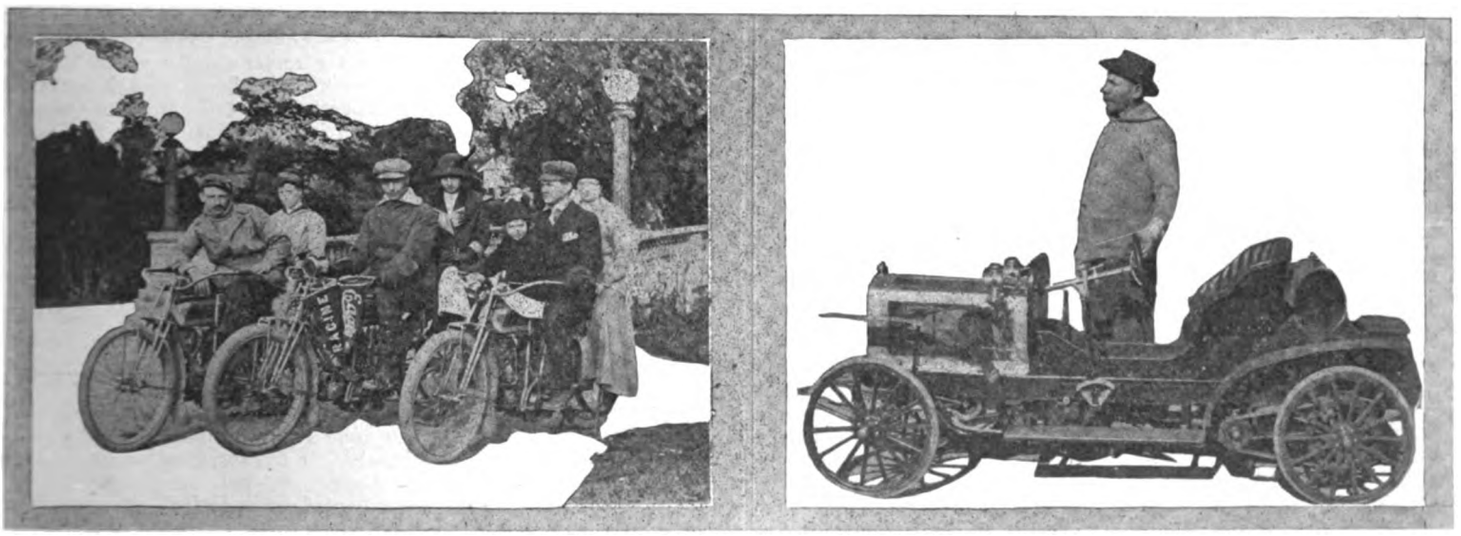
WHY SIDECARS CAME FIRST.

It may seem a bit strange that I turned my attention to sidecars immediately upon my arrival at the motorcycle section, but there was a reason, two of them in fact. One was lodged in the calf of my right leg and the other occupied similar territory in the left half of my power plant, and each took the form of a dull ache, acquired in my three-story climb up the Grand Central Palace stairways to the realm of the motor two-wheelers. Oh, yes, I walked up. I couldn't afford to take a chance on having a motorcycle or two tucked away somewhere among the automobiles where I might overlook it, so I prowled through the ground and second floors on my way to the third. Then, as intimated above, my mixture was so weak that anything with a seat in it looked good to me. After trying out the upholstering and springing in two or three sidecars, at the suggestion of the attendants, I was rested a bit and by that time the sidecar fever had me from toe-nails to forelock. That's how it happened.

I did get to the machines in due time, however, and having one or two mental pigeonholes not already jammed with sidecar data, I proceeded to assimilate information wherever any happened to be loose. At the Indian stand I gave my attention chiefly to the new spring frame, from which it may be inferred that I am a great little prober for comfort. Not that I have unearthed much of this elusive commodity in my travels so far; not that. I'm simply looking for it; in the market for it, so to speak.

"Looks like an easy rider," I remarked to a bystander with a smudge of black on his cheekbone, which indicated that he had been getting some first-hand show data.

"Sure," he replied, "I know a fellow in Newark, N. J., who rode up a curbstone with one of these frames and never knew he was off the road." (The Woolworth building gentleman who handles Indian publicity please note. I had you pointed out to me and don't



At the left is shown a party of riders of Racine, Wis., on an outing in Horlick's Park. From right to left: Mr. and Mrs. Nils Westergard, Mr. and Mrs. Okas Goldbeck and Mr. and Mrs. James Christenson. At the right: Tony Michelbach, of Old Albuquerque, N. M., and his homemade cyclecar, embodying a motorcycle engine, from which he is obtaining excellent service at a minimum outlay.

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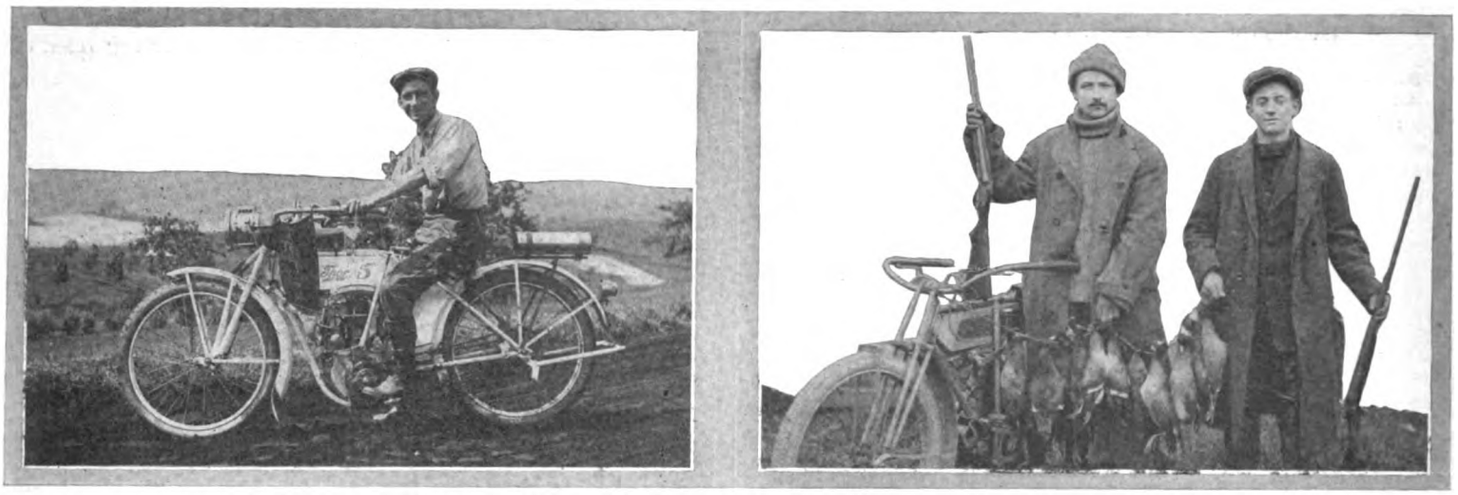

E. J. HENRIQUES, one of the most consistent riders in Sioux City, Ia., appears at the left with his white Thor. At the right are Nels Westergard (beside the machine) and a companion with a string of game brought down near Racine, Wis. The machine was used to reach the hunting ground.

mind your using my tip.) After hearing of the curbstone incident I could hardly be expected to interest myself in mere details, and when an opening presented itself in the crowd I sardined myself along to other fields.

THE LAST WORD IN CLEANLINESS.

Being a novice, I may overestimate the importance of cleanliness in a motorcycle, but I'm willing to take a chance in that direction and don't mind saying that the two-stroke, tank-in-the-frame Schickel interested me mightily. I couldn't locate any exterior part or fitting to collect dirt, and owing to the fact that everything is enclosed, the mount seemed a bit mysterious to me. I'm so used to seeing valves and their mechanism, probably, that the clean exterior of the Schickel rather bowled me over. I didn't enthuse over the protruding effect of the motor base at first, but when I learned what the inventor had managed to get into it without detracting from operating efficiency I stopped objecting and marveled a bit. Besides, I noted that the crank case on the protruding side does not extend out beyond the pedal line, and is not at all likely to be in the way. I was also given something of a jolt by the toolbox built into the tank section of the frame. It is not roomy, naturally, but that it is there at all is an evidence of ingenuity that hooked itself in my memory.

Speaking of cleanliness, I want to give the white Thor its due. It strikes me that it would be extremely difficult to produce a motorcycle more pleasing in general effect. Of course, it follows standard exterior construction and will collect some road marks, but there is always the striking white foundation to fall back upon when the dust of travel has been removed. If you don't lean toward white as a finish you may have the Thor in black or blue color schemes, but I'm for the white. Among other impressions of this machine I carried away mental notes on the unusually sturdy fork and the capacious toolbox. I favor the Schickel idea of extreme compactness with reference to the tool kit, but I am not yet past the stage where I like to carry tools for every emergency, and then some; hence my interest in the roomy Thor toolbox.

FOR THE EYE OF THE ARTIST.

Being something of a stickler for the artistic, I spent most of my time beside the "Sylvan Green" model while I was in the Reading Standard booth. The makers say the green finish has scored a hit, and it is easy to believe this. If there ever was a machine that appeared to be cut out for close communion with the open road it is that same green model of the R-S. I discovered that it has a low saddle position, footrests and other features that are included in my category of essentials, or near-essentials, but I was dazed a trifle by the amount of nickel-plating. There is a lot of work mapped out for the chap who keeps it always bright, but no doubt the results will fully justify the effort. The vets who visited the stand while I was there gave most of their attention to data on the new cone clutch with cork inserts, which features the 1913 R-S 7, and as a result I managed to tuck away some valuable clutch information.

Judging from what I heard in and about the Flying Merkel stand the new self-starting device had practically a monopoly on the interest of those who inspected the Middletown product. Nor was this surprising, for we are inherently a nation of trouble-dodgers, and an attachment designed to start our motors without fuss or flurry, or genuine physical effort on our part, is bound to find us in a friendly mood. We are demanding more of the motorcycle each season, rightly enough, and what's more to the point, we are getting it. We have all the traveling advantages now of our motor car brethren except extra room and freedom from balancing, and if we had those we would knock the sporting edge clear off the greatest pastime on the calendar. We don't want 'em. We can carry one companion, and one's enough, and when the day arrives on which we can't do our own balancing we'll be ready to totter into our carpet slippers, pull a chair up to the fire and wait for neighboring funeral directors to drop in and pay their respects. That's the way we feel about it.

EASY RIDING ASSURED.

However, I'm getting a bit afield from the Miami self-starter. Always was a great chatterer in congenial company. To get back: Foot pressure on a lever releases compact mechanism that turns the flywheels over half a dozen times, and when the motor picks up it rewinds a spring to the proper tension for another start and then automatically drops off the starter and goes about its regular business. I was surprised to find the whole operation so simple.

I had previously made the acquaintance of the Merkel spring frame, but I inspected the 1913 refinements and rather liked them. As before intimated, I can't help regarding comfort as a requisite, and while I have never straddled a spring-frame mount I know they must be easy travelers.

While I am on the subject of "easy going" I may as well skip around to the Harley-Davidson stand and record an impression or two received there. After all, I am dealing only with impressions—novice impressions, at that—for MOTORCYCLE ILLUSTRATED has highbrow gentlemen whose business it is to track the mechanical detail to its lair and drag it into the publicity limelight. I'm only a volunteer.

At the Harley-Davidson booth I poked and gum-shoed around the Ful-Floteing seat, until the attendants began to think I had a few tools up my sleeve and was about to decamp with the saddle and its fittings. Under different conditions their fears might have been justified, for I like the idea of floating, and full floating must be at least one notch better. Yes, the Ful-Floteing seat looked mighty comfortable to me, and the remainder of the machine appeared to be in tune with it.

THE DEMAND FOR GREATER POWER.

I am not a rooter for the unusually high-powered twin (I can knock enough thrills out of my modest single to meet all my requirements), but it is only just to say that I was interested in the 8 horsepower Harley-Davidson model. It is a competent-looking chugger, and in a man or a machine I like the competent looker.

I'd extend thanks, by the way, for a little inside information as to how far the boys are going in their demand for more power in motorcycles. Our machines are capable of making headway now on any road or trail that leans at all appreciably from the perpendicular, so why are we running in circles, so to speak, and whining for another horsepower or two every time a manufacturer puts out a new model? I put the question to a visitor at the Show.

"Search me," he replied, in the vernacular. "I can't tell you, unless it is that the boys like to feel they always have a few reserve kicks in their motors." There may be something in that.

At the Henderson stand I had the power

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question brought home to me again, but here it seemed quite natural to find the motor rated at 8 h. The long wheelbase and the four-cylinder type of power-plant give the suggestion of exceptional strength on the road, and the horsepower simply backs up your expectations. With my limited experience in judging tank lines, I should say that the new Henderson tank is a vast improvement over the round type of last year's model. I had plenty of backing in this opinion, too. They tell me the Detroit product is not primarily intended for speed work, but it looks speedy, and I am convinced that it must have quite a jump in it.

LIVING UP TO A REPUTATION.

Some time ago I was over in Jersey when several Newark riders checked out after a gruelling road run, and three of the first to pull into the home station mounted Yale machines. Those performances gave the Yale a place in my memory as a "stayer," and I learned later that the riders referred to were in the habit of running off with clean scores in nearly every run they entered. Naturally, I had these reports in mind as I approached the Consolidated Manufacturing Company's exhibit. I looked for sturdy machines and was not disappointed. With its cushion fork and Y-A shock-absorber, the Yale is no doubt an easy rider, but the suggestion I received was not concerned so much with details; it implied rather that the Toledo product would continue to turn its drive-wheel as long as there was anything to turn it on.

From endurance work to record-crimping speed is something of a hop, but being of an elastic temperment I managed to accommodate myself to the conditions at the Excelsior stand, where I made myself at home for a quarter of an hour after leaving the Yale stamping-ground. One glance at the Excelsior twin informs you that there is a fine bundle of quick-action possibilities wrapped up in it. You'd pick it for a speedy mount, even though you had not heard of Humiston's latest achievement with it on the Pacific coast. From my novice viewpoint the twin looks a bit complicated in exterior motor construction, but a set of world's records probably is worth the trouble incident to keeping 7-10 horsepower in working trim between your knees. There are two singles for the folks who don't care to knock the edge off old Father Time's scythe.

A TRANSCONTINENTALITE.

During my comparatively short term as a single-track enthusiast I have come to look upon the Emblem as a mount that goes ahead calmly doing worth-while things without making a fuss over them. The machine has that look about it. It seems to be pretty well satisfied with itself in a quiet way, and when you hear M. E. Gale's story of how he rode from Angola to the Pacific coast, with his plucky little life partner tucked into a cross-frame seat at his elbow, it's not hard to believe that Emblem modesty really has something to back it up. There was some tough going in that trip, take it from the Gales, but the Emblem saw them through it.

I noticed that the bend in the Emblem top tube has been moved forward about six inches, and that racier lines and a lower saddle position were thus obtained. A genial young chap at the stand loaded me to the brim with other information, hot from Angola, but being an impressionist I lost a lot of it. Besides I was due to pick up a few other impressions before dinner, and my compression was getting low.

AN ENTERTAINING QUARTET.

Just by way of breaking into the realm of vaudeville for a moment, let me say that I encountered a mighty entertaining quartet at the Pope stand. Models L, M, K and H were there, warbling as harmonious and seductive a ditty of mechanical attractions as ever was chirped across the business footlights. Ever note how the basso, the baritone, the second-tenor and the flutey first tenor line up for action when the Ladies' Guild is giving a program for the Childrens' Home back in your town? Well, that's just the way the Pope quartet was arranged along the aisle.

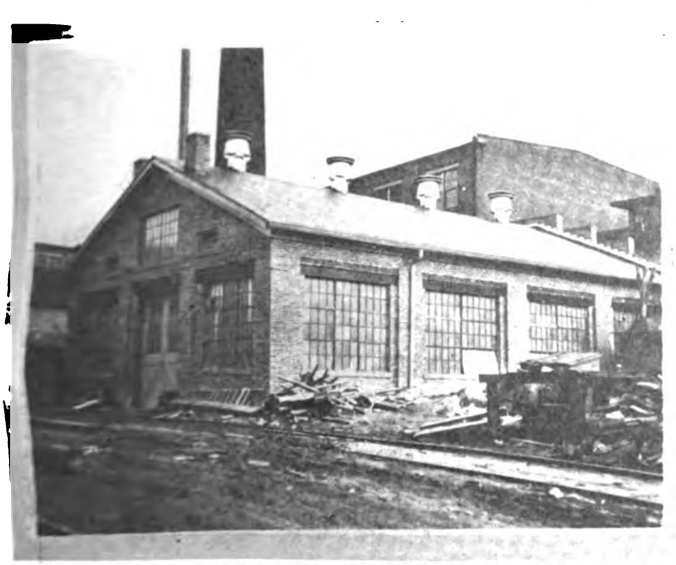
Model L has 7-8 horsepower, Model M is a 5 and K and H are 4's. I was quite deeply interested in the original Pope 4, a lightweight with which the company felt its way to motorcycle popularity. This is a neat little mount, V-belt driven, and I wouldn't ask a handier one for town work and light road service. The others are higher in price, with additional advantages. The rear spring suspension on models L and M attracted my attention, and gave me further reasons for believing that I am not the sole kicker for comfort in road work.

The M.M. was not entirely new to me, but the Eagle models displayed at the American Motor Company's stand gave me an opportunity to freshen up a bit on the latest trade offerings. I looked them over carefully and went off with the impression that they are due to figure in road reports quite generally during the coming season. The twin Eagle is another of those wallopers for the lads who want plenty of power, and then some. It rates at 9 h. and looks it. It may be had with either flat or V-belt or chain, and the same transmission options apply to the single 5's.

A VETERAN AND A NEWCOMER.

I found a four-cylinder model and a single at the Pierce stand, and inspected both with interest. The tank-in-the-frame construction has always given the Pierce an air of distinction, in my opinion, a sort of robustness of makeup that prevents the rider from having any qualms of conscience when he puts it to hard service, and they tell me the motor is a bear for work. As before stated I don't hanker for four-cylinder work, nor even twin riding, but I think I'd feel pretty much at home aboard the Pierce four. I'm not shifting allegiance from my "one lunger," as the boys call it, but when a machine creates a favorable impression with me, I'm fair enough to say so regardless of the number of its "lungs."

I knew the Dayton was a comparative newcomer, and hardly looked for the air of finish and refinement that marked the Davis company's product. The Dayton is offered only in twin power, but in two models, one rated at 7 h. and the other at 9. Both are chain-driven, and have fork and seat-post springing, but a rigid frame. With reference to these details I was most interested in finding that the single type had been passed over for twins. That was the point that started me back over the line of thought previously referred to, that moved me to consideration of the mysterious influence that is at work in behalf of high-powered mounts. Who is going to step up and say a few words for the modest but capable single? I'm with you, brother, whenever you want to speak your piece.



In keeping with its policy of steady expansion the Miami Cycle Mfg. Co. recently moved into its new punch and press department; the photo at the left shows the building ready for occupancy. At the right: Officer Edwin Bradley, of Fresno, Cal., one of the stoutest policemen in the country to ride a motorcycle.

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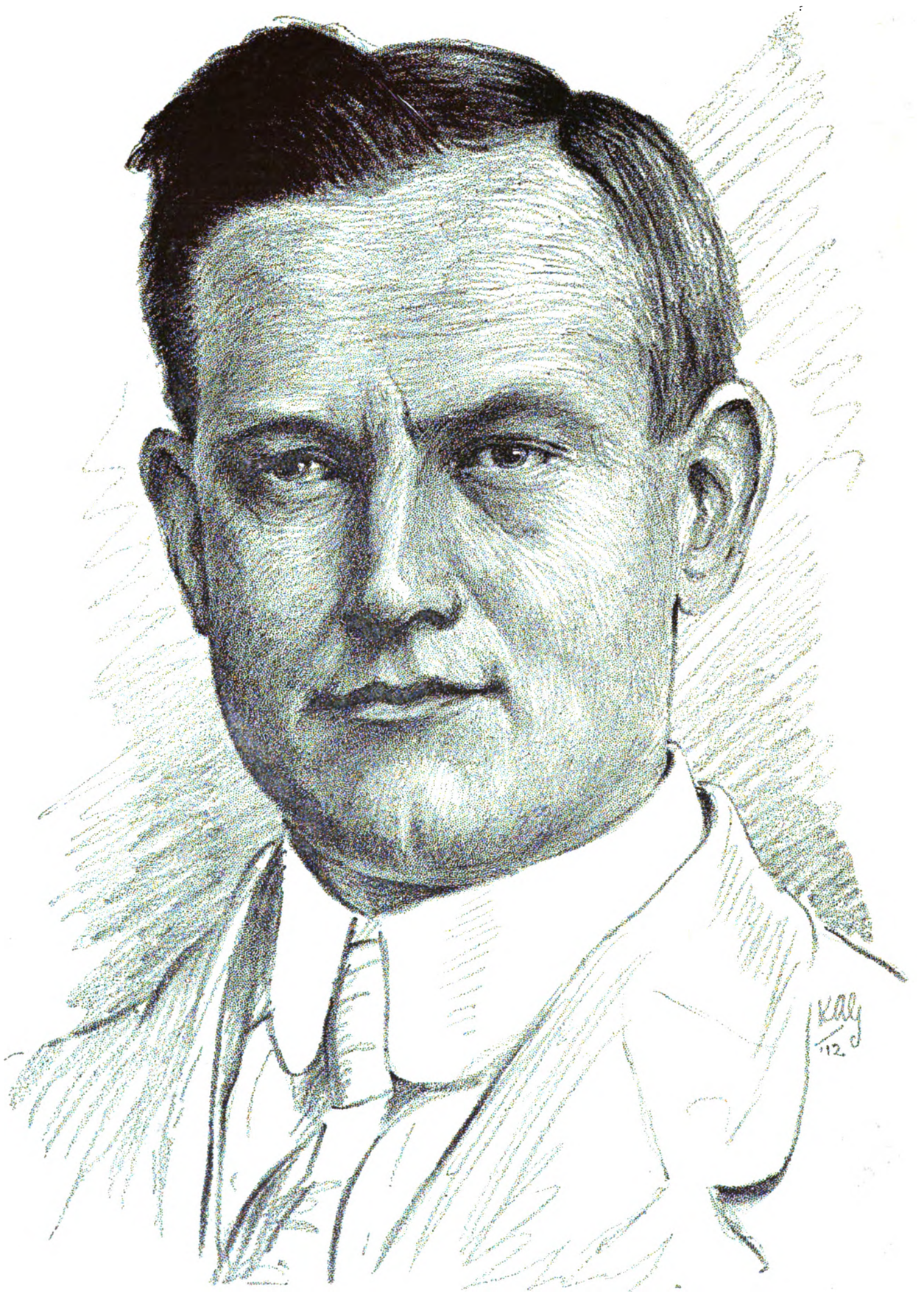

OSCAR HEDSTROM

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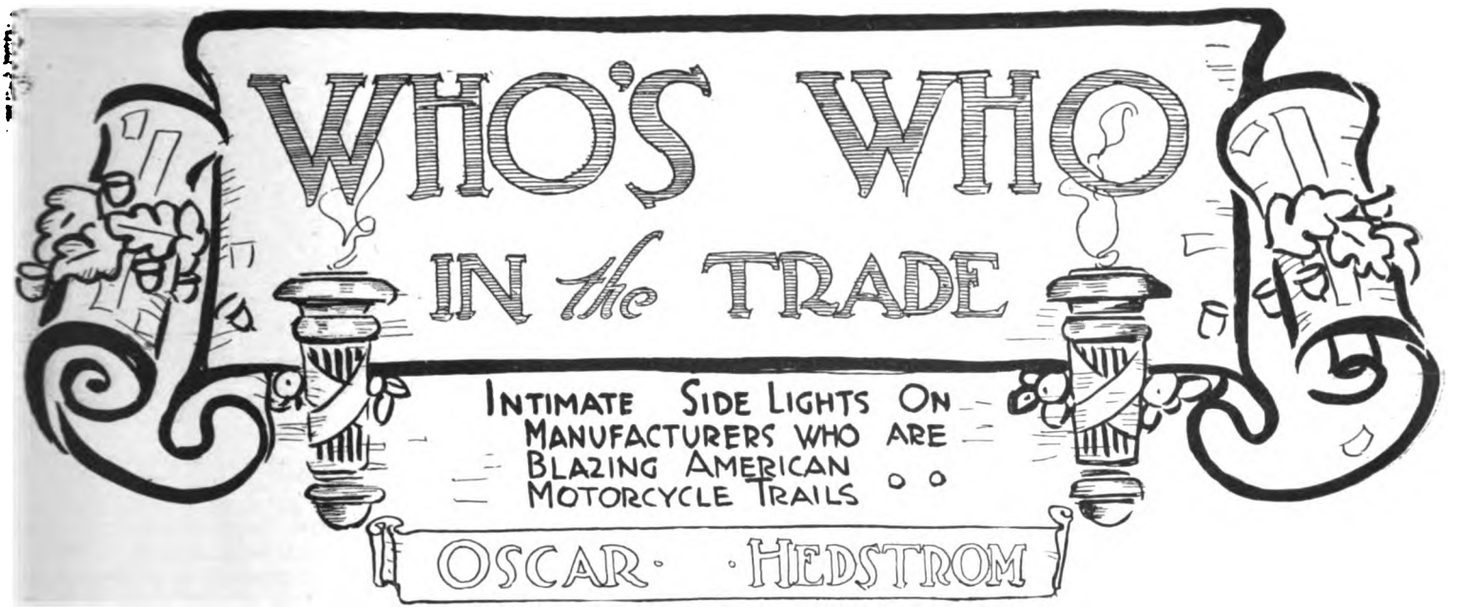

A MAN in the street once remarked: "When I think, or hear, or see motorcycles I always think of the Indian." This psychology might be applied further in the sense that to think of the Indian is to think of Oscar Hedstrom, its creator, for the two are inseparably linked. In the vocabulary of the day, Hedstrom was the man who put the "mote" in motorcycles, 'way back in 1901, and the Indian has been "moting" pretty steadily ever since.

Sweden has a reputation for turning out some pretty good inventors, and the standard was not lowered any by the production of Oscar Hedstrom. Rather it was enhanced measureably. America, the land of opportunity, looked pretty good to Hedstrom's parents about the time he was nine years old, and they "obeyed that impulse." Brooklyn schoolmarms were entrusted with grounding the lad from the Land of the Midnight Sun, in the three "R's." Their lot was an unenviable one, for, although an apt pupil, young Hedstrom much preferred the teachings of Peck's "Bad Boy."

BEGINNING A SHOP CAREER.

When the grammar institution finished with Hedstrom, his shop career commenced. He entered a watch case factory, and when he came out he was a crackajack toolmaker. Before graduating from the shop classroom, he took up bicycle racing, which was the proper thing in those days, 1894.

At first he raced outside of shop hours, and gradually made the sport his profession. Hedstrom was more than an ordinary rider, for he won the one-half-mile indoor championship at Madison Square Garden in 1899, with Eddie Bald, Arthur Gardiner, Nat Butler, Harry Caldwell and other stars in the final. Before he had been racing long, Hedstrom was conceited enough to think that he could build better racing wheels than a lot of other people were building.

He went ahead and built a few, and the men who rode them won so easily with them that the builder became well known almost overnight. Big manufacturers who were in racing strong, and had strings of stars, immediately saw in Hedstrom's ability a chance to "put something over," so they told him to go ahead and build the best wheels he could, and famous nameplates were put on them.

In the late '90's Kenneth Skinner, of Boston, brought the first DeDion motors to this country, and Hedstrom thought he would like to see what kind of a motor tandem he could build, particularly as he wasn't highly impressed with some of the French types. This kind he built "cleaned up" the others pretty regularly, and won the 10-mile tandem championship at the Pan-American Exposition, Buffalo, in 1901. It was the smallest motor in the race, but it could "go some," as witness a record mile in 1:18, and the ten in 13:22, breaking the old mark of 14:50. The team of Henshaw and Hedstrom was famous throughout the country. Henshaw did the steering and Hedstrom was the engineer.

A MOTOR WIZARD.

Hedstrom knew more about motors in those days than any of the other racing men, and when they wanted their machines "dinged" they asked him to do it. He would thoroughly overhaul an engine for the modest sum of $10 and feel that he was "squeezing" the owner.

Middletown, Conn., 40 miles below Springfield, on the Connecticut River, was the birthplace of the Indian motorcycle in the spring of 1901. Here, in the plant of the Worcester Cycle Manufacturing Company, where earlier he had built racing bicycles and motor tandems, Hedstrom secluded himself from the world, put on his apron and went to work, and in four months the Indian was born. He made all his drawings, and some of the patterns for that first machine.

Now Hedstrom had the utmost confidence that his machine would run, and he insisted on having every part nickeled or enameled and completely finished before he took it out for trial. There were some who had serious doubts that the machine would run, and they couldn't understand why Hedstrom insisted on wasting time, as they thought, finishing a machine which had never been tried.

THE TRIAL DEMONSTRATION.

Hedstrom wasn't saying anything, but the first time he took the machine out, he gave a demonstration that made the skeptics feel like a flat tire. Although the engine was only 1¾ horsepower, Hedstrom picked out a 9 per cent. hill and towed a 180-pound rider on a bicycle up it, to the utter astonishment of his audience, including George M. Hendee. This was President Hendee's first demonstration of the capabilities of the machine, on the manufacture of which he staked his fortunes.

Then Hedstrom came back to motor racing, not with a tandem, but with the Indian, to which he now gave himself over entirely. Early in the twentieth century there was a bicycle track circuit in New England, and Hedstrom used to go to these meets and give exhibitions with his machine, paying his own expenses. This was along in 1902 and 1903. At one of these meets, in Hartford, he went up against Carl Ruden on a 3½ h. French Aster pacing machine, and trimmed him good with a 1¾ Indian.

At the first big automobile race meet on the beach at Daytona, Fla., in 1903, Hedstrom was on hand and made some of the big cars look like canal boats for speed. For the next few years he was on hand at all the big motorcycle events. In 1907 he stopped racing and settled down to develop the Indian.

A MAKER OF CHAMPIONS.

Not only has Hedstrom made a winning machine, but he has "made" men who could win. The champion motorcyclists we have had were "made" by Hedstrom. Kellogg, Goerke, Huyck, DeRosier, Hasha, Seymour, Constant, never amounted to a row of pins until Hedstrom put them on Indians and showed them how to ride to win. True, some of them could ride well when they came to him, but he "made" them. He gave them a machine they could win with, and he showed them how to win even against their own comrades.

Of late years Hedstrom has played a new role. After starring as an inventor, designer and rider, he went into the architectural field and planned all the new buildings of the Indian plant, since it first was moved to the present site. He also keeps tabs on the experimental work, and is a sort of advisory board all in himself. When something in the shop gets snarled up they come to him.

Hedstrom doesn't live in Springfield any more; that is, legally. He has a beautiful country place at Portland, 40 miles down the river, and travels back and forth in his car. His present hobby is motor boating, and he has won the motor boat championship of the Connecticut two years in succession, with Indian I. and Indian II. His clubs are the Royal Automobile Club of Great Britain, Springfield Yacht and Nyasset.

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MORE SPACE CHICAGO'S CRY

CHICAGO, Jan. 15.—Once more the Show Committee of the Motorcycle Manufacturers' Association has found it necessary to arrange for additional space in order to accommodate those who will exhibit at the independent Motorcycle and Bicycle Show which will be held February 3-8. When the committee closed its first contract for 13,000 square feet of space it was taken for granted that this would be sufficient to meet all the demands of patrons, but the officials have since been obliged to make several extensions. Applications piled up so rapidly that at the M. M. A. meeting in Chicago on October 9 an option was obtained on 4,800 additional square feet. This was subsequently leased by the committee and quickly disposed of.

A few days later it became apparent that this increase in the space would not permit of accommodating all the prospective exhibitors, and without delay steps were taken to obtain another option on an extension of the Show area. At this point difficulty was encountered, as the Furniture Exhibition Building, in which the Show is to be held, is leased to furniture manufacturers by the year, and it was necessary to obtain the consent of these lessees before the Show committee could arrange for another foot of space. Finally the committee received permission to store some of the furniture elsewhere to make room for the motorcycle and bicycle manufacturers and the makers of accessories.

The last addition to the space comprises only about 800 square feet, and it is the only extra room to be obtained in the building under any conditions. It is desirably situated, however, being on the entrance aisle where the articles displayed will be bound to receive attention, in spite of the fact that they will not be in the section comprising the other exhibits. The new section is close to the elevator.

The Show will be held on the second floor of the building, which is located at 1319 Michigan avenue. Visitors will walk up one flight of stairs and will pass the newly acquired space on their way to the main floor on which the Show is held. The extra section has been allotted to the following firms: Fentress-Newton Mfg. Co., of Detroit, Mich.; J. W. Bottomley, of Chicago; Hughes & Wessling, of Chicago; Queen City Iron & Wire Works, of Denver, Col.; Morrison-Ricker Co., of Grinnell, Ia.; Feilbach Motor Co., of Milwaukee, Wis.; Jenkins & Co., of Des Moines, Ia.; Hine-Watt Mfg. Co., of Chicago.

Committeemen A. B. Coffman, Arthur Davidson and F. J. Weschler, who are in charge of the Show arrangements, and Manager J. S. Vogel are growing more enthusiastic daily over the outlook for the display. They assert that it will be the biggest and most important showing of motorcycles, bicycles and their accessories ever seen in this country, and all indications seem to back up their prediction. Dealers who have never before attended a show announce that they will be on hand at the coming exhibition, and letters received from all sides evince interest far in excess of anything heretofore manifested. Some of the enthusiastic trade men are preparing to travel from such distant points that they have written the committee to inquire whether special railroad rates will be obtainable during Show Week.

A week ago Committeemen Coffman and Davidson visited Chicago and went over the situation in detail with Manager Vogel. They expressed themselves as perfectly satisfied with the progress that was being made and the manner in which plans are being developed for accommodating the crowds that will throng the exhibition building. It is stated unofficially that Manager Vogel will at the close of the Show accept the position of sales and advertising manager for a motorcycle manufacturing firm that has just entered the field, his ability to obtain results having created a favorable impression.

BRIDGEPORT SHOW.

A COMBINATION automobile, motorcycle and motor boat show will be held in Bridgeport, Conn., March 3-8, under the auspices of the Bridgeport Auto and Motor Boat Show Committee. This will be one of the largest shows of its kind in the State, and will have about 130,000 square feet of floor space.

AN IOWA CARRIER.

HARRY HULIN, rural mail carrier No. 2, who travels out of Gilman, Ia., is shown on his new Harley-Davidson. This picture was taken when Hulin had an unusually light load; as a rule his mount is loaded nearly to the limit of its capacity, but he succeeds in making good time on his route.

GALE'S TRIP TO THE SHOW

Emblem Tourist Found Hardest Kind of Going on Run from Angola to New York City Through Snow-drifts.

M. E. GALE, the Emblem transcontinentalite, was one of the most interesting figures at the New York Show, from the viewpoint of visiting riders. Gale made the trip from Angola to the metropolis on his Emblem, leaving on Sunday morning, January 12, and reaching New York in time to report at the Grand Central Palace on Wednesday evening. Although the trip was a comparatively short one for a motorcyclist of Gale's experience, the veteran tourist states that it was one of the most severe runs he has undertaken.

On his first day out of Angola (Sunday) he rode through a drizzling rain which froze almost as fast as it fell, and after sliding, skidding and falling on the glazed roads he managed to reach Le Roy, Sunday night. At 8 o'clock Monday morning he again headed for New York, encountering bitterly cold weather. Snow drifts that reached halfway up on his front fork were met with, and finally to avoid bucking the drifts Gale made a detour and plugged over railroad ties for five miles. The second night was spent at Syracuse. On Tuesday a start was made at 9 a. m., and Schenectady was reached at 4.30. Aside from a blowout no trouble was experienced, until bad roads were struck east of Albany. The trip over this 8-mile rough stretch resulted in another blowout, and it was necessary to put on a new casing at Hudson.

A short time later heavy mud was encountered, but with the aid of his Weed Anti-Skid chains, Gale managed to keep his mount upright. About nightfall he reached the outskirts of New York City, and the rest was comparatively easy.

CONTEST IN ILLINOIS.

MOTORCYCLISTS of the State of Illinois have united in a fight against the appointment of J. F. Donovan as state highway commissioner. It is argued that his appointment would mean poor highways for the state as he has frankly stated that in his opinion there is no necessity for hard roads. An opposing legislative committee has been appointed to battle against the hard road question and to obtain the appointment of Donovan.

OREGON'S SHOWING.

OUT of the 1,183 licensed motorcycles in the State of Oregon, Marion county claims 751. Salem, the capital of this county, is credited with 486 of that number.

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COUNTRY WIDE MAD SERVICE

IN a full-day session, held in New York City, January 15, the F. A. M. Board of Directors disposed of a surprising amount of business and cleared from the official calendar a number of matters of prime interest that have come to the fore since the recent meeting in St. Louis. Among the most important developments of the session was a decision by the directorate that funds should be set aside for the purchase of a series of maps of national scope to be used by the Federation's Touring Bureau. Robert Bruce, of the A. A. A., and S. Schreyer, of the Indian Refining Company, were given hearings in this connection. Each was prepared to supply maps suitable to the Bureau's requirements, and after a discussion of the aims of the F. A. M. concerning its Touring Bureau and of the expenditure that might be considered justifiable at this time, the map experts were requested to submit their propositions in writing to the board.

Mr. Bruce's suggestion involved the use of sectional and state maps that have been prepared by the touring department of the three-A organization, and which the latter is willing to place at the disposal of the Federation Touring Bureau on a contract basis. Mr. Schreyer, on the other hand, offered to sell the plates from which maps in a series of recently published route books have been printed. These maps cover the country fairly well and could be incorporated in sectional books or distributed on single sheets as might be found most advantageous by the Bureau. The propositions to be submitted in detail by the map experts will probably be acted upon the directors within a week or two, so that there will be no unnecessary delay.

The meeting opened at 10:00 a. m., with the following directors present: Messrs. Willis, Hamilton, Estabrook, French, Thornley and Sauer. Secretary-Treasurer Gibson was also present in his capacity as secretary of the board. There were absent, President Patterson, whose vote on certain questions was stated in a personal letter to Director Hamilton; Director Johnson, whose proxy was held by Director Willis; and Director Collins, whose proxy was held by Director Hamilton. Director Willis was elected Chairman Protem. The entire Board of Directors therefore was represented either in person, by proxy, or by written vote.

The minutes of the Board of Directors in relation to its meetings held since the 1912 National Assembly, at Detroit, Mich., and St. Louis, Mo., were read and approved.

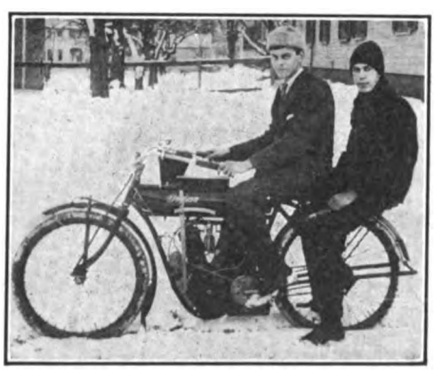
J. Leo Sauer, chairman of the F. A. M. Uniform Committee made a report which was adopted, and he was instructed to carry to completion the plans relative to the uniforms. Two sample uniforms were shown.

Treasurer Gibson read a financial statement for the first six months of the present fiscal year, up to December 31, which was accepted. This report showed a balance at his office on January, last, of $5,248.04. Treasurer Gibson was requested to get up a new itemized financial statement regarding a different division of the F. A. M. expenses.

Chairman Esterbrook, of the Membership Committee made a general statement regarding his work, and also outlined his plans for the coming year.

J. Leo Sauer of the Legal Action Committee, read W. H. Wells' report regarding his representation of the F. A. M. at the formation of the International motorcycle association, at its meetings in London and Paris. It was voted that Mr. Wells' action in this matter be referred to the Legal Action Committee, which, if it sees fit was instructed to ratify the agreement.

Secretary Gibson was instructed to write the Secretary of the Canadian Motorcyclist's Association to the effect that the F. A. M. will be glad to issue to trade C. M. A. members, F. A. M. registered repair shop certificates and signs, provided that such Canadian trade members shall first have been issued a registered repair shop certificate from the C. M. A. A letter was read from the President of the Canadian Motorcyclist's Association stating that their Association had adopted the F. A. M. competition rules, practically entirely.



A SNOW-PLUGGER.

ALLAN H. SAWYER, of Millers Falls, Mass., forwards the accompanying photograph of himself mounted on his twin Indian, with a friend astride the tandem. The picture was taken after a spin over the snow-covered roads of Massachusetts on Christmas day. Sawyer states that he enjoys his machine as much during the winter season as in the summer months, and the photo appears to back up this claim.

Chairman Thornley, of the Competition Committee, made a financial report for the six months ending December 31, 1912, showing receipts for sanctions of $6,744.50, out of which there was paid to referees $2,912.50.

It was voted, on motion of Director Thornley, that all monies coming into the hands of the competition committee chairman, be immediately forwarded to Treasurer Gibson with the formers voucher and that the chairman of the competition committee make drafts on the treasurer for all expenditures, as provided for by the Board of Directors. This order was voted to become effective on February 1 next.

It was voted that Treasurer Gibson be instructed to bring to the attention of the entire board, any F. A. M. bill of $100 or over, if he has not absolute knowledge that the bill is correct.

On motion of Director Thornley it was voted, that inasmuch as all monies in the hands of the competition committee chairman are to be turned over to the National Treasurer on February 1, that his books be audited. This was left in charge of the chairman of the Legal Action Committee.

It was decided that the chairman of the competition committee should get in touch with the chairman of the competition committee of the Auto-Cycle Union, of Great Britain, regarding the classification and publishing of world's records.

A suggestion that $100 be taken out of the Professional Riders' Relief Fund and given to Jake G. DeRosier, who is slowly recovering from his accident in Los Angeles.

A number of recommendations made by President Patterson in a recent letter were taken up separately by the board and acted upon with little delay. In connection with the first recommendation it was voted that the chairman of the competition committee submit an itemized account of the receipts and expenditures of his office to the directors on the fifth of each month, covering the transactions of the month preceding, and that the national treasurer follow the same rule. It was also voted that no F. A. M. shall accept notes in lieu of cash in any financial transaction of the Federation. A suggestion with reference to a conference between the officers of the F. A. M. and the A. A. A. was laid on the table for future consideration. With a view to furthering organization work and assisting in the general movement for rapid upbuilding of the F. A. M. during 1913 it was decided that each director should write to state commissioners located near him and thus stimulate the state heads to greater endeavor.

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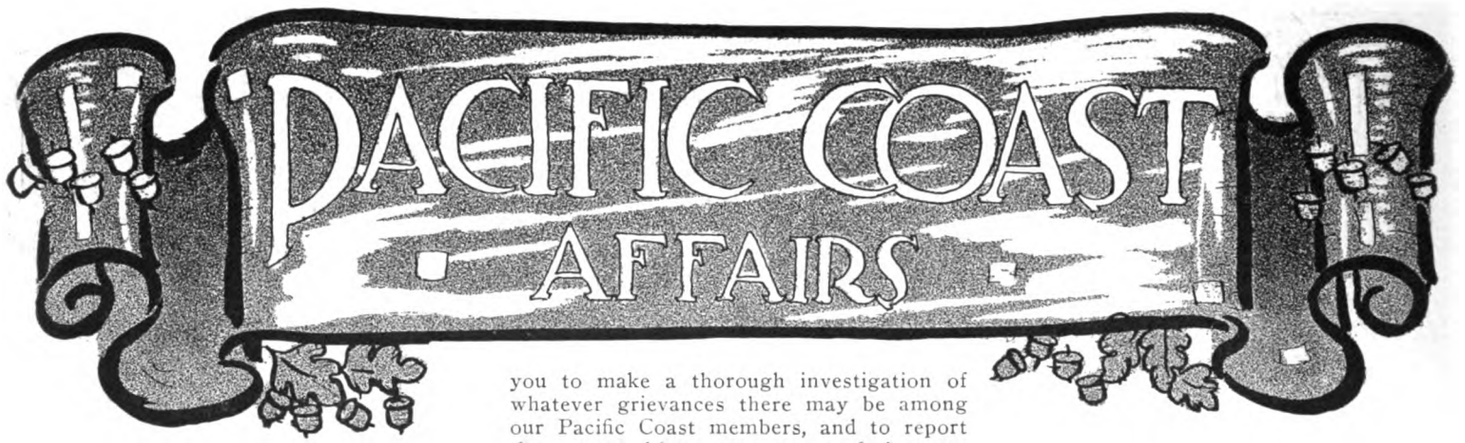

CLOTHED with the full authority of the Federation, State Commissioner E. L. Moore, of Seattle, Wash., is now on his way to California to confer with Dr. R. Y. Leslie, California State Commissioner, regarding the F. A. M. situation on the Coast and also to make a thorough investigation of conditions in the Pacific coast states of California, Washington and Oregon. Mr. Moore will act under an appointment by the Board of Directors at a special meeting in New York on Wednesday, January 15, at which time conditions in California and elsewhere on the Pacific Coast were fully discussed by the directors, with the result that they unanimously adopted a resolution appointing Mr. Moore to temporarily take full charge of F. A. M. affairs in the three above-mentioned states, pending the adjustment of any grievances which members on the Pacific Coast may have. Mr. Moore was also instructed to make a thorough investigation of all alleged grievances, to confer with Dr. R. Y. Leslie, California State Commissioner, particularly in reference to the appointment of a state referee and, after giving these matters his attention, to make his recommendations to the Board as soon as possible. Mr. Moore will act under the instructions of the chairman of the Legal Action Committee, who will reach the coast some time in March, while making a lecture tour of the United States under the auspices of the F. A. M.

Immediately after the passage of this resolution Chairman Sauer wired Mr. Moore advising him of his appointment and of the Board's instructions. Mr. Moore wired back that he was ready to make the trip at once. At the time of the transmission of the telegram to Mr. Moore announcing his appointment, the chairman of the Legal Action Committee also wrote the following letter, in behalf of the Board of Directors, authorizing Mr. Moore to take prompt action:

New York, Jan. 16, 1913.

"Mr. E. L. Moore, Arcade Annex Building, Seattle, Wash.

"My Dear Sir—

"At yesterday's special meeting of the Board of Directors of the Federation of American Motorcyclists, eight of the nine members of the board being present in person or represented by proxy, a resolution was unanimously adopted appointing you to act at once and until further notice, with full authority, in the Pacific Coast States of Washington, Oregon and California. Through me, the board wishes to instruct you to make a thorough investigation of whatever grievances there may be among our Pacific Coast members, and to report the same, with your recommendations, to the Board as soon as possible.

"To this end, you are authorized and urged to make a tour of the important motorcycle centers on the coast, the F. A. M. to pay your transportation expenses and hotel bills. At the same time, you will continue to issue sanctions for race-meets in the States of Washington and Oregon, and also confer with Dr. R. Y. Leslie, State Commissioner for California, on all matters concerning the F. A. M. in that State, and also agree with him upon the appointment of a State referee for California.

"It is the sentiment of the Board that those of our members on the Coast who may be dissatisfied for any reason should be given a prompt hearing and their alleged grievances brought before the Board for its consideration. The Board wishes it understood that it is anxious to ascertain the present and possible future wants of Pacific Coast members, and it is the hope of our directorate that you can spare the time to investigate at once all Pacific Coast F. A. M. matters. The Board has also instructed the undersigned to make a tour of the country as soon as the necessary arrangements can be perfected, but as this will require a few weeks' time and as the Pacific Coast situation demands immediate attention, it is our wish that the preliminary work be done in advance of my arrival on the Coast.

"Please let me have your acknowledgment as soon as possible. Any requests, by mail or wire, for further instructions, will have my prompt attention. Keep me fully posted from day to day, and I shall do likewise.

"Fraternally yours,

"J. Leo Sauer,

"Chairman Legal Action Committee."

Upon receipt of Mr. Moore's acceptance of the appointment, Secretary-Treasurer Gibson was instructed to forward to Moore a check for his transportation and hotel expenses, as authorized by the Board of Directors. This check was immediately sent forward from the office of the Secretary-Treasurer, with the following letter:

"Westboro, Mass., Jan. 17, 1913.

"Mr. E. L. Moore, Seattle, Wash:—

"Dear Sir—The F. A. M. Board of Directors held a business session in New York on Wednesday, Jan. 15 last.

"As you have probably been informed by J. Leo Sauer, Chairman of our Legal Action Committee, the Board voted to send you South into California to ascertain conditions there and report to the Board.

"A sum of money was voted to be used by you for expenses on this trip; and I have to-day received a wire from Director Sauer regarding the matter.

"At his request I am sending you my F. A. M. certified check for $200, to be devoted as you may need on this prospective trip.

"Please make return to me regarding the sum spent of this $200, so that I may have a proper voucher in our voucher files on the matter.

"I wish you good luck on this trip, and may success attend your efforts.

"I am sending a copy of this letter to Director Sauer.

"Fraternally yours,

"G. B. Gibson,

"Sect.-Treas. F. A. M."

The Board of Directors now has before it Dr. Patterson's charges against Charles Fuller Gates, and also Mr. Gates' defense. Pending the latter's suspension, no action is likely to be taken by the Board on these charges until Mr. Moore has rendered a full report. The organization of an outlaw association, with headquarters at San Francisco, is not taken seriously by the directorate, particularly in view of the fact that the president of the new association is not a member of the F. A. M. It will be Mr. Moore's duty to deal entirely with F. A. M. officials and members, to ascertain their wants, and to report the same back to the Board. At a later date Mr. Sauer will reach the Coast and continue the investigation. Every director is disposed to meet the Pacific Coast members more than half way, and it is the confident belief of the directorate that, as a result of its action of last Wednesday, absolute harmony between F. A. M. members in all parts of the country is now assured, and is only a matter of time.

N. C. M. C. LEADERS

AT the last weekly meeting of the National Capitol M. C., of Washington, D. C., held Wednesday evening, December 15, a new set of officers were elected. The new staff is reported as follows: President, E. M. Dodson; vice-president, Paul A. Draper; corresponding secretary, Thomas O. Wansleben; recording secretary, Fred M. Mills; treasurer, Harry B. Cohen; captain, W. F. Troop; first lieutenant, Frank Hazelton; sergeant, W. F. Troop. P. H. Moulden, George W. Parezo, H. H. Dodson, Paul A. Draper, T. O. Wansleben, F. M. Mills, W. F. Troop and Harry B. Cohen were appointed members of the board of directors. Harry B. Cohen was reappointed publicity secretary.

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F. A. M. NATIONAL LECTURE TOUR.

AT a special meeting of the F. A. M. Board of Directors, held in New York on Wednesday, January 15, Chairman J. Leo Sauer, of the National Committee on Legal Action, was authorized to make a lecture tour of the leading motorcycle centers in the United States, and requested to start his trip as soon as arrangements could be completed. With the co-operation of Federation officials, the F. A. M. Publicity Bureau and the dealers and clubs in the cities on his schedule, the Legal Action Chairman proposes to conduct a transcontinental motorcycle educational and F. A. M. membership campaign, beginning about the first of March and concluding about the first of May.

It is Mr. Sauer's plan to arrange for nightly meetings in about forty centers of population in something like 32 or 35 states, from Massachusetts to Texas and from the Atlantic to the Pacific Coast. The subject of the lecturer's address will be "The Motorcycle and the F. A. M." In addition to delivering this address, Mr. Sauer will endeavor to get in touch with the leading newspapers along the route with a view to convincing their writers that the prejudice which exists against the motorcycle in some sections is entirely unfounded. He will also explain the workings of the National organization, offer suggestions as to how the States should be organized, give hearings on all matters in dispute, ascertain from riders in different localities in what way the F. A. M. can be of greater service to them, and also point out how they can co-operate with the organization so as to make it more valuable to every one of its members. In connection with his tour, Chairman Sauer will conduct a National membership campaign, the details of which are yet to be worked out. It has been decided, however, that a silver loving cup will be awarded to the city delivering to Mr. Sauer, upon his arrival, the largest number of memberships.

In order to make the trip a success, the heartiest kind of local co-operation will be required, and club officials, dealers and others are requested to begin at once to make arrangements to insure a large attendance at the various meetings. In all probability, the Legal Action Chairman will leave New York about the first of March and go South, taking in Philadelphia, Baltimore, Washington, possibly Richmond, Atlanta, Savannah, Memphis, Dallas, San Antonio and El Paso. From El Paso he will cross to Los Angeles, reaching that city about March 15. The two weeks between the 15th of March and the first of April will be spent in Los Angeles, San Francisco, Portland, Tacoma and Seattle. Next in order, between the first of April and the middle of that month, will come Salt Lake City, Denver, Kansas City, St. Louis, Omaha, Des Moines, St. Paul, Minneapolis and Chicago. Between the fifteenth of April and the first of May Mr. Sauer plans to visit Milwaukee, Detroit, Toledo, Cleveland, Indianapolis, Louisville, Cincinnati, Columbus, Pittsburgh, Buffalo, Syracuse, Boston, Hartford and Newark.

The above itinerary is only tentative, and suggestions for its improvement will be gratefully received. Mr. Sauer's address is 51 Chambers street, New York City, and he desires all interested parties to get into immediate touch with him, so that he may be ready to start according to schedule.

PROPOSE NEW MOTOR LAW

IN connection with the proposal to pass a motor vehicle law in California, the following is self-explanatory:

New York, Jan. 20, 1913.

"Miss S. C. Geary, Secretary, Automobile Club of Southern California, Los Angeles, Cal.

"Dear Madam:—

"We have been informed that your association will recommend the passage by the California State Legislature, of a bill regulating the ownership and operation of automobiles and motorcycles. In view of the fact that there are only local ordinances affecting motorcycles in California at the present time, our organization is naturally interested in the move your association is making. Under the circumstances, we would appreciate being kept posted. At the same time, we wish to assure you of our willingness to co-operate in any reasonable way and, if it is necessary, to contribute our financial support to a moderate extent.

"There are so many riders of motorcycles in California, that no law should be adopted without reference to their interests. The Federation of American Motorcyclists would like to have the opportunity of working in harmony with your association in this matter, and as Chairman of its National Committee on Legal Action, I would appreciate your co-operation to that end.

"Thanking you in anticipation of an early reply, I am,

"Yours very truly,

"J. Leo Sauer,

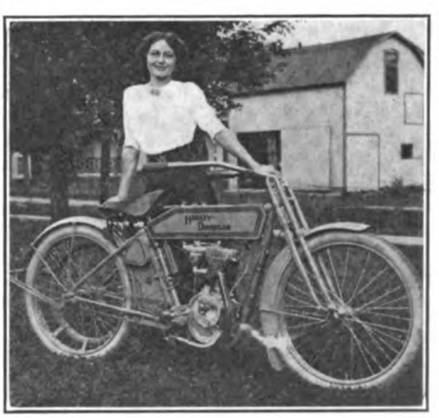
"Chairman F. A. M. Legal Action Committee."

NEW RICHMOND M. C. STAFF.

MEMBERS of the Richmond (Ind.) M. C. held their annual election in connection with the January business meeting. The new staff follows: President, Roy Harvey; vice-president, Walter E. Moore; secretary, Alvin Alexander; treasurer, Elmer Smith; road captain, Paul McBride; first lieutenant, Charles Meyers, and second lieutenant, Earl Wright. Emil Weist and Frank Cook were named directors at large.

A BUSY SALESMAN.

WILMER REICHERT, formerly connected with the Chicago branch of the Hendee Manufacturing Company, appears in the accompanying photograph. Since leaving Chicago Mr. Reichert has traveled through Georgia in the interests of the Hendee company, and is now making an extensive trip through Florida.



A FEMININE BOOSTER

MRS. W. T. RAYPOLE, wife of the Harley-Davidson dealer at Churubusco, Ind., is shown in the accompanying photograph. Mrs. Raypole is a loyal booster of the two-wheeler and enthusiastically asserts that she will have at least a half dozen feminine riders in Churubusco before the close of the 1913 riding season.

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THORNLEY WILL ACCEPT RECORDS

THAT Lee Humiston, who claims to have battered down all motorcycle records from one to one hundred miles in his trials on the Playa del Rey saucer, near Los Angeles, is practically assured of full official credit for his remarkable performances is evident from Chairman Thornley's decision in a letter printed below, and as a result there is widespread satisfaction among motorcyclists. No question has been raised concerning Humiston's fairness or the sincerity of the Excelsior Motor Mfg. and Supply Co., which produced the record-breaking machine, and as might be expected there was strong feeling against the new speed marks being ruled out on the ground of irregularity in the sanction. It has been shown that Humiston believed the sanction to be in keeping with all F. A. M. requirements, and, as pointed out in Chairman Thornley's letter, he will not be held responsible for anything except his actions on the track and the measurements of his machine. Reports thus far received from the coast indicate that in these respects the trials were entirely satisfactory.

In discussing the matter before the F. A. M. directorate at the meeting held in New York City during Show Week, Chairman Thornley stated that if the affidavits relative to the machine measurements and the timing have been given due attention, and if they are received at the office of the Competition Committee in proper form, he will officially accept the records. The Chairman is most emphatic in his statement that the Competition Committee will not seek to take advantage of any technical irregularity in the sanction, and that Humiston will receive full credit for his spectacular work, provided all other essential requirements have been complied with. The hitch relative to the sanction is made clear in the letter published below.

As a startling climax to his performance of December 31 last, in which he started his record breaking, Humiston appeared on the Playa del Rey saucer on January 7 and lowered another set of long-standing marks. The 100-mile record had been held by Jake De Rosier, at 75:24⅗, and Humiston lowered it to 68:01⅘. Humiston's new marks, established in his record-breaking trial, are as follows:

Miles.	Time.	Miles.	Time.
1	:38⅘	27	18:16
2	1:17⅗	28	18:56⅘
3	1:57⅕	29	19:37⅗
4	2:37⅗	30	20:18⅕
5	3:17	31	20:38⅘
6	3:57⅖	32	21:39⅗
7	4:38⅗	33	22:20⅕
8	5:19	34	23:01
9	5:59⅗	35	23:42
10	6:40	36	24:22⅘
11	7:20⅘	37	25:03⅘
12	8:01⅕	38	25:44⅘
26	17:35⅗	39	26:25
40	27:06	71	48:12⅗
41	27:47⅗	72	48:53
42	28:29⅗	73	49:34
43	29:10⅗	74	50:14⅗
44	29:51⅘	75	50:55⅗
45	30:32⅕	76	51:36
46	31:12⅘	77	52:16⅘
47	31:53⅖	78	52:57⅘
48	32:33⅗	79	53:39⅗
49	33:14⅖	80	54:19⅗
50	33:55⅕	81	55:00⅕
51	34:36	82	55:41⅗
52	35:17	83	56:26
53	35:57⅘	84	57:05
54	36:38⅕	85	57:46⅗
55	37:19⅖	86	58:27⅘
56	38:00⅘	87	59:10⅕
57	38:40⅘	88	59:51
58	39:21⅕	89	60:31⅘
59	40:02⅕	90	61:12⅖
60	40:42⅖	91	61:53⅕
61	41:23⅕	92	62:33⅘
62	42:04	93	63:14⅗
63	52:44⅖	94	63:55⅖
64	53:25	95	64:36⅗
65	44:06⅗	96	65:17⅘
66	44:47⅕	97	65:58⅘
67	45:28⅗	98	66:40
68	46:09	99	67:20⅘
69	46:50⅕	100	68:01⅗
70	47:31⅕		

Thornley's letter is in part, as follows:

"It has been publicly stated that the records claimed to have been made in California recently would not be accepted in this office because there was some confusion and irregularity regarding the sanction issued.

"I wish to most emphatically state that the Competition Committee would never be guilty of such an injustice. There is every reason to believe that the man trying for these records did so in good faith, under a sanction that he considered was entirely legal and regular. If the affidavits regarding this trial have been properly made out, and the necessary formalities in the matter of measurement of the machine, etc., have been complied with satisfactorily and properly, the records will unquestionably be accepted. In other words, the question of whether the sanction was regularly issued or not is a matter between the President and the Board of Directors, and has nothing to do with the question of whether the man made the distance in the time claimed or not."

PLACING THE PRESTO

HERBERT D. SHERWOOD, of 11 Parkwood boulevard, Schenectady, N. Y., in a recent letter states that he believes he has found an ideal position for a Prest-O-Lite tank. He attaches it to the seat-post tube under the saddle.

The Humiston Comet, now Exciting Students of the Racing Firmanent.

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Each Everywhere

are as good as Bosch Magnetos; they are considered to be the best Spark Plug made—"Best Plug," because under the severest tests possible they have proven to be worthy of the name they bear.

In the 14 important automobile road races of 1912, Bosch Plugs were on every winner —14 long trying contests, 14 proofs of Bosch Plug Superiority.

The latest Bosch Motorcycle Spark Plug is similar to the famous Bosch Automobile Plug—just as efficient, just as reliable, only reduced in size.

It is quite unnecessary to accept inferior results or misleading sales argument; specify Bosch Plugs—Buy Bosch Plugs; their quality surpasses by far their attractive price.

Write for "Locating the Spark Plug" It contains good tips.

Bosch Magneto Co., 224 West 46th St., New York

CHICAGO DETROIT SAN FRANCISCO TORONTO

Official Distributors in all Important Centres

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MOTORCYCLE MART

One time, three cents a word; twice, two cents a word each insertion. Agents' cards, five cents per word; two or more times, three cents per word each insertion. No advertisement for less than fifty cents.

A GREAT PULLER

"Gridley, Ill., January 3, 1913.
"MOTORCYCLE ILLUSTRATED, New York City.
"Gentlemen: This is just to let you know that your paper is a great puller. I got over 20 inquiries from my little advertisement in your publication, and I am still getting them every day. I sold the goods advertised to the first man to answer my advertisement.
"Wishing you and your paper success, I remain
"Yours truly,
"(Signed) AARON EHRESSMAN."

FOR SALE OR EXCHANGE

1913 READING STANDARD twin for January delivery. Must sacrifice. Write for particulars to H. M. J., care of MOTORCYCLE ILLUSTRATED, New York City.

FOR SALE.—One Edwards-Christ spring tandem, fits 1912 Indians; complete with Troxel saddle, handlebars and foot rests, $12. Carl Truckenbrod, West Brooklyn, Ill.

MOTORCYCLE Dealers and Riders, Attention—1913 Peerless luggage carrier cushions for Indians, Merkels and others. Newest and best. Get prices from dealers or direct. Johnson, Cushion Mfg'r, Detroit, Mich.

WILL EXCHANGE magician's vaudeville act and challenge handcuff act combined, including trunk and sack exchange, paraphernalia of latest make, value $350, for first-class motorcycle. Address Magician, care of MOTORCYCLE ILLUSTRATED.

MOTORCYCLE MAGNETO (Herz) for sale. Price $12. New; never used. F. A. Eberhardt, 938 30th street, Milwaukee, Wis.

FOR SALE.—1912 M. M. single, 4½ h.; best condition; full equipment; looks like new. Price, $125. G. H. Van Buskirk, 414 Brown street, Philadelphia.

FOR SALE.—New 1912 Indian, 7 h. twin; in perfect condition throughout; run about 200 miles; not a scratch on it; can't tell it has ever been used; red, 2¾ tires, luggage carrier. Need money, must sell, $190. Ship C. O. D. Address L., Box 32, Barnesville, Ohio.

FOR SALE.—Standard $20 speedometer, 80-mile dial, $10. Set of new drive chains $2.25; fit Indian or other machines. H. Emrick, 1643 W. Monument, Dayton, Ohio.

THROUGH the sudden death of my uncle I have in my possession a new up-to-date Smith Premier typewriter valued at $110, for which I have no use. Have just unpacked and find it in excellent condition. Will exchange this typewriter, together with a 4 h. gasoline engine, for a 1912 twin motorcycle. Address Pinney A. Currey, Baker, Oregon.

FOR SALE.—Battery Indian, $65. Magneto Merkel, $90. Magneto Excelsior, $90. All good condition. 1912 Magneto Indian rode about 800 miles, A1 condition, $135. Will crate. Arthur J. Henderlong, Crown Point, Ind.

FIRST CHECK for $25 takes a 10 h. p. Olds auto engine, mounted on substantial skids, all ready for running any kind of machinery. Has new cylinder and piston; very powerful; also a 4½-inch driving pulley. Address O., 624 Mercer Ave., Decatur, Ind.

POCKET PHOTO outfit; very neat novelty; full outfit prepaid 10 cts. A Warfel, Photographer, Cadiz, Ohio.

WILL CONSIDER the sale or exchange of typewriter (visible), valuable collection of stamps, electric fan, acetylene projectorscope and several very old books; value $175 or more, for late model magneto motorcycle, clutch preferred. No junk given or wanted. Address "Motor," Mountville, Virginia.

FOR SALE.—New Era auto cycle; excellent condition; recently overhauled; must sell quickly. First check for $150 takes machine. Address "A," care of MOTORCYCLE ILLUSTRATED.

FOR SALE.—One 4 h. p. motorcycle, with clutch and magneto. Will sell cheap. Route 1, Box 34, Edgar, Nebr.

FOR SALE.—Indian twin, 1912, two speed; fine condition. $225. Geo. Horner, 1321 Howe St., Racine, Wis.

FOR SALE.—Flying Merkel twin, free engine, 7 h., chain drive 1912 model; used 2 months; am compelled to sell and will sacrifice for $143.99. This is some bargain; including tandem attachment. Must act quickly. This machine is in first-class condition. O. B. Haines, Slanesville, W. Va.

FOR SALE.—September, 1912, Indian 7, Blue Demonstrator, 2¾ tires, tandem attachment with Troxel saddle, tools, exhaust whistle, large headlight, separate generator; outfit practically new. Will allow examination. $185. Thor 2½, just factory overhauled, with new tire, $45. 1913 Harley 5-35; brand new, run once, $195. Reichel Motorcycle Co., Macon, Mo.

BANKRUPT SALE.—Fine collection of motorcycles must go for debt. Send for sacrifice list. Hailstone Motorcycle Garage, Northampton, Mass.

FOR SALE.—One new side car, complete; fits any machine, $25. H. Kaskel, Spencerville, Ohio.

HELP AND SITUATIONS WANTED

YOUNG MAN wishes to connect with concern handling motorcycles, where an opportunity to learn is offered. Moderate salary. Member F. A. M.——E. M. Van Name, 336 51st St., Brooklyn, N. Y.

WANTED.—A high-class draughtsman having had motorcycle experience. In making application state previous experience and salary expected. The Pope Mfg. Co., Westfield, Mass.

MISCELLANEOUS

FOR SALE OR RENT.—Factory in New Jersey; 10,000 square feet; 40 miles from New York. Best roads in country. Address "E," care of MOTORCYCLE ILLUSTRATED.

MOTORCYCLE RIDERS can make big money demonstrating a new patented motorcycle article. Experience not necessary. Write for information. Address G. M. C., 1001 N. Willow avenue, Chicago, Ill.

WANTED.—A job lot of 100 or 200 bicycle frame sets with hangers unbrazed. 1-inch or 1⅛-inch tubing. M. Worksman, 14 Vesey St., New York City.

INDIVIDUALLY CAST PISTON RINGS.—We manufacture and carry in stock piston rings for all motorcycles. Rings furnished in lots of twelve at 25 cents each. Send cash with orders for less than 100. Special prices on quantities. We guarantee better rings than you are using, at lower prices. Hebert Mfg. Co., Franklin, N. H.

DEALER'S CARDS, Etc.

GUS ROTHOLZ, agent for Indian and Excelsior. 1491 Fifth avenue, between 119th and 120th streets, New York. Telephone, Harlem, 2337.

RIVERSIDE MOTORCYCLE GARAGE.—Distributor for the Reading-Standard and agent for Eagle motorcycles and Simplex sidecars. 1913 models in stock. A large number of used machines at bargain prices. Complete machine shop. All repairs and supplies. 533 W. 110th St., near Broadway. Tel. 5615 Morningside.

"BOB" BRAZENOR, "Specialist on Repairs."—Brooklyn agent for Harley-Davidson and Excelsior. Parts for Excelsior, Indian, etc.; supplies. 1507 Bushwick avenue, Brooklyn.

B. & C. TWO-SPEED and free engine gears for chain-driven motorcycles of the counter-shaft type. Bushnell & Cannon, 1288 East 80th street, Cleveland, Ohio.

THE LATEST AND BEST guaranteed Motorcycle Supplies at lowest prices will be shipped same day your order is received. You get satisfaction in every package. Write for largest Motorcycle Supply Catalog ever printed. Motorcycle Equipment Co., Hammondsport, N. Y.

T. J. SIXSMITH, expert repairing; agent for R.-S., Indian and Excelsior motorcycles. 208 W. 100th street, New York.

M.-M. AND EAGLE motorcycles. Two big twins—$240 and $275. Two big singles—$200 and $235. The largest and most powerful line in America. Full line of parts and accessories at George P. Jenkins, Eastern Distributor, 256 West Fifty-fifth street, New York City.

PARTS in stock for F.-N., Curtiss, Royal Pioneer, Indian, Thor, Marsh, Griffon and others, and sundries. Tiger Cycle and Aeroplane Co., 782 Eighth avenue, New York.

THE NEW YORK Motorcycle Co., 782 8th avenue, New York City. Distributors of Thor motorcycles and parts. We have the only supply of parts in America for F.-N. and Royal Pioneer motorcycles. We also carry a big stock of parts for Indian, Curtiss, M.-M., N. S. U. and R.-S. We have at all times over 50 used machines at all prices We repair broken cylinders, pistons and crank cases. We have the largest and best equipped motorcycle garage in the country and we do reliable repairing.

HAVE YOUR motorcycle overhauled now; expert work, moderate charges; ten years' experience in motorcycle repair work. Parts for N. S. U., Indian and Peugeot. Metropolitan Motorcycle Repair Co., 320 Amsterdam avenue, cor. 75th street, New York.

T. S. CHIPLEY—The Motorcycle Man, Greenwood, S. C. Distributor of Harley-Davidson motorcycles and parts. We have the best equipped repair shop in the South. All parts for Harleys in stock at factory prices. Terms, cash with order. When in need of parts save time and order from us. Also have tires, belts, oils, etc. Prompt shipments guaranteed. T. S. Chipley, Greenwood, S. C.

AGENTS WANTED

Motorcycle and bicycle agencies can make big money during dull season selling our gasoline lighting systems for stores, houses, streets, etc. Write for free catalogue.
DOUD LIGHTING CO.,
137 No. Sangamon street, Chicago, Ill.

When writing to advertisers, please mention MOTORCYCLE ILLUSTRATED.

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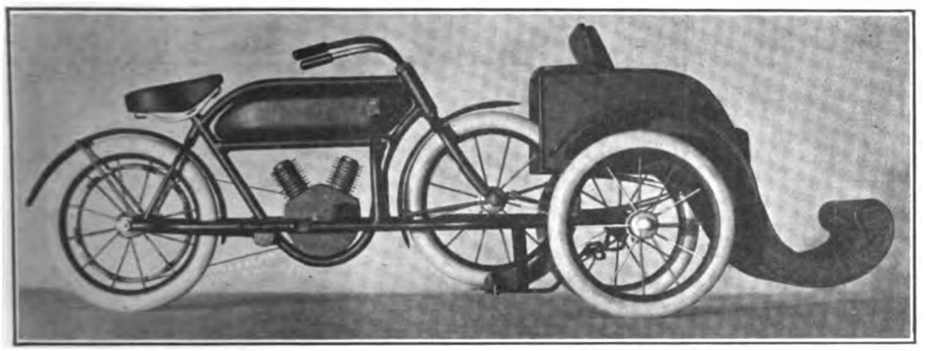


A Photograph of the Razoux Forecar Model.

MOSSBERG SPECIALTIES.

WRENCHES of S, alligator and socket types made up the bulk of the exhibit of the Frank Mossberg Company, Attleboro, Mass., as far as the interests of riders of two-wheelers was concerned, but there were other novelties which also attracted attention. Among these may be mentioned the belt-couplings, pressed steel parts such as sprockets and cups, and for the sidecarist, foot-operated gongs to be worked by the passenger.

CRAWFORD TWIN

ONE model only, and that a 9 h. twin, known as the Model A Crawford, will be the product of the Midland Manufacturing Company, 1912 Michigan avenue, North, Saginaw, Mich., for 1913. The motor is of De Luxe make and fitted with Bosch armored magneto and an Eclipse clutch, the final drive being by chain. Lubrication is by splash, with drip feed from the tank, and a hand pump is fitted as an auxiliary. The frame is of the loop type and the fork of the coach spring or cradle type with recoil bumper.

The wheelbase is 57½ inches and 28 by 2¾-inch tires are regular equipment. The brake is of the Eclipse multiple disc type, and the saddle equipment is the Troxel. The price complete is given as $285. Further details will be given in a later issue.

NEWARK AGENCY

HERBERT AUSTIN, of Newark, N. J., has taken the agency in Essex County for Reading-Standard machines. Mr. Austin has been in the bicycle business for years past, but has not heretofore handled motorcycles. It is stated that the Reading-Standard folks have recently placed 1913 agencies in Chattanooga, Tenn., West Point, N. Y., and that many other new dealers are ready to blaze trails for the Reading product during the coming season. G. E. Atkins, of the Reading-Standard sales staff, reports that an unexpectedly large number of prospects were lined up during the New York show.

BIG YALE CONTRACT

AN unusually large contract is that recently closed by the Los Angeles Motorcycle Company, of Los Angeles, Cal., for 1,000 Yale motorcycles, to be delivered in 1913. The company will cease handling other makes and devote its time exclusively to the Toledo product.

R. I. V. BALL BEARINGS.

R. I. V. radial ball bearings in a special narrow series, suitable for motorcycle service, were shown in company with a wide variety of other sizes in the Grand Central Palace display of the R. I. V. Company, 1771 Broadway, New York City.

BIG EXTENSION NEEDED

THE increased volume of business swinging to the Pennsylvania Rubber Company, due in a large measure to the heavy demand aroused by the recent introduction of the oil-proof feature in their Vacuum Cup tires, has necessitated the formation of plans for immediate extension of the factory at Jeannette, Pa. At a recent meeting of the board of directors it was decided to erect a three-story addition to the plant. The new building will cover an area of 8,000 square feet and will cost approximately $100,000.

For 1913 the advance orders insure a sale of at least twice the volume of the 1912 shipments. At the present time as large a force of workmen as can be accommodated is kept constantly at work, in an effort to catch up on orders before spring. With the opening of the new addition to the factory the capacity of the mill line will be doubled. The operating staff in the tire rooms is to be greatly increased with as little delay as possible and the production of oil-proof and other tires will proceed with increased speed.

HARRIS OILS.

MOTORCYCLISTS at the Show had their attention called to the fact that the Harris Oil Company, of 326 South Water street, Providence, R. I., is marketing a high-grade of heavy cylinder oil, which has been found to give excellent results in motorcycle service where the firm's light or medium grades did not meet all the requirements. The company's sales of motorcycle oil are large.

FORECAR ATTACHMENT.

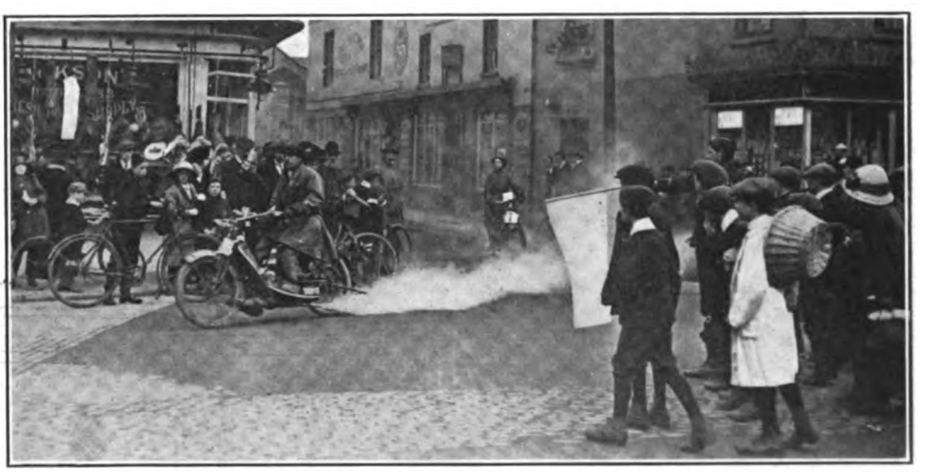
A UNIQUE forecar attachment which does not involve rebuilding the motorcycle to which it is fitted, is the invention of T. W. Razoux, of 209 St. Marks avenue, Brooklyn, N. Y. The frame of the forecar is prolonged rearward to form braces whose ends attach to the rear axle, and intermediate braces attach these longitudinal members to the frame of the motorcycle. It is not necessary to remove the front wheel; its tire is fitted into a curved shoe which is attached to the steering linkage turning the front wheels of the forecar. The seat is hollowed at the rear to accommodate the front wheel of the motorcycle. Steering is very easy, and it will be apparent that it is only necessary to loosen four bolts to release the motorcycle ready for solo work, or to set up the same bolts and drop the front wheel in the steering-shoe to have a tricar ready for use. The inventor has seventeen patents covering this attachment and is in the market to dispose of them. Its adaptability to a motorcycle for alternating pleasure and business service is very apparent.

PRESTO-O-LITE TANKS

IN these days of rapid motorcycle developments, one of the most interesting and significant inclinations is toward night riding, and in order to make the most of his mount after nightfall the thoughtful rider is studying the lighting problem with great care. As a result the already country-wide interest in Prest-O-Lite gas tanks is being still further stimulated, and reports from the factory are to the effect that the most consistent efforts will be necessary to keep abreast of 1913 orders. The Prest-O-Lite folks are calling attention to the fact that it is now possible to obtain special fittings for attaching the gas tank on the machine at almost any point the fancy of the rider may dictate.

CHANGE IN FIRM.

CHANNING BURBANK has succeeded H. F. Bidwell in the Bidwell-Conklin Company, motorcycle dealers in New York City, and the firm now operates under the name of Burbank, Conklin & Co. During 1913 they will seel a complete line of Pope models and parts. The Bidwell Trophy Race, now an annual event, will be run off in the spring.



AN ENGLISH TRIAL

THE accompanying photograph shows two of the contestants in the recent Midland motorcycle reliability trial, conducted by the Sutton-Coldfield Automobile Club, in England. It will be noted that the first rider is not at all solicitous about his exhaust, and that the second contestant, who is ploughing through the smoke, is of the fair sex.

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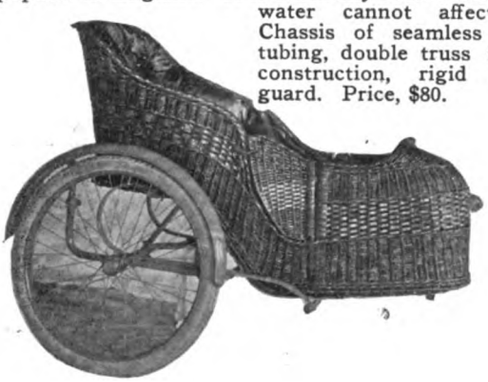
BAXTER

The Sidecar Luxurious

Never before has the sidecar been so universally popular. There must be a reason for this, and it is not hard to find. The consistently satisfactory service given by Baxter Sidecars—their comfort, their durability, their lightness and their generally ideal construction did more in 1912 to give the right impetus toward popularizing sidecar riding than anything else. Here are shown three new models of the Baxter that cannot help but be in tremendous demand.

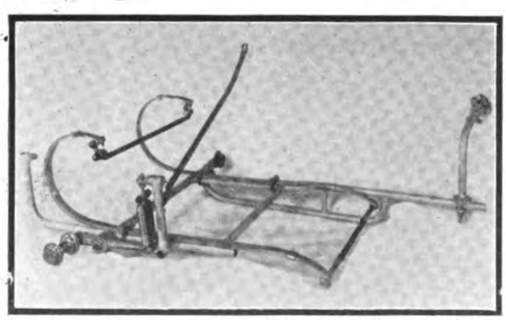
Model No. 1

Body made of small reed. This model is one of the most popular in England. It is staunchly constructed and water cannot affect it. Chassis of seamless steel tubing, double truss frame construction, rigid mudguard. Price, $80.



Model No. 2

Body made of willow, steel reinforced throughout, deep leather cushions, non-fraying. A splendid, light and substantial body. Same chassis construction as No. 1. Price, $75.



Here is shown the famous Baxter chassis which is the basis of our success as sidecar builders. Note that there are only two points of attachment, both quick-detachable. Tension spring, absolutely absorbing all shocks, fitted to any of our models, $10 extra. Write for our complete catalog, describing the Baxter Delivery Van, the last word in commercial sidecars.

BAXTER SIDECAR CO., 119 Broadway, Cambridge, Mass.

The Miller Non-Skid "Block Tread" Tire

Satisfies the demand for a stronger and larger tire. Its construction is such that it can withstand the most severe road conditions with minimum wear.

PREPAID TO ALL POINTS

Miller's Non-Skid "Block Tread" Motorcycle Tires

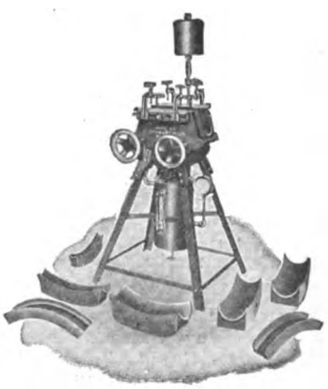
Size	Tubes and Casings Guaranteed	Heavy Red Tubes	Tube Casing
26x2½	"Block Tread"	$2.60	$8.00
28x2½	" "	2.75	8.80
28x2¾	" "	2.85	9.75

Miller's Improved Adjustable Sectional Vulcanizer

One of the 37 kinds we manufacture. Repairs perfectly all sizes Bicycle, Motorcycle and Auto Tires and Tubes.

Our 44-page catalog, covering Auto Tires, Tire Repair Stocks and Tire Re-Liner, is yours for the asking. We also make the Standard Grade Tire, which is corrugated. This tire is lighter, but of the same quality of rubber and friction.

CHAS. E. MILLER
ANDERSON RUBBER WORKS
ANDERSON, IND.



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We Make the F. A. M. Official Uniform.

FVRDRI

"Proofed for Rain"

Motorcycle and Sporting Clothing for Men and Women

is exceptional for its water proofing and long wearing qualities. No other cloth is so protective from rain and cold.

Our garments are stylishly cut and handsomely made in every particular, and they are sold under an **Iron-Bound Guarantee** for Satisfaction.

Sent on approval to Jobbers and Dealers giving good references.

The cut shows the F.A.M. Official Uniform, for which we are prepared to take orders for Jobbers, Dealers and Clubs.

We also carry a complete line of Motorcycle and Sporting Clothing for Men and Women in Norfolk and Double-breasted Styles. All shades and qualities of cloth.

UP-TO-DATE DEALERS ARE SELLING THEM.

Catalogue Cheerfully Sent on Request.

THE LOEWENBERG LINE

Also includes

The "ELCO" Coat

(Patent applied for.)

a most serviceable garment for both Motorcyclists and Motorists. It is made of the famous FVRDRI material and can be worn either loose or tucked into leggings as shown in cut.

The Loewenberg Co. is not only known well in the trade, but also by other clothing manufacturers, as a house of strictly honest Business Policy.

No Trial Order is Sent with risk of any sort. We send goods on approval to Jobbers and Dealers furnishing good references.

We Send Samples of different materials with catalogue.

May We Send Them to You, Mr. Jobber or Mr. Dealer.

The LOEWENBERG COMPANY

58 Golden St., Newark, N.J.

Don't neglect to write that postal for prices and catalog today.

When Used as a Motorcycle Garment.

Do You Get Road Mileage or Paper Mileage From Your Tires?

In selecting your tires do not let the so-called "guarantee" affect your decision. Your guarantee avails you nothing if the quality of makeup prohibits the perfect service which you should get from your tires.

KOKOMO TIRES

represent the highest achievement in tire construction. Sixteen years of tire manufacturing experience are back of them, and the best, and only the best, of material and workmanship go into their makeup. The result, proven by many tests, is that Kokomo tires are Economical—Efficient—Enduring.

Write for our booklet.

KOKOMO RUBBER CO.

KOKOMO, IND.

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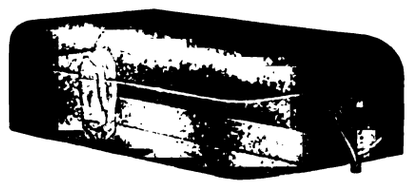
THE ERO CATALOG IS READY and waiting for everybody who wants one. We have yours all ready and waiting for the address.

SEND FOR IT TODAY

Some of the Ero Motorcycle Jewelry

Tandem attachments.
Spring luggage and passenger carrier.
New Ero luggage carrier.
Tool box and gas tank carrier.
Mail carrier and heavy service luggage carrier.
Kick off stand latch.
Strong web strap with patent buckle.
Hair cushions and spring cushions.
Ero tandem pedals.
Axle nuts for every motorcycle made.
Hand warmers, magneto cover and front and rear wheel guards.
Universal lamp bracket.
Bicycle luggage carrier.

MODEL "B"
Ero Foot Rest Carrier.



MODEL "G"
Tool Box and Gas Tank Carrier.

ERO MANUFACTURING COMPANY

418 West Indiana Street **CHICAGO, ILLINOIS**

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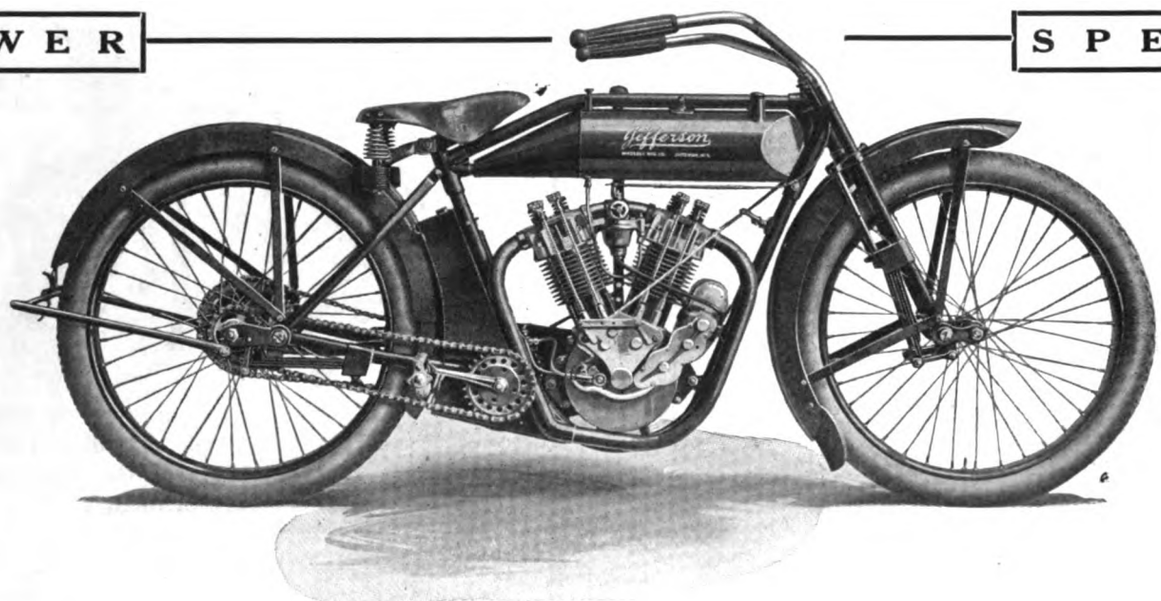
POWER — SPEED



DURABILITY — COMFORT

In Just FOUR POINTS the JEFFERSON is Supreme

These are POWER—SPEED—DURABILITY—COMFORT.
In all the rest it is woefully lacking. We admit it.

Get our Catalog. It explains.

WAVERLY MFG. COMPANY, Waverly Place, Jefferson, Wis.

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MODEL "A" SPRING LUGGAGE AND PASSENGER CARRIER.
Size of top, 8 x 14".

Here is the neatest and most practical carrier on the market.

The top is just the right size for carrying passengers—it is not too wide to straddle. Carrier is furnished with a pair of axle nuts and will fit any motorcycle. Special lugs to fit Indian. Enameled in five colors—Red, Gray, Blue, Yellow and Black.

Motorcycle Jewelry

Designed by the

Ero Manufacturing Company

WELL, BOYS, WE ARE WITH YOU for 1913 with a classy line that touches the spot. Everybody connected with a motorcycle or the trade will appreciate our line for 1913.

AS USUAL EVERY ERO accessory is far ahead. Ero designs and ideas are exclusive and you get your money's worth.

The Ero line for this year just bristles with useful things that we were the first to produce.

ERO ERO ERO

There Are Times When Ignorance Is Not Bliss

Let us enumerate:

For instance, on a sweltering day while you're happily breezing along, your motor suddenly develops the "fidgets." You get off and investigate. If you know all about a motor's internal construction and are "wised up" on how to handle a cranky magneto, and know all there is to know about the carbureter—you will EVENTUALLY locate the trouble. But if you don't—you're STUCK!

Then is the time to dig into your tool box and consult your tried and true friend

The Motorcycle Manual

Its trouble chart tells how to locate the trouble and REMEDY IT. It tells all there is to tell about every part of your motorcycle. It gives concise information regarding license laws in every State in the Union. It gives the official racing records. It explains horsepower and other mechanical formulae; it is a handy motorcycle trade directory; it enlightens you as to the F. A. M.—who's who and what he is doing—it—oh, well!—do you think you can afford to be without it? And it costs a quarter. We don't have to tell you what to do with the coupon in the corner.

Motorcycle Publishing Co.
51 Chambers Street, New York

I enclose 25c. for a paper-bound / 50c. for a cloth-bound copy of THE MOTORCYCLE MANUAL.

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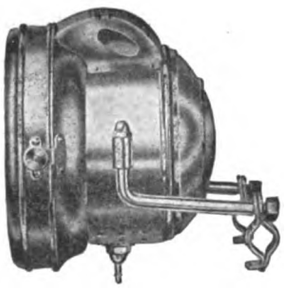
OLD SOL
MOTORCYCLE LAMPS
LENS

We are great believers in making an article that gives entire satisfaction.

READ THIS

"I have sold over 100 'Old Sol' Lamps this season and not one complaint. Will handle no other Lamp but 'Old Sol.'
"Ernest Broadbent, Attleboro, Mass."



OLD SOL No. 8

Power—Efficiency—Quality are the arguments for "Old Sol" Lamp No. 8.

You ride a twin because it has the reserve power to draw on.

By using this large lamp you obtain a light penetration to be secured in no other way. No. 8 is the most powerful motorcycle lamp made by 500 candle power.

No. 8 is equipped with ball pin hinges, special German lava burners, automobile type, heavy double thick door glasses, and specially ground Mangin mirror lenses. Bodies are made of heavy gauge brass, drawn from one piece of metal, and door frames of special beaded construction to give them strength.

Diameter of door, 8 in. Diameter of lens, 6 in.
Candle power, 1500. Weight, 4 lbs. 2 oz.
Brackets, per pair, $1.00; Bezel, 50c. extra.

PRICE $6.50

OLD SOL No. 17

No. 17 is second to No. 8 in Power, Efficiency and Quality. It also has abundant power to draw on. It is next to the most powerful motorcycle light manufactured, being only exceeded by Old Sol No. 8. Like No. 8 and No. 1 and No. 2 it is equipped with ball pin hinges, special German lava burners, automobile type, heavy double thick doors, glasses, and specially ground Mangin mirror lenses. Body is made of heavy gauge brass, drawn from one piece of metal and door frames of special beaded construction to give them strength. Old Sold No. 17 differs from No. 8 in that it is smaller, lighter and less powerful.

Diameter of door, 7 in. Diameter of lens, 5 in.
Candle power, 1000. Weight, 3 lbs.
Brackets, per pair, $1.00; Bezel, 50c. extra.

PRICE $5.50

OLD SOL ELECTRIC TAIL LAMP

Description. Weight, 22 ounces. Combination bracket holds number plate and allows white light from lamp to illuminate same. Red jewel on head throws rear signal. Burns from 20 to 25 hours intermittently. Supplied complete with 1 candle power bulb and battery No. 790.

Model No. 20

PRICE $3.00

Parts for No. 20 "OLD SOL" Electric Tail Lamp

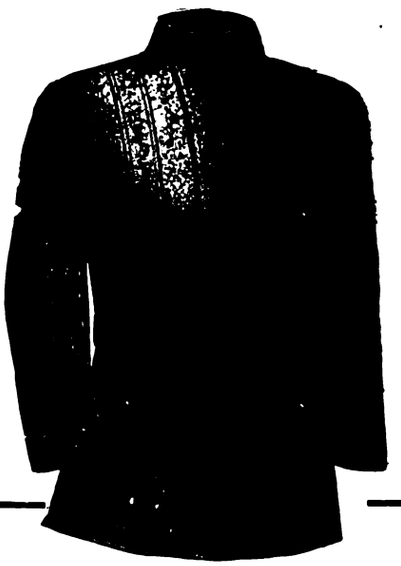
Red Jewel complete	$0.25
1 C. P. Mazda Bulb No. 1198	.50
No. 790 Battery	.50
Bracket for lamp and number plate complete with bolts and nuts	.50

Specially designed bracket enables rider to detach lamp and use same for trouble lamp.

ALL OF OUR DEALERS ARE SATISFIED YOU KNOW WHY

Write for Sales Proposition

HAWTHORNE MFG. CO., Inc., 35 Spruce St., Bridgeport, Conn.



AURORA BRAND

Motorcycle Clothing

Look for this stamp on your motorcycle clothing. It is a guarantee of the highest quality obtainable. Fit, style, service and satisfaction are contained in every garment turned out by us. AURORA BRAND MOTORCYCLE CLOTHING has been conceded for years to be the acme of perfection, and although imitators have been numerous, none have been able to approximate the absolute "alrightness" of AURORA BRAND clothing. That is due to our policy of

Strength in every fibre
Quality in every thread

We make suits to your individual measure. We make the popular ladies' motorcycle dress, with detachable front panel. We make dusters for motorcyclists and automobilists. We make, in fact, everything in the line of wearing apparel for the motorcyclist. We solicit correspondence with club secretaries. Our specialty is outfitting entire clubs, of which business we have practically a monopoly in this country. We will send you our catalog on request.

A FEW OF THE FIRMS WHO HANDLE OUR LINE.

Jenkins & Co., Des Moines, Ia.
Elyea-Austell Co., Atlanta, Ga.
Oberwegner Motor Co., Toledo, Ohio.
B. A. Swenson, Providence, R. I.
Motorcycle Equipment Co., Hammondsport, N. Y.
W. D. Andrews, Buffalo, N. Y.
C. A. Burghardt & Sons, Milwaukee, Wis.
L. P. Birkenbach Co., Columbus, Ohio.
Motorcycle Accessories Co., St. Paul, Minn.
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Get our Folder Describing the Official F. A. M. Suits

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Aurora, Ill.

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MODEL A

Mueller Tandem Attachments

TO FIT ALL INDIAN MOTOCYCLES

Specially Adapted to New Spring Frame Models

MODEL A attachment is for 1913 spring frame machine and does not interfere with frame action. Attachment is made of steel tubing and drop forgings, well brazed—enameled and nickeled. Large Troxel motorcycle saddle, Kelly adjustable handle bars, standard No. 3 pedals. Enameled red to match motorcycle.

MODEL B attachment will fit all rigid frames fitted with luggage carrier bosses. Also made with curved tube to attach on forward seat post when desired. Colors: Red, blue or green.

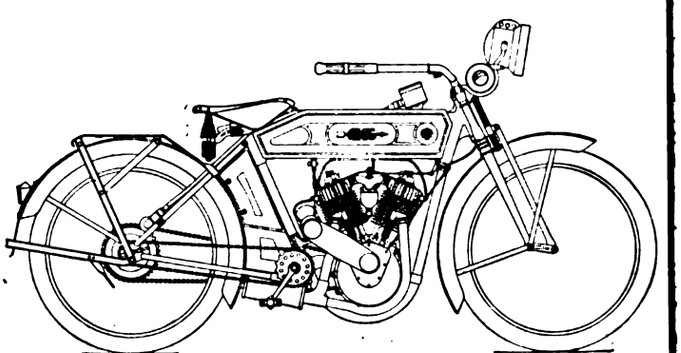
L. J. MUELLER

6307-09-11 Woodland Ave. CLEVELAND, O.

MODEL B

ALLIED MOTORS CHICAGO AMC U.S.A. MOTORCYCLES

AMC



THE ONLY COMPLETE MOTORCYCLE

With Every Equipment

Five Models

All with Eclipse Free Engine Pulley

A machine with an abundance of power, exceptionally well proportioned and balanced, made to answer every requirement of city use and touring with the greatest comfort and economy.

The successful agent does not guess; he knows—because he takes the trouble to find out. Get the A-M-C proposition which shows the way to easy sales and big profits.

We will exhibit at the Chicago Show—Space No. 18.

Manufactured by

Allied Motors Corporation

MOTORS BUILDING

Union Park Place and Carroll Ave. CHICAGO, U. S. A.

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Edelmann Economy Gauge Enjoined—Twitchell Patent Again Sustained—Injunction issued in favor of A. Schrader's Son, Inc.

Notice is hereby given to the trade that:

In a suit brought by *A. Schrader's Son, Inc.*, of New York, against **E. Edelmann & Co.**, of Chicago, for infringement of **Twitchell** patent No. 927,298, Judge Humphreys, of the U. S. District Court of Illinois, issued on December 18, 1912, a preliminary injunction restraining **E. Edelmann & Co.** from the manufacture, sale and use of the **Edelmann Economy Gauge.**

This injunction, which was granted despite vigorous opposition by **E. Edelmann & Co.**, is the last of an unbroken series of victories for the **Twitchell** patent, now the sole property of *A. Schrader's Son, Inc.*

The decision of the Illinois court sustains the contention of the owners of the **Twitchell** patent that this patent covers all "pencil type" gauges now upon the market.

The following gauges have been held to be infringements of the Twitchell patent:

The Northam Gauge—held to be an infringement by the U. S. Circuit Court for the Southern District of California in the suit of Chas. R. Twitchell vs. Northam Auto Pressure Gauge Co.

The Prest-O-Lite Gauge—held to be an infringement in the suit of Chas. R. Twitchell vs. Prest-O-Lite Co. in the Southern District of New York.

The Safety Tire Gauge—held to be an infringement by the Supreme Court of the District of Columbia in the suit of Chas. R. Twitchell vs. Rudolph & West Co.

Furthermore, in the suit against the New York Sporting Goods Co., the *sale* of the Edelmann Economy Gauge was enjoined.

All other infringers will be promptly prosecuted.

The only gauges authorized under the **Twitchell** patent are the *Schrader Universal Tire Pressure Gauge*, the **Twitchell Tire Pressure Gauge** and the **Allen Tyrometer.**

The trade is warned that the sale or use of the **Edelmann Economy Gauge,** or of other infringing gauges, is as much an infringement of the **Twitchell** patent as the manufacture of the gauges themselves.

Consequently, jobbers and dealers handling infringing gauges are liable to injunction and damages.

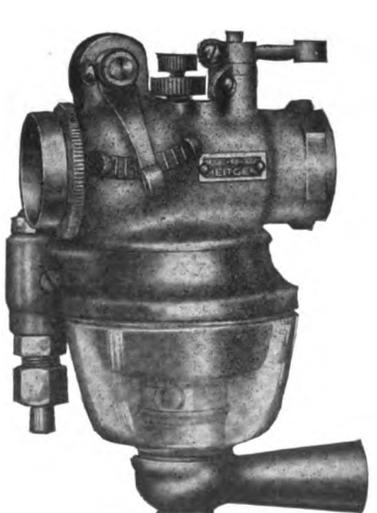
Schrader gauges may be obtained for $1.00 from all tire manufacturers, jobbers, supply dealers, garages, or from

THE
Schrader
Tire Pressure Gauge
is absolutely
accurate
Ask Your
Tiremaker

28-32 Rose Street **A. Schrader's Son, Inc.** New York

HEITGER MODEL K—1913

Made in ¾" and 1" pipe threads, and special threads for Spacke, Pope, H-D, Excelsior, Merkel, and Emblem, same list, ¾", $10.00; 1", $10.50. Where special fittings are needed, extra price. Has new air valve, no friction, or stems to wear, causing air leakage in low; air adjusted instantly from saddle, for starting, etc. Needs no priming in coldest weather. Furnished with glass or metal bowls, same price, the two being interchangeable.



HALF SIZE

Has new gasoline feed, two jets, one for low, one for high, with separate adjustments, giving minimum and maximum speeds. Owing to air valve action, etc., gives greatest possible speed to motor on minimum gasoline consumption. Light in weight, castings of aluminum, polished nickel plate.

Heitger Carbureter Co.
1129 Beecher St., INDIANAPOLIS, IND.

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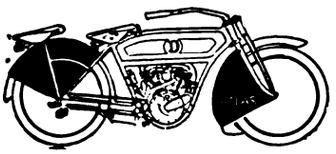
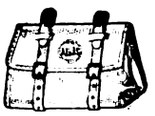
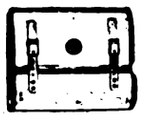





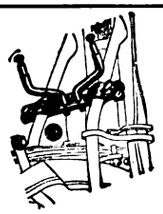
ATLAS **Stop! at the sign of the Wheel** ATLAS

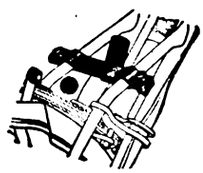
At Booth 27, Chicago Show, you will find the most complete line of Fabric and Metal Supplies ever made by one firm. Our large manufacturing facilities combined with our first hand knowledge of the rider's requirements, gained from actual riding experience, has always kept us consistently to the front as manufacturers of the RIGHT GOODS AT THE RIGHT PRICES.

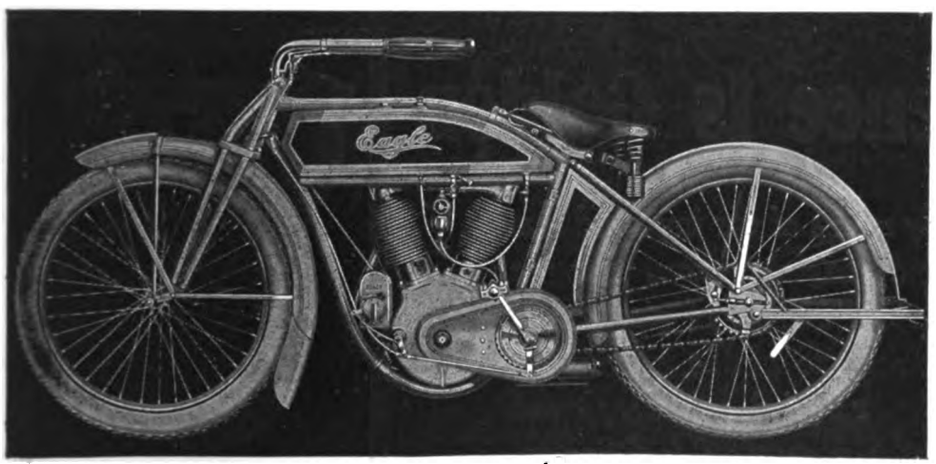
We have still some choice territory open for the man who writes us at once. Our new catalogue is now ready for you.

A new departure are lamp brackets to fit all makes of machines. Hurry and write for more detailed information.

Atlas Specialty Manufacturing Co.
557-63 W. Jackson Blvd., Chicago, Ill.







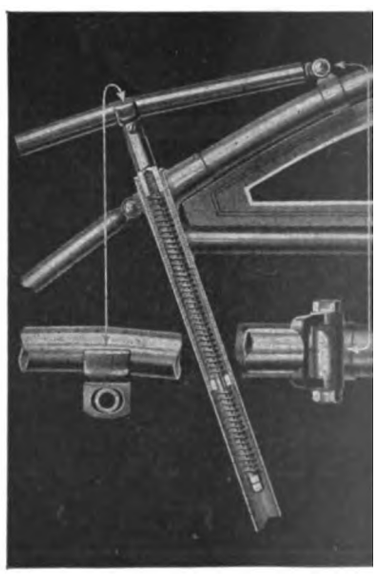
The Great American

Eagle

NEW CHAIN-DRIVE MODEL

9 to 12 H. P. Twin $275

By far THE SLICKEST THING AT TH NEW YORK SHOW.



JUST GAZE AT THE CUT. Compare the lines and features with others. Send for new literature describing and illustrating

THE EAGLE DE LUXE MOTOR
THE EAGLE CHAIN DRIVE, THRU ECLIPSE COUNTERSHAFT AND CLUTCH
THE COMPLETE GRIP CONTROL
THE AUTOMATIC STAND
THE DOUBLE OILING SYSTEM
THE IMPROVED SPRING FORK
THE REINFORCED LOOP FRAME

and the

"CONSTANT LEVEL SEAT POST"

"A WELLSPRING OF COMFORT"

The only spring seat post with a roller bearing plunger. Notice the husky hinge joint. No side play there.

Write Nearest Distributor or Factory for Full Information.

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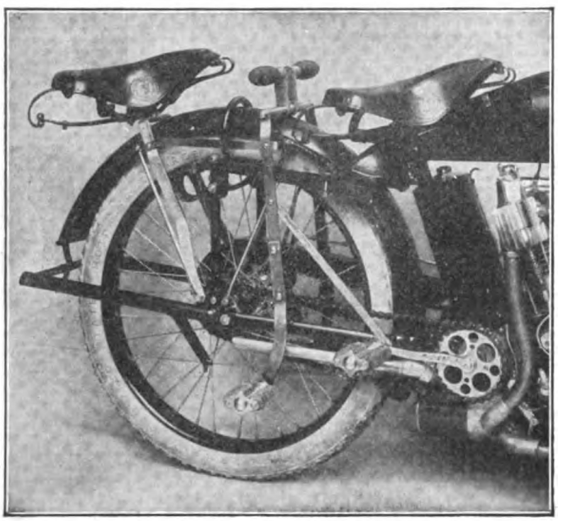
BU-REM MOTORCYCLE SPECIALTIES

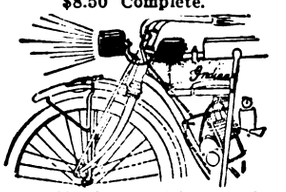
The Most Practical and Most Up-to-Date Motorcycle Appliances on the Market

Note the Compactness and Simplicity of our Specialties. They are made to please.

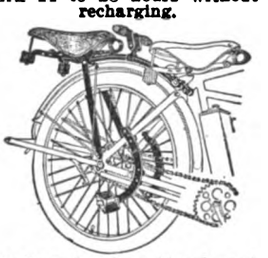
Bu-Rem Tandem Attachment For 1913 INDIAN.
Price $15.00 Complete with Saddle.



Bu-Rem Electric Light Outfit.
$8.50 Complete.

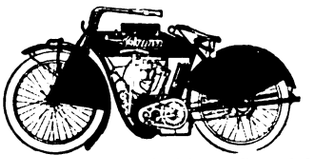


No Flame, No Smoke, Windproof. Will burn 14 to 28 hours without recharging.



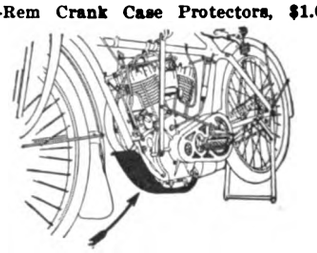
Bu-Rem Tandem Attachment.
Fits All Loop Frame INDIANS except 1913 Model. Price, less saddle, $12.00.

Bu-Rem Dust and Mud Shields.
$1.50 Set for both wheels.



Protect Rider and Machine. Save labor and inconvenience of cleaning.

Bu-Rem Crank Case Protectors, $1.00.

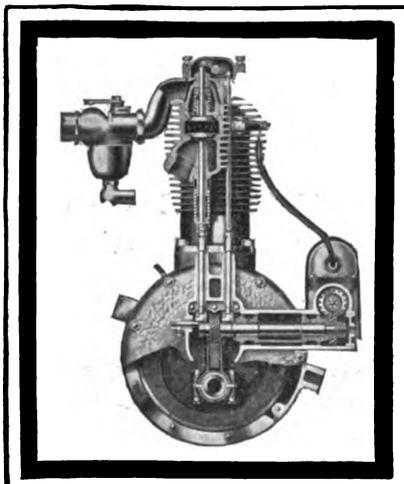


Protect Crank Case, Pet Cocks and Motor. Will fit all makes with Loop Frames.

Distributers for THE SILENT INDIAN
Cincinnati and Vicinity

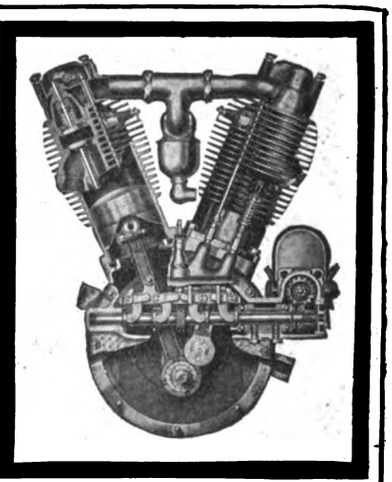
The BUMILLER REMELIN COMPANY

Manufacturers—Jobbers—Dealers **Cincinnati, Ohio**



Silence is Golden

By reason of our improved cam and magneto drive, using a smaller number of gears, all of which are of the spiral type, our rigid crank shaft and the care exercised in fitting up,



DeLuxe Motorcycle Motors

are comparatively silent in operation.

FOUR SIZES

4 H. P. Single Cylinder Motor
5 H. P. Single Cylinder Motor
7 H. P. Twin Cylinder Motor
9 H. P. Twin Cylinder Motor

The F. W. Spacke Machine Company

INDIANAPOLIS, INDIANA, U. S. A.

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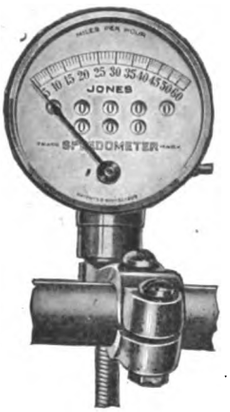
For Motorcycle Use

JONES SPEEDOMETER



All the features and refinements found in our speed-indicators for automobiles are contained in this instrument built especially for motorcycles. Always in view; strong, reliable and ***accurate.*** Proper fittings for all standard machines.

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Main Office: Bush Terminal, New York

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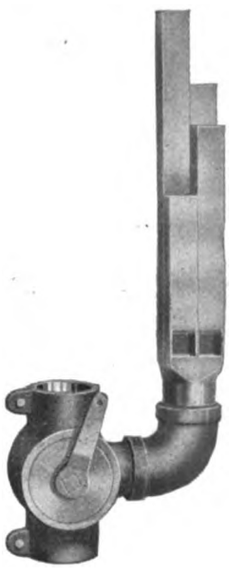
TRINITY CHIMES
Motorcycle Chimes



Every motorcyclist, no matter what make of machine he rides, should have a Trinity Chimes. The tones of the four tubes blended together give a mellow sound. Its pleasant warning will avert many an accident. It is easily attached and easy to operate. Its upkeep is nothing.

Every dealer should carry Trinity Chimes. Cuts furnished free for catalogues.

NEW ERA MFG. COMPANY
645 Railway Exchange
CHICAGO : : ILL.

DEALERS! In Motorcycle Accessories ATTENTION

The Volume of Our Business Insures Prompt Service—Reliable Goods

Jobbers of
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Free Engine Pulleys
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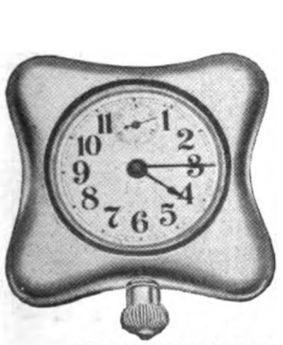
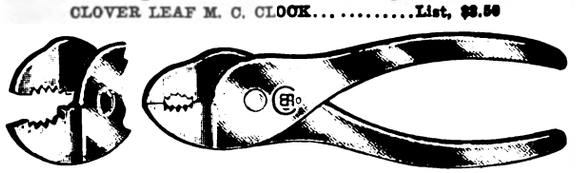


CLOVER LEAF M. C. CLOCK.....List, $3.50



5-INCH PLIERS .....Doz. List, $3.20

REAR GUARD TAIL LAMP...List, $1.50

Luggage Carriers
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If you are an established Dealer ask for Catalog Thirty

THE BECKLEY-RALSTON CO., CHICAGO

MICHIGAN AVE.=RANDOLPH ST.

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"A Chain is as strong as its weakest Link"

No truer saying was ever coined than this. A chain may be beautifully made, in ideal works by skilled mechanics, but—if for one instant only the constant vigilance which is absolutely necessary in the making of chains is relaxed, that chain is **not reliable.** There are no weak links in the

RENOLD CHAIN

because every one of the six thousand operations employed in each chain's manufacture is carefully inspected.

Because integrity of manufacture is the keynote of the success of RENOLD CHAINS.

Because our system of inspection is positively flawless.

Because quality of raw materials in conjunction with skilled and conscientious manufacture make for

RENOLD RELIABILITY

We make 90% of the chains used on foreign motorcycles. But we do not want this fact to influence you solely in your decision. We want to have you learn **why** the discriminating motorcycle manufacturers and riders in England and other foreign countries choose RENOLD CHAINS.

And as the most convincing argument we can put forth is a demonstration of the chain on YOUR machine, we want to send you a set of RENOLD CHAINS. The true test of quality is service and that is where the

RENOLD CHAIN

shines.

You can assure for yourself supreme transmission service by ordering the RENOLD CHAIN of your dealer. If he does not stock RENOLD CHAINS, write us.

Peter A. Frasse Co.

421 Canal Street

NEW YORK

BRANCHES: BUFFALO, PHILADELPHIA.

TRADE MARK

Standard

In Name and Quality

Never has there been a truer saying than the time-worn old adage, "It's the little things that count." And it is the degree of attention paid to these "little things," that determines oftimes the success or failure of a machine to "get across."

Wise manufacturers are equipping with Diamond "E" Spokes and Standard Pedals because they are quality goods—because they reduce the number of repair shop trips for the rider—because farsighted manufacturers realize that a motorcycle's weakest points are its strongest—and it is that infinite attention to detail which bespeaks perfection.

The dealer who looks ahead will stock heavily with Standard Pedals and Diamond "E" Spokes and Nipples. The motorcycles that are not so equipped will inevitably come to his shop for replacements and it is up to him to sustain his reputation for high-grade repair work by fitting Standard parts.

Everyone knows the superiority of Standard No. 3 Pedals, their deep, soft rubber cushions, the interchangeability of the rubbers, and the thousand and one other good features that are not found in other pedals. The feet cannot slip no matter how rough the going. And the perfection of Diamond "E" Spokes is proverbial.

WE WANT TO SEND YOU OUR CATALOG. MAY WE?

THE STANDARD COMPANY

TORRINGTON CONNECTICUT

TRADE MARK

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I THANK YOU

I wish to thank every dealer and rider who visited my booth at the New York show. Those who were unable to call are invited to write for our new catalogue and price list.

Edward B. Kastler

I Have Not Forgotten the Side Car Owners

The Nathan Side Car Storm Apron fills a long-felt want. With it the occupant of the side car can enjoy the most severe weather. It is easily adjusted and has all the necessary means for fastening. Write at once for prices.

Our new catalogue contains descriptions and prices of all styles of leggings and specialties.

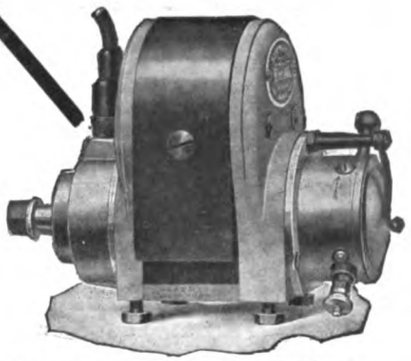
Free on Request.

Price $5.50

NATHAN NOVELTY MFG. CO.

84A Reade Street - - - New York City

This is the new 1913 Model HERZ MAGNETO



Dust-proof Moisture-proof
Highly Efficient

During the entire first week of the New York Automobile Show, a HERZ MOTORCYCLE MAGNETO ran **completely submerged in water.** The same unprecedented demonstration will be repeated at the Chicago Shows.

In breaking all world's records from 1 to 12 miles, at Playa del Ray, Dec. 30, 1912, Lee Humiston used a new model HERZ MAGNETO on his Excelsior machine.

The New HERZ PLUGS are also provided with insulated terminals. The combination of these Plugs with Herz Magneto forms the ideal ignition system.

HERZ & CO.
295 Lafayette Street
NEW YORK

WE SELL EXCLUSIVELY TO DEALERS

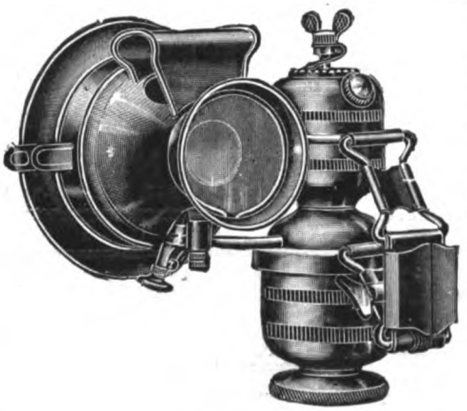
Our strict adherence to the policy of Protecting the Dealer by Not Soliciting Trade From His Customer, has given us pre-eminence in the automobile, motorcycle and bicycle supply field. We are amply equipped to give the **best** in **quality, service** and **price.** Here are Three Stunning Successes Any Dealer Can Handle with Amazing Results.

Musical Signal Horn

The Most Popular Two-Tube Motorcycle Warning Signal Produced. Designed for Efficiency and Service. Nickel Plated, with Bulb and Clamp Attachment. Length, 11½ Inches.

No. 14. Price, $2.00.

Duplex "Self-Lighter" Lamp

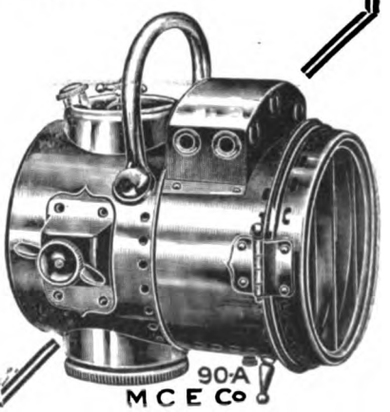


The law in most States requires rear lights on bicycles and motorcycles. The combination Duplex MEETS THIS REQUIREMENT. It lights up the road in front of the rider and also shows a RED LIGHT WARNING SIGNAL in the rear. This lamp is finished in nickel, has a flare-front door 4½ inches across and is fitted with a compact generator 2¼ inches in diameter. Height of lamp 5½ inches. This lamp attaches to fork on left side of wheel.

Price, $3.00 each

Dealers! Get Your Name in for our 1913 Catalog

The Motor Car Equipment Co.
55 Warren Street
New York



An Ideal Motorcyclist's Lamp. A "Close Coupled" Searchlight and Generator Combined. Weighs 28 ounces; size, 4 x 5 inches. Nickel Plated, Neatly Designed. No. 90 rear prop; No. 90A, side props.

Price $6.00 each

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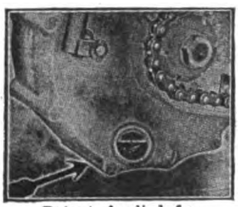


Patent Applied for.

Let Us Send You This Sight Glass Oil Gauge

—AT OUR EXPENSE—

Mr. Harley-Davidson rider! Mr. Excelsior rider, and all the other riders that have no oil gauge on the crankcase of their engine! We have so much faith in our oil gauge that we wish to send it to you at our expense so that you can see it yourself—and then you can decide whether you want one or not. We want you to see the finest crankcase gauge ever put on a motorcycle, a gauge that will show you EXACTLY how much oil you have in your engine ALL THE TIME, and will do what no other one will—IT WILL KEEP CLEAN.

The gauge is handsomely nickel plated, an ornament to any machine, the size of a thin watch, only ⅛ of an inch thick. It screws firmly on the crankcase, is out of the way and won't jar or get knocked off. It will save its cost in oil in a few weeks. It will keep your plugs from fouling. After you have used it a week you would as soon be without your watch. It can be attached in ten minutes with the tools furnished. Do you know that if you have the right amount of oil in your engine you can start easily in the coldest weather?

We Have Lots of Letters Like This

Buck Sales Co., St. Louis:

Gentlemen—I received your Simplex Oil Gauge which is in service now and am very glad in having equipped with it, and I would say every careful rider should have it as it is a most practical and easy thing to put on. I also do not hesitate to advise any rider to get one. Yours truly,

H. UJITA, Menlo Park, Cal.

BUCK SALES COMPANY, 211 North 12th Street, ST. LOUIS, MO.

The Buck Sales Company, 211 North 12th Street, St. Louis, Mo.

Gentlemen: Please send me, without charge or obligation on my part, one of your Simplex Oil Gauges for ..... Motorcycle. If I decide to keep it I will pay the regular price, $1.50, otherwise I can return it without cost to me.

Name .....

P. O. Address .....

Dealer's name .....

THESE TWO DIAMOND CHAINS

can't be beat for motorcycle work. They are right for strength, right for wear, right for satisfactory service in any weather and on any roads. Besides, as any dealer will tell you, the Diamond connecting link, with which they may be lengthened or repaired is the simplest thing of the kind ever invented.

Look for the

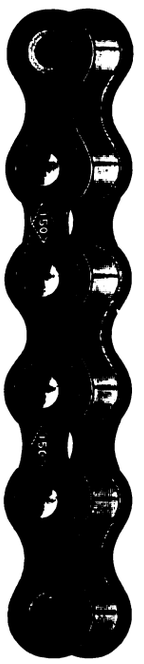
TRADE ◇ MARK

Diamond Chain & Mfg. Co.

227 W. GEORGIA STREET, INDIANAPOLIS, IND.

Capacity 8,000,000 feet per year

SAMPLES SUBMITTED



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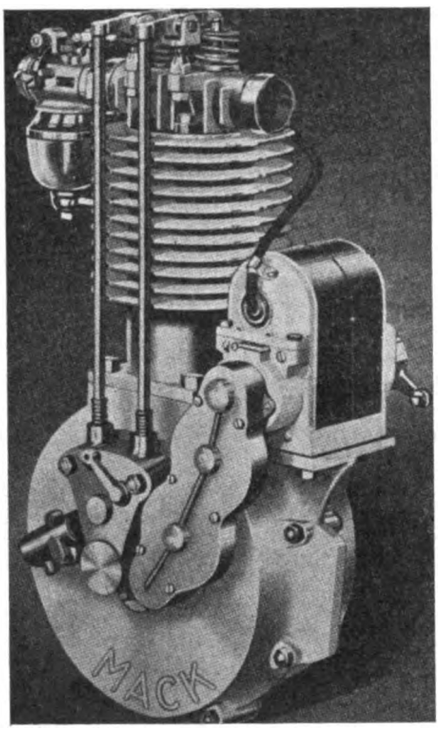
Here's the Motor



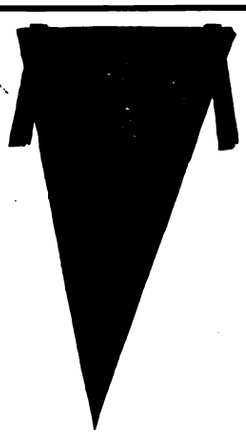
that actually develops more h.p. than that for which it is rated

MACK Motors

Will give what every motorcyclist often feels the need of—RESERVE POWER AND PLENTY OF IT. Illustration shows our MACK single cylinder 5 h. p., 3⅛-in bore and 3 29/32-in. stroke. All valves in the head. Embodies a positive mechanical oil pump, with *no valves*, that actually cuts down the excessive use of oil, yet distributes it in proper quantities to parts where it is needed most. The MACK is guaranteed absolutely to be the best and most powerful motorcycle engine made. We build four types, 4 or 5 h. p. single and 7 or 9 h. p. twin. We are ready for your order. Send for facts.

UNIVERSAL MACHINERY CO.

1915 St. Paul Street MILWAUKEE, WIS.



A FEW WORDS WITH EVERY MOTORCYCLE AND ACCESSORY MANUFACTURER

Do you realize that pennants will advertise your product in the most attractive and efficient manner?

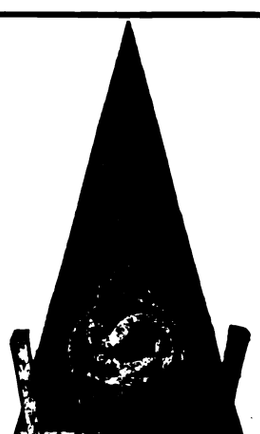
As a Show Souvenir, a pennant is a very desirable little remembrance and one which will never fail to attract attention. Dealers will utilize them as wall-hangers, riders will attach them to their machines or hang them up in their dens.

And you, Mr. Dealer, should appreciate the big business possible with a line of our pennants. We are manufacturers and stand ready to make pennants in large quantities to order on extraordinarily short notice.

We reproduce machines or accessories with lifelike realism. All colors are waterproof and cannot be eradicated.

Write us at once for quotations and send 10c. for sample pennant.

Spiegel Art Company 111 Broadway, Brooklyn, N. Y.



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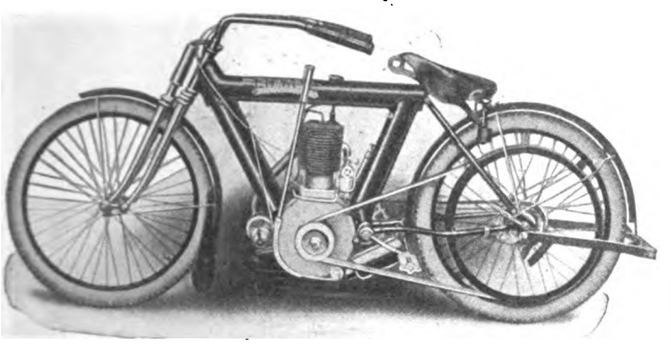
FOR $165! WHILE THEY LAST



PIERCE Motorcycles

5-36 Model, Single Cylinder

(Manufactured by the Pierce Cycle Co., Buffalo, N. Y.)

A rare opportunity. Limited number of these notable motorcycles now offered at the exceptional price of $165.

Magneto ignition. Free engine. Belt drive. Breeze double adjustment carbureter. Double spring fork. Hand grip control. Pierce long stroke motor.

F. A. BAKER & CO.

10 Warren St., and 208 West 75th St., New York.

Distributors for Greater New York and Long Island for Indian Motocycles.

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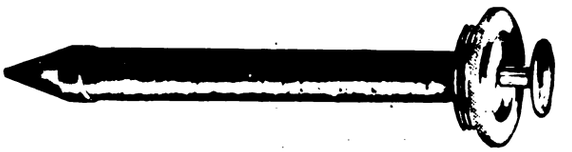

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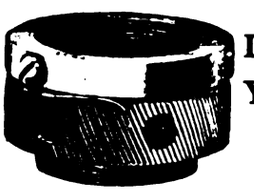

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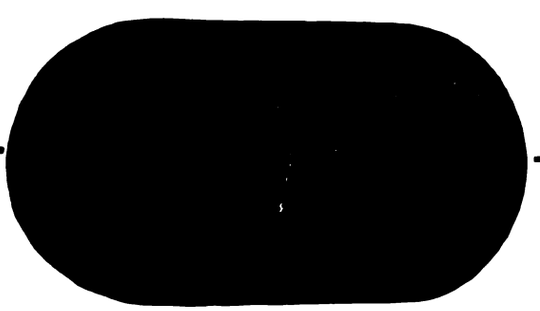

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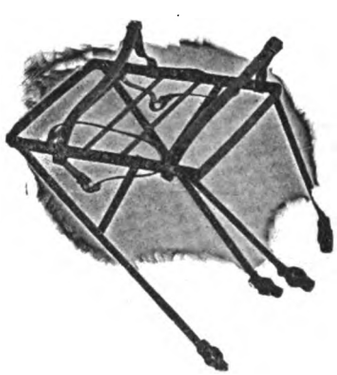

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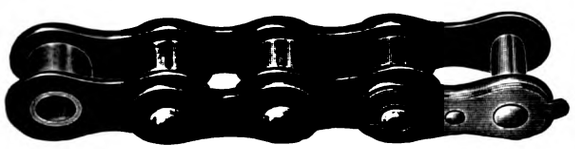

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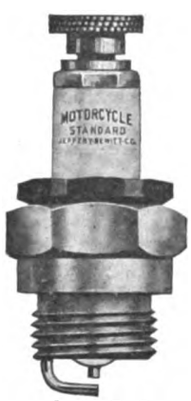

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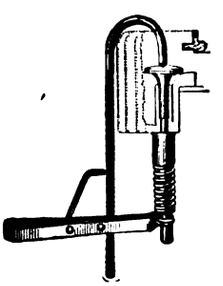

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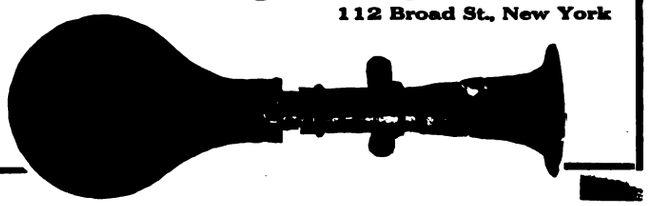

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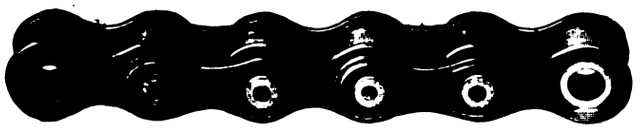

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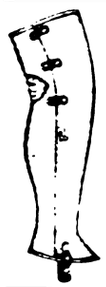

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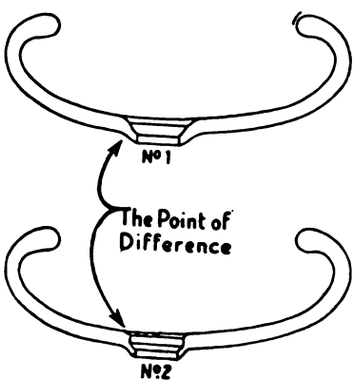

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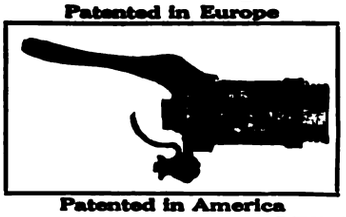

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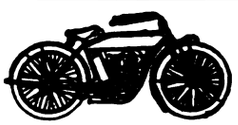

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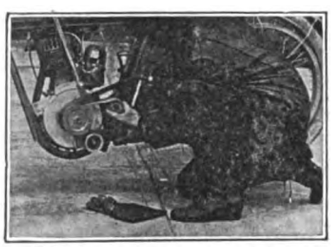

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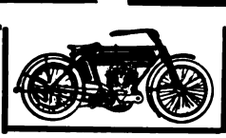

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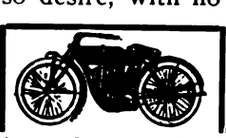

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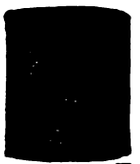

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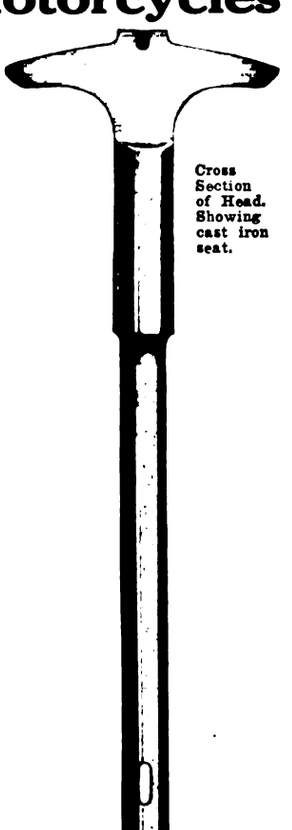

Cross Section of Head. Showing cast iron seat.

The Electric Welding Products Company
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to run through a whole season on an oil that lubricates perfectly, and without having to bother with "fouled" plugs or "carbon" troubles?

HARRIS AUTOIL

WILL GIVE YOU THESE RESULTS.

Try Some At Our Risk for 30 Days.

Have your dealer get you some or send direct for delivered price and Booklet—HOW TO TELL PENNA. OILS.

HARRIS OIL CO. - 620 Mulberry St., Muncie, Ind.

STANDARD BEARINGS

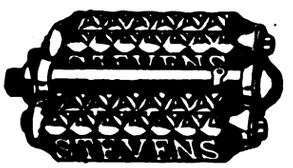
SRB are SRB

Enemies of Friction

Why don't you "Standardize"?

STANDARD ROLLER BEARING CO.

Philadelphia



STEVENS'

Celebrated Motorcycle Pedals AND BLUEMEL'S CELLULOID FRAME PUMPS

The Standard of the World

STEVENS & CO., 375 BROADWAY New York

Filler Hole Gauges for Motorcycles

$1.25

Special Prices to Dealers. Send for Literature.

WEISS MFG. CO.

Torrington, Conn.

IT'S GUARANTEED

1. To increase power 20%; 2. To save 20% Gasoline;
3. To Remedy Carbonization; 4. To Keep Engine Cooler.

You will never know how perfect your Motorcycle can run until you try SPEEDO. Attached in five minutes on intake manifold. Your money is refunded if you are not pleased.

PRICE, $2.00, Including Decarbonizer

See Your Dealer or Write

FULTON-McCUTCHAN COMPANY, Distributors, 1143 Michigan Ave., Chicago

All Sizes and Styles $1

Emil Grossman Co., Mfrs.

254 W. 54th St. NEY YORK

FACTORY AND BRANCH

844 Woodward Av. DETROIT

CYLINDERS

Are our Specialty

(From Customers' Patterns Only)

Also Pattern Work

WRITE FOR PRICES

RACINE FOUNDRY CO., Racine, WIS.

Whipple Special Bargains

1912 Thor White, 5, $175; racing Thor, 4, very fast [from Riverview track], $100; 1912 four-cylinder Pierce, $250; 1910 four-cylinder Pierce, $175; 1912 Harley-Davidson, $175; six h.p. Thor Twin, [magneto], cost $300, $140; 1911, spring frame, Greyhound, cost $225, $100. All above machines in excellent condition; mostly late new ones; slightly used; many others down to $25.

WHIPPLE, The Motorcycle Man

Whipple Motorcycle Bldg. 1227 W. Jackson Blvd.

OASH

for your motorcycle. Nothing too old, nothing too new for us to buy. We will buy one or a hundred. Box 13, Station G. New York City

Mosler Spit Fire Plugs ARE THE BEST

A. R. MOSLER & CO.
P. O. BOX M
MT. VERNON, N.Y.

The New "N. A." BREEZE

Delivers a larger volume of properly mixed gas than any other motorcycle carbureter in the market.

Works Perfectly When Throttled Down to 230 Revolutions Per Minute.

At over 3,500 revolutions it is just as effective.

All air ports have been enlarged.

A perfect mechanical device to increase gasoline supply automatically with the opening of the throttle has been fitted.

Send for free catalog. Our Engine Trouble Text Book, 54 pages, will be mailed for 10 cents.

BREEZE CARBURETER CO., Newark, N. J.

Motorcycle Tours in the United States

350 Routes over the best roads in every State of the Union

56 Pages ***15 cents postpaid***

Reprinted from the Spring Number of MOTORCYCLE ILLUSTRATED, 51 Chambers Street, New York City.

PURDY WHISTLE

"THE WARNING SUPREME"

Lever or Handle Bar Control **Price, $6.00** Discount to the trade

Illustrated Booklet of Specialties Free on Request.

PURDY BROTHERS 937 W. Garfield Boulevard CHICAGO

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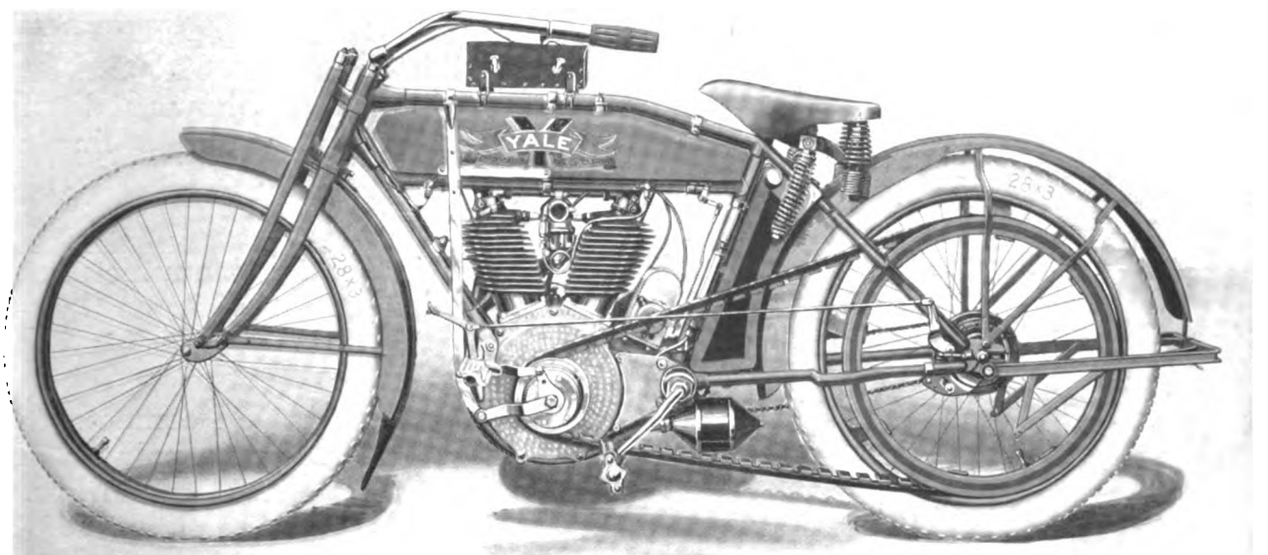
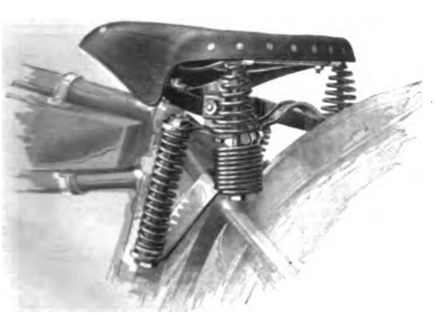
Invest Business Proposition for Dealers



CHAIN SIDE of the Yale 7-8 H. P. twin. This model furnished with either roller chain or big V belt transmission —no flat belt of size small enough for a motorcycle would hold the tremendous power of this motor. All machines fitted with Eclipse free-engine clutch as regular equipment. Quadrant for clutch lever fastened to lower frame bar—no strain on side of tank. New footrests ahead of motor base, with foot lever for operating brake when feet are on rests. Corbin band or Eclipse multiple-disc brake. **$275**



THE Y-A SHOCK ABSORBER—fitted to all 1913 Yales—is the most efficient device made for eliminating rear-wheel jolts. Two big springs take up every road jar, large or small, thoroughly insulating the rider from all road shocks. There is none of the weakness or sideplay that is in every spring frame or spring seat post; no frame joints to wear and destroy correct alignment.

and accurate, skilled labor combine to produce mechanical perfection.

The thousands of motorcyclists, and people who will become motorcyclists in 1913, want just such a machine, and wide knowledge of the Yale insures immense volume of sales for every Yale agent. We are spreading this knowledge by a $125,000 national advertising campaign that reaches over 10,000,000 people. Get your orders in quick for there will be a long waiting list ahead of those who delay.

Yale Agents: Send at once specifications for delivery of 1913 models. Order machines for stock so that you can be sure of having a quantity of machines when you need them. Those who delay will be far down the waiting list.

CONSOLIDATED MANUFACTURING CO., 1730 Fernwood Avenue Toledo, Ohio

Eastern Representative, F. C. Cornish, 219 Clinton Ave., Newark, N. J.
California Distributor, Los Angeles Motorcycle Co., 843 S. Spring St., Los Angeles.

Makers also of Yale and Snell Bicycles, Hussey Handlebars, Brazed Tubing, Bent Parts, and Drop Forgings of Every Description

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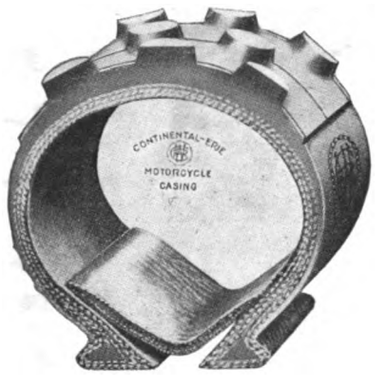
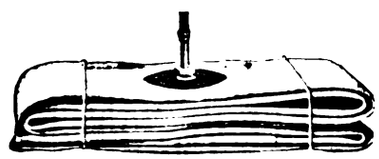
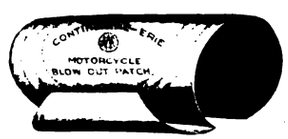
Continental-Erie

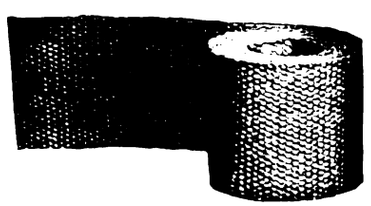




Continental-Erie Motorcycle Tubes



Continental-Erie Motorcycle Blow-Out Patches.



Woven Steel Reinforced Grip
Rubber cut away to show construction.

CONTINENTAL-ERIE

New Southern Hotel, Feb. 3rd to 10...

We will exhibit in parlors 622 and 623 during the Motorcycle Show and will have on exhibition a complete line of our Motorcycle and Bicycle Tubes, Tires and Sundries.

We cordially invite all manufacturers, jobbers and dealers to visit us there.

MR. DEALER:—

Be sure and visit us if you come to the Chicago Show and receive a pair of our New Woven Steel Reinforced Motorcycle Grips, with our compliments.

Also see CONTINENTAL-ERIE'S three big sellers—

Continental-Erie Motorcycle Tires
Continental-Erie Woven Steel Reinforced Grips and Non-Slip-Lag

M. E. Gale rode from Buffalo to New York, during the New York Show, on an Emblem Motorcycle equipped with Continental-Erie Tires.

The roads at this time of the year are naturally very heavy and on the way he encountered ice and rain and came over the roughest of roads, but he reported that he had NO TIRE TROUBLE WHATEVER.

"Continental-Erie Tires are built for service"

CONTINENTAL RUBBER WORKS

ERIE, PA.

NEW YORK BRANCH:
35 Murray Street

CLEVELAND BRANCH:
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CHICAGO BRANCH:
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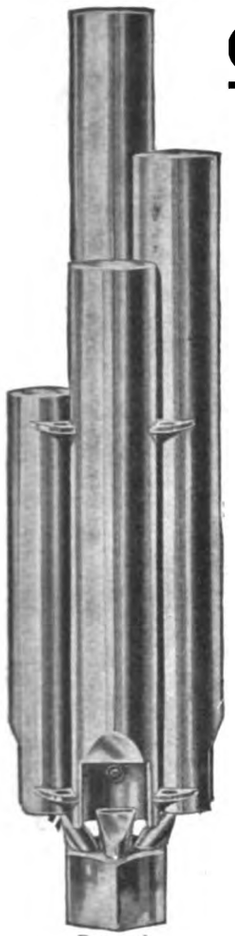

Patented
Jan. 23, 1912
Aug. 20, 1912

Give The Pedestrian A Courteous Warning

The AERMORE Exhaust Horn

—the Horn Harmonious—

This is the only horn in the world whose melodious tones give a sure, far-reaching, courteous warning. The pedestrian is not frightened—does not lose his presence of mind—when he hears the unmistakable warning of the Aermore, distantly signalling your approach. Aermore music gets instant attention and does not startle. There is no raucous "honk" or jarring bell alarm to set the nerves on edge.

The Aermore is especially adaptable to Motorcycles. Thousands of motorcyclists and automobile owners attest their superior service. The Aermore requires absolutely no upkeep. The first cost—**extremely low**—is the last cost. It's the only self-cleaning exhaust horn on the market. It cannot clog or get out of order. All dirt, dust or oil is blown out by the exhaust.

The strength of the Aermore tones can be regulated to give a soft, cheerful warning, or a loud, imperative signal, but always harmonious.

Four sizes for different horse power engines. Prices—$7.50 to $12.00. See them at the Chicago Automobile and Motorcycle show. If you are a dealer, write for our special proposition.

The SABO Motorcycle Lock

The Thief's Worst Enemy

Patent applied for.

Don't wait—until too late. Thieves and joy-riders are stealing motorcycles daily. Get a Sabo lock—a midget in size—a giant in strength. Then you're safe. Sabo locks the machine to the stand. You can't break spokes or drive chain by accidentally pushing machine off stand. Thousands are being used.

Here's Big News for Motorcyclists

The Aermore Manufacturing Company will exhibit the **Rogers Motorcycle Side Car** —a combination pleasure and delivery service —at the Chicago Motorcycle Show.

It's just what thousands have been demanding. As a pleasure car it gives spacious body room—rides as easy as a touring car. Remove the seat and trimmings and it is converted into a package carrier. A Rogers delivery service will build up your business.

It eliminates the objectionable rear seat. **She** can ride beside you and enjoy all the pleasures of motorcycling.

See it at the Show. Study its big features. It's a sure winner for a progressive dealer. Write us and we will send a booklet telling you all about the Rogers.

See All of Them At The Show
The Aermore Horn, Sabo Lock, Rogers Motorcycle Side Car

AERMORE MANUFACTURING COMPANY, 1536 Michigan Boulevard CHICAGO, ILLINOIS

(25)

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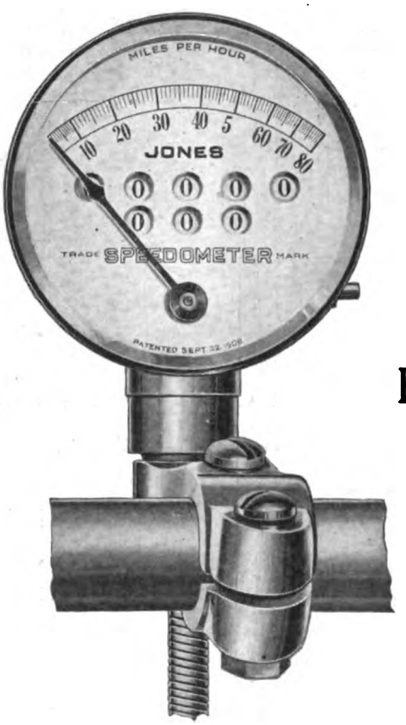

Model 831

Price $20

What Happens in Turning a Corner?

YOU always experience centrifugal force. You demonstrate to yourself practically that speed of rotation and centrifugal force always go together. You cannot have one without the other.

For every speed there is a definite value of centrifugal force. For every centrifugal force there is a definite value of speed. One means the other—both mean the same.

JONES SPEEDOMETER

uses centrifugal force to measure speed—the scientific relation accounts for the permanent accuracy of the Jones. We measure speed by related speed results.

Magnetic speed instruments are not permanently accurate. Magnetism has no relation to speed. Each can be had without the other. Magnetic speedometers convert speed into magnetic energy and magnetic energy into the movement of a dial. The conversion of energy always involves a loss. Temperature variations render the instrument still more inaccurate.

The Jones Speedometer is geared-to-the-truth. No influence can disturb or alter the permanent relation of centrifugal force to speed.

Centrifugal force always tells the speed truth.

THE JONES SPEEDOMETER

Broadway at 76th Street, New York, N. Y.

PLANTS—Bush Terminal, Brooklyn, N. Y.; New Rochelle, N. Y.

Chicago, 1430 *Michigan Ave.*
Boston, 109 *Massachusetts Ave.*
Philadelphia, 1427 *Vine St.*
San Francisco, 530 *Golden Gate Ave.*
Buffalo, 20 *Goodrich St.*
Los Angeles, 1229 *S. Olive St.*
Portland, 329 *Ankeny St.*
Seattle, 917 *East Pike St.*
Detroit, 872 *Woodward Avenue.*

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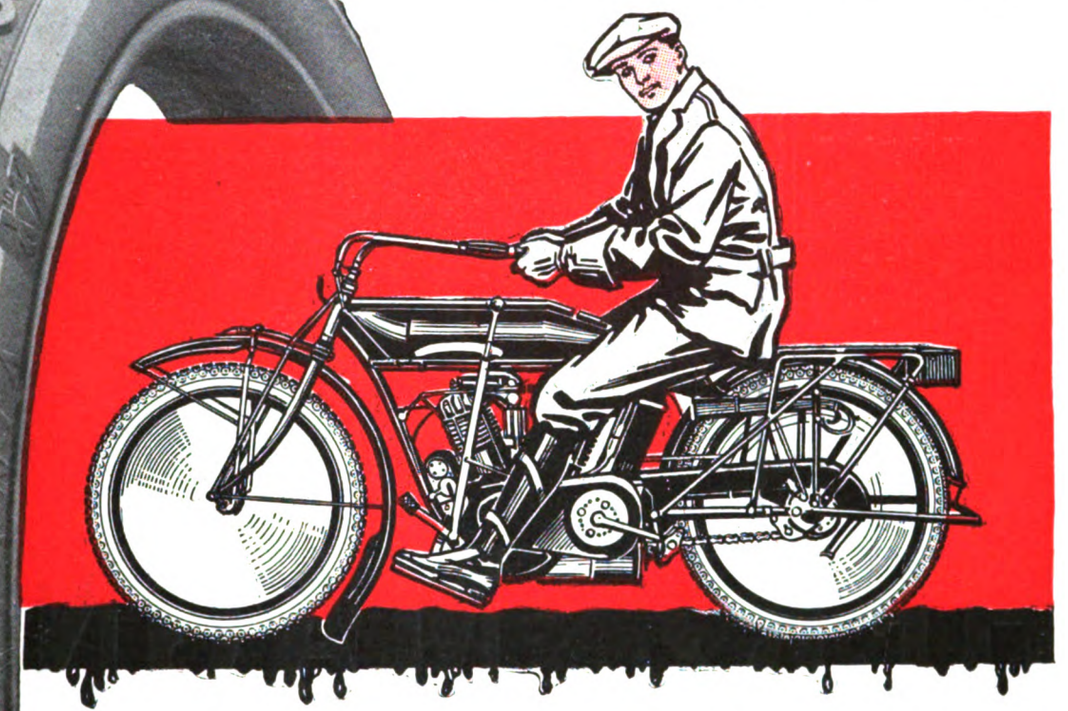
Concerning Your Share of the Two Millions



PENNSYLVANIA Oilproof VACUUM CUP TIRES

For Motorcycles

Experts forecast the expenditure of $2,000,000 for motorcycle accessories during 1913.

By far the biggest slice of this sum will go for TIRES—and the bulk of that to the tires that are plainly THE BEST.

Vacuum Cup Tires now embody the "Big Three" of tire service—Anti-Skid, Oilproof, Long Wearing.

The "Oilproof" feature is the finishing touch. These tires may now be accurately termed **trouble proof. The money expended for oil disease in other tires is put into extra service in these.**

Guaranteed for 4,000 miles service—but good for a far greater mileage with reasonable care.

See that you are the dealer to supply Oilproof tires in your territory. 80,000 new motorcycles will be put on the road this year.

Get In Your Order Early. This Is More Than A Hint

Pennsylvania Rubber Co., Jeannette, Pa.

Pittsburgh, 505 Liberty Avenue
Cleveland, 1837 Euclid Avenue
Detroit, 254 Jefferson Avenue
Chicago, 1004 Michigan Avenue
Minneapolis, 34 S. 8th Street
Kansas City, Mo., 514 E. 15th St.
Omaha, 215 S. 20th Street
Seattle, Armour Building

PENNSYLVANIA RUBBER COMPANY OF NEW YORK
New York City, 1700 Broadway
Boston, 149 Berkeley Street
Dallas, 411 S. Ervay Street

PENNSYLVANIA RUBBER COMPANY OF CALIFORNIA
San Francisco, 512-514 Mission Street
Los Angeles, 930 S. Main Street

An Independent Company with an independent selling policy

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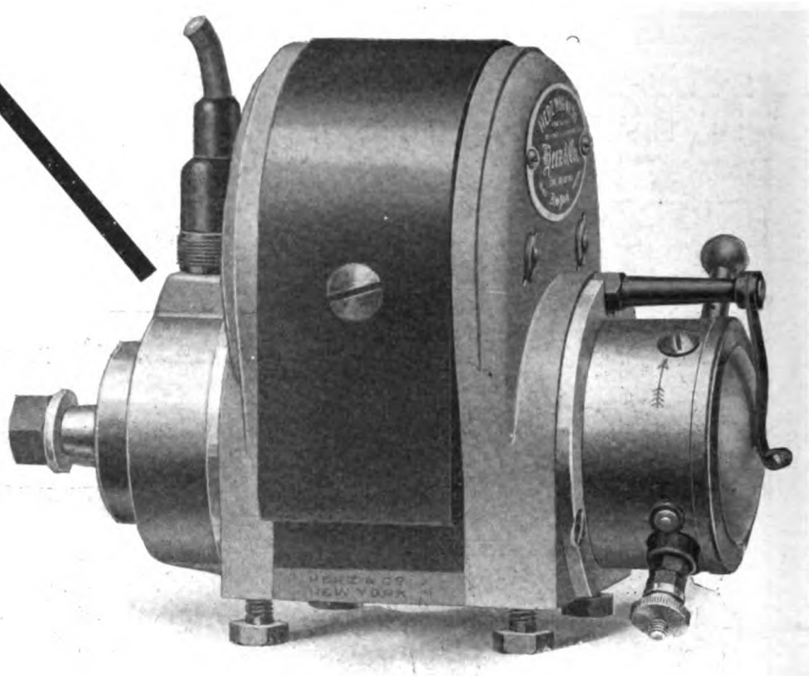
This is the new 1913 Model



HERZ MAGNETO

Dust-proof Moisture-proof
Highly Efficient

During the entire first week of the New York Automobile Show, a HERZ MOTORCYCLE MAGNETO ran completely submerged in water. The same unprecedented demonstration will be repeated at the Chicago Shows.

In breaking all world's records from 1 to 100 miles at Playa Del Ray, Dec. 30, 1912, and Jan. 7, 1913, Lee Humiston used a new model HERZ MAGNETO on his Excelsior machine.

The New HERZ PLUGS

are also provided with insulated terminals. The combination of these Plugs with Herz Magneto forms the ideal ignition system.

HERZ & CO.
295 Lafayette St.
New York

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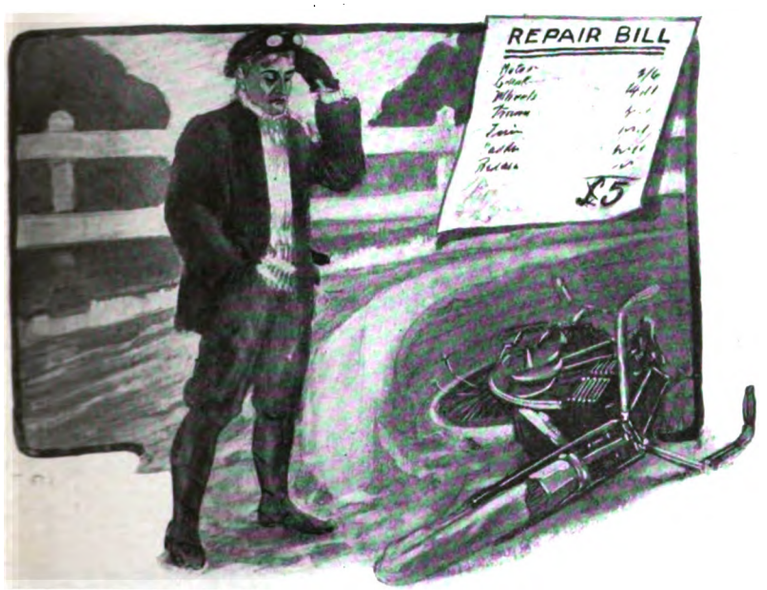
THE MAN WHO USES WEED CHAINS

A Few Ounces of Prevention Is Worth £5 ($25) of Cure



THE MAN WHO DID NOT

Weed Anti-Skid Chains

With the "Creeping Grip"

Give perfect traction, prevent sliding and slipping. Make motorcycling absolutely safe—sixty miles an hour with perfect safety—make all roads good roads.

The continuous "creeping" prevents injury to the tires and keeps them clean, minimizing the chances of punctures.

The secret process of hardening the cross chains, just adopted, gives extreme lasting qualities.

Light and easily carried, as the small bundles they make in their canvas bags take so little room that they could be carried in your pocket, when not in use, without inconvenience.

Order from your dealer or write for full particulars

Weed Chain Tire Grip Co.

28 Moore Street
NEW YORK

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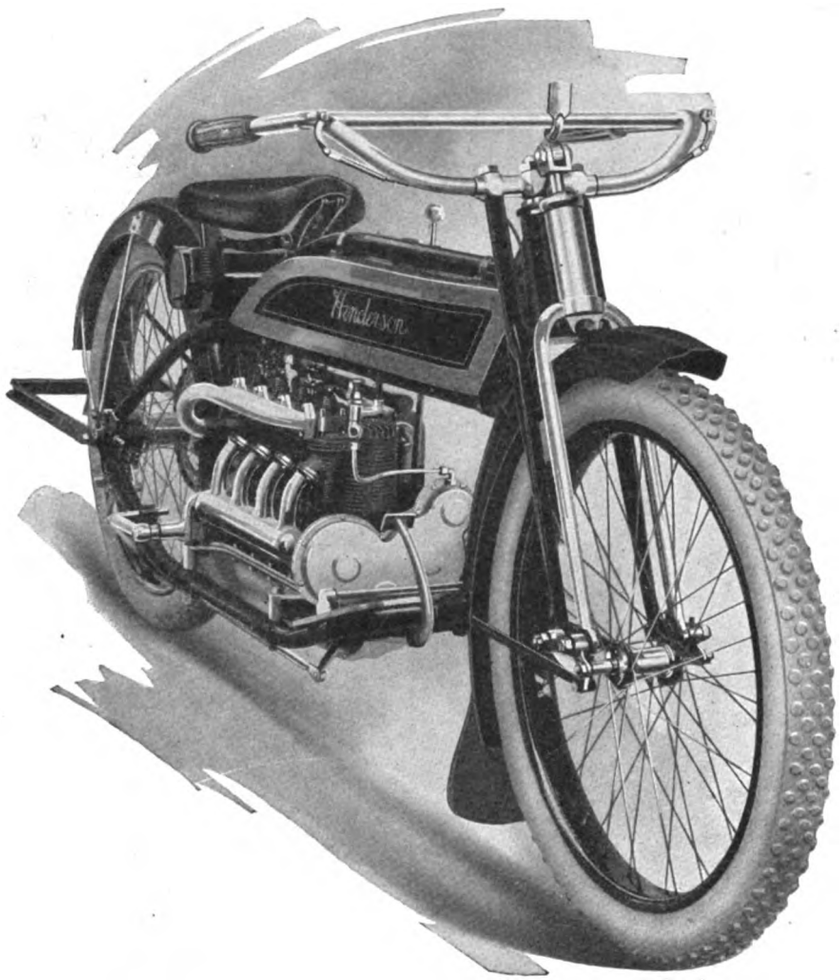
Henderson, the powerful that is displacing



The 1913 Henderson 8-65, 8 H.P., 4 cylinders, free engine, chain drive, $325.

The dealer who is looking out for his own best interest should be interested in the Henderson because it is the most advanced type of motorcycle in existence.

But the fact that should interest him vastly more—a fact that is truly vital in importance—is that the Henderson is actually displacing the ordinary "singles" and "twins."

In other words, buyers who want the greatest power, combined with maximum flexibility and ease of riding and comfort, are naturally turning to the Henderson; because the Henderson is the only motorcycle that offers this combination.

Dealers who have the opportunity should not fail to see the Henderson at the Chicago show; or write us at once regarding their territory.

Henderson Motorcycle Co., 1158 Gass Avenue, Detroit, Mich.

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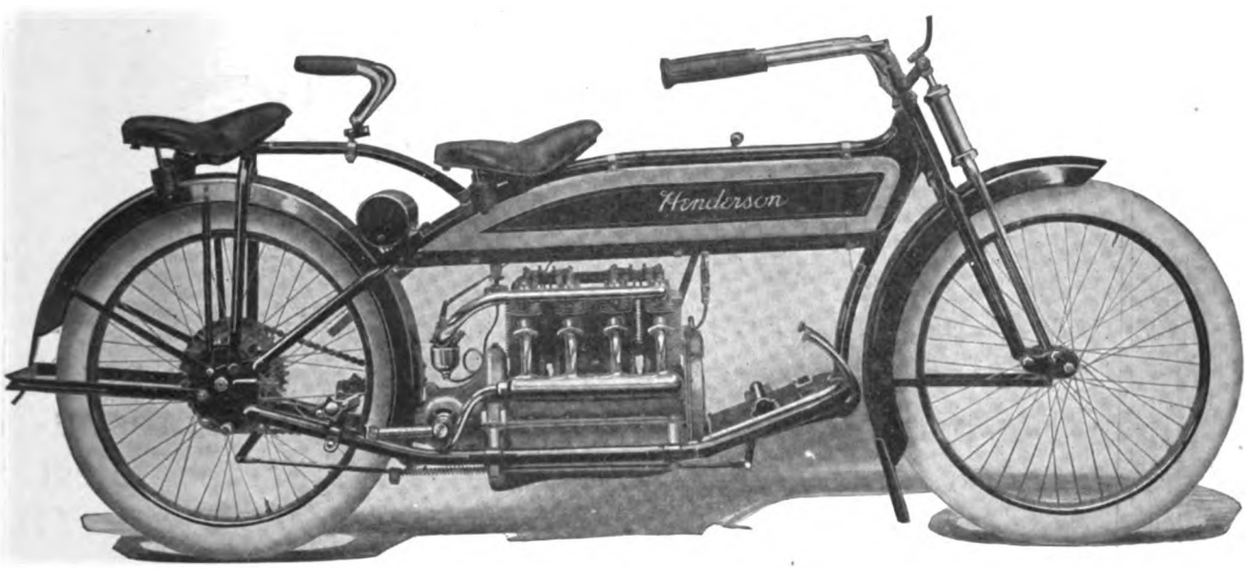
four cylinder machine the ordinary types



Showing the well-placed tandem saddle of the 1913 Henderson.

Note the position of the tandem seat on the Henderson—

Right over the rear axle—comfortable for the second rider, with no overhang or back-lash to unbalance the steering.

This is only one of the Henderson advantages and a powerful one with the buyer.

Add to it the great power of the Henderson, its smooth flexibility, its silence, the absence of vibration, the actual comfort produced by big tires, long wheelbase and low saddle position—and you have a line of talking points that ring true and bring the business.

If business is what you are after, see the Henderson at the Chicago show, or write us.

Henderson Motorcycle Co., 1158 Gass Avenue, Detroit, Mich.

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EXPERIENCE

Is the only Reliable Teacher, and the Practical Experience of Hundreds of riders who have used

MAJESTIC
Side Cars

has taught us all those little things, and many big ones, that go to make a perfect and reliable car. No other maker has had this experience; nor can any other manufacturer give its patrons such assurance of the latest perfecting improvements.

Here is the Handsomest Car in Americo

Steel Drop Forged Attachments

Reinforced Frames

DE LUXE-CURVED FRONT

DE LUXE-CANOE FRONT

Velvet 4 Leaf Springs

Quality Bodies

WE MAKE FIVE OTHER STYLES ALSO A COMMERCIAL CAR

Send for Elegant Free Catalogue

THE MAJESTIC MFG. CO.

36 SOUTHBRIDGE ST.

WORCESTER, MASS.

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SCHAFER BALL BEARINGS

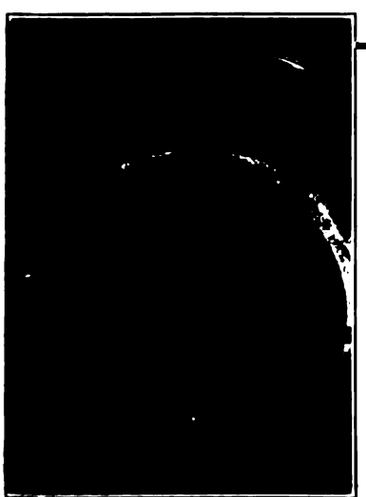
MADE IN GERMANY

Are Used in the Best Motors

Because by actual service they have proven to be of the quality necessary to withstand the shocks and strains which eliminate the use of the ordinary ball bearing.

Schafer Ball Bearings are used exclusively and with great success in the Spacke De Luxe Motors and are also used almost exclusively by the most prominent motor manufacturers in England.

BARTHEL DALY & MILLER, 42 Broadway, New York City



AT LAST

A Perfect Tandem Attachment

The most comfortable and the easiest riding attachment made. It is notable for the following exclusive features:

1. Equipped with *both* compression and recoil springs, absorbing both downward and upward shocks and vibrations.
2. Lowest possible saddle position. Only 33 inches from ground to top of saddle.
3. It is built entirely of cast steel and strongly reinforced at vital points.
4. Has absolutely no side-sway common to most tandem attachments.
5. Equipped with Handlebars, Pedals, Mesinger saddle and Foot Rests. The Foot Rest leg will swivel round on tubing to prevent snapping off in case of a fall.
6. Can be attached in 8 minutes to any make of motorcycle. Detached in 7 minutes.
7. Sold under absolute guarantee for freedom from imperfections.

Retail Price, Complete, $16.00

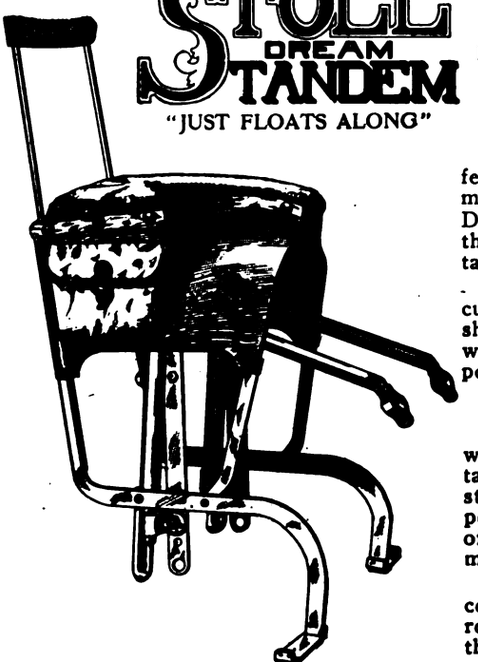
The E. and C. Mfg. Co.

Filbert and 52d Sts., Philadelphia, Pa.

STOLL DREAM TANDEM

PATENTED

"JUST FLOATS ALONG"



A few of the features that help make the STOLL DREAM TANDEM the easiest riding tandem in the world.

Genuine leather cushions gracefully shaped and provided with skirt guard and pockets.

Folding foot-rest.

Rocking motion which allows the tandem to remain steadily in the same position, regardless of the jolting of the machine.

The back-rest combined with the rocking motion give the rider a sense of security and comfort found in no other tandem. Can be raised or lowered instantly while riding.

Send for catalog. Dealers' proposition now ready.
Get in line with the live ones.

THE QUEEN CITY L. & W. WORKS

33rd and Walnut Streets **DENVER, COLO.**

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Mott Rims Protect Me

If They're Mott Rims He's Safe

The rider can attempt these "stunts" with impunity if they're Mott Steel Rims.

For MOTT STEEL RIMS welcome this sort of abuse—it shows the stuff that's in them.

In durability runs, occasions offer where it is necessary to negotiate some bowlder-strewn road. That's where the difference is proven between MOTT RIMS and others of inferior make.

Far-sighted manufacturers are awakening to the fact that a machine's reputation is made or marred by ability to withstand the grinding test of every kind of road and emerge triumphant and without injury. MOTT STEEL RIMS assure this kind of durability in that they combine in the highest degree strength, elasticity and perfection of construction that is flawless.

We solicit manufacturer's specifications.

The Mott Wheel Works

Utica, N. Y.

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ECLIPSE

The Brake You Can Trust

THE unexpected emergencies often met with upon the road demand instant action. Insure your safety and the safety of others by equipping with "THE BRAKE YOU CAN TRUST," the ECLIPSE Perfection Multiple Disc Brake, the most positive motorcycle brake built. It combines the unerring accuracy of a watch with the grip of a bull dog.

This brake is different in design from previous Eclipse Brakes, in fact it is different from any other brake yet made.

The Brake operates on the multiple-disc idea, similar to the Eclipse clutch. The discs are mounted on one side of the hub, instead of inside it. There are six discs 5¼" in diameter.

These give immense braking power, as there are more than 100 square inches of braking surface.

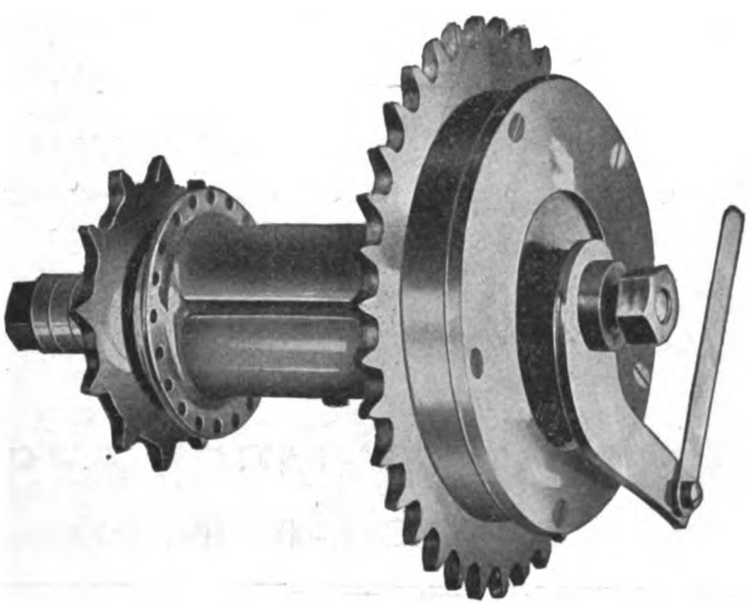
Extreme simplicity is a characteristic of this new brake. It has a very small number of parts, and adjustments are conspicuous by their total absence.

The bearings contain ⅜-inch balls. Lubrication is a matter that will require little attention, for the hub can be packed with hard oil at the start of the season and this supply will last the entire year.

The great working surface and simplicity make this brake fine for heavy service, such as tandem or sidecar work. Big 7 h. p. twins with two riders can be brought to an abrupt halt from fair speed without effort.

Our catalog tells the rest. We will gladly send it to you.

Eclipse Machine Company



Elmira N. Y.

H. T. ROBERTS
Selling Agent
Railway Exchange Bldg.
CHICAGO, ILL.

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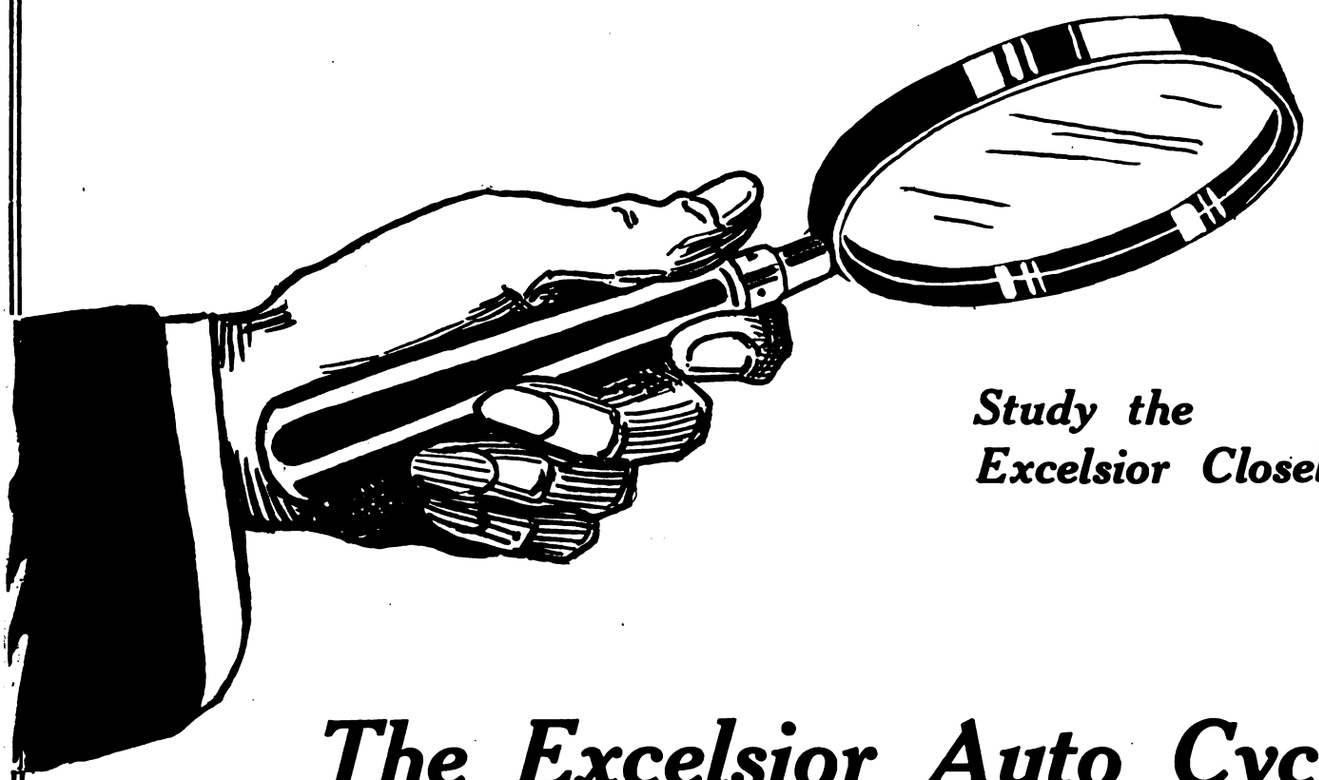

Study the Excelsior Closely

The Excelsior Auto Cycle Is the Machine for You

THE EXCELSIOR AUTO CYCLE has again and again proven its wonderful construction, reliability and standupness by repeated severe tests in endurance and reliability runs, as well as establishing new world's records.

If you want a machine that will give you service twenty-four hours each day, and every day of the year, then you want the Excelsior. Every machine that leaves our factory is thoroughly tested and guaranteed—no blemishes, no comebacks, no kicks.

Write for the EXCELSIOR ART CATALOG. It tells you everything about this wonderful service-giving machine.

No perfection of detail has been overlooked. It is the king of road machines.

Drop a postal quick for our catalog. It's free.

EXCELSIOR MOTOR MFG. & SUPPLY CO.

CHICAGO, ILLINOIS

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The Excelsior is as Flawless in Construction as in Performance

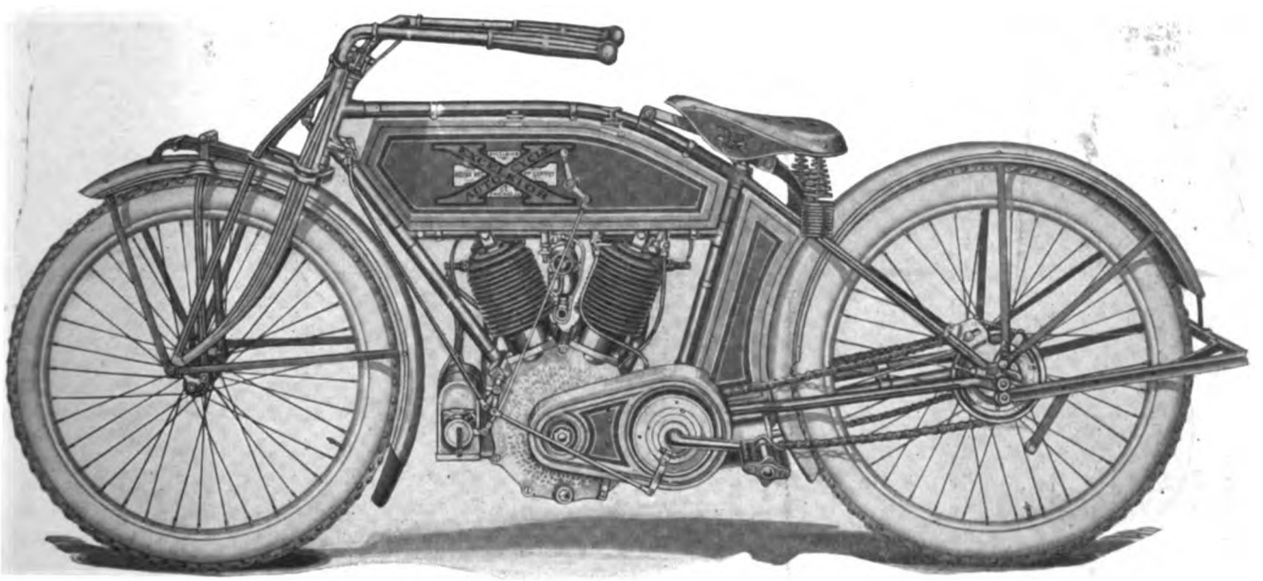
The EXCELSIOR is the first motorcycle to attain the speed of 100 miles per hour. An average of $40\frac{4}{5}$ seconds to the mile for 100 miles.

One mile in 36 seconds flat

5 miles -	$3.07\frac{3}{5}$	50 miles -	$33.55\frac{1}{5}$
10 miles -	6.18	100 miles -	$68.01\frac{4}{5}$

FOUR MODELS

MODEL 7C, 7 TO 10 H. P., $250
MODEL 7B, 7 TO 10 H. P., $250
MODEL 4C, 4 TO 5 H. P., $200
MODEL 4B, 4 TO 5 H. P., $200



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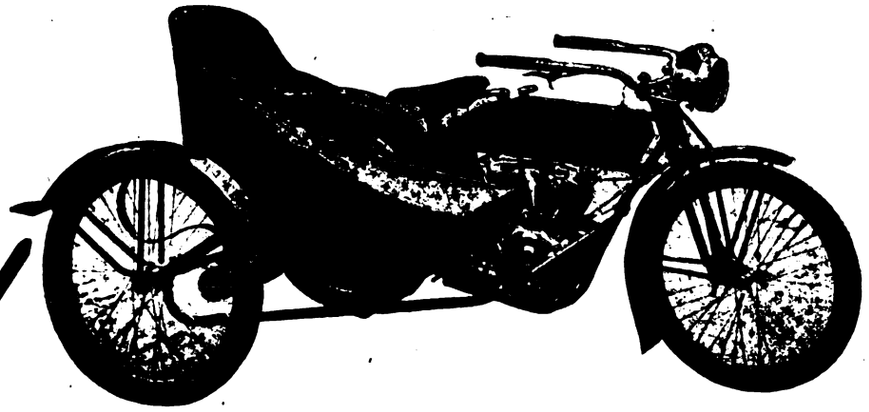
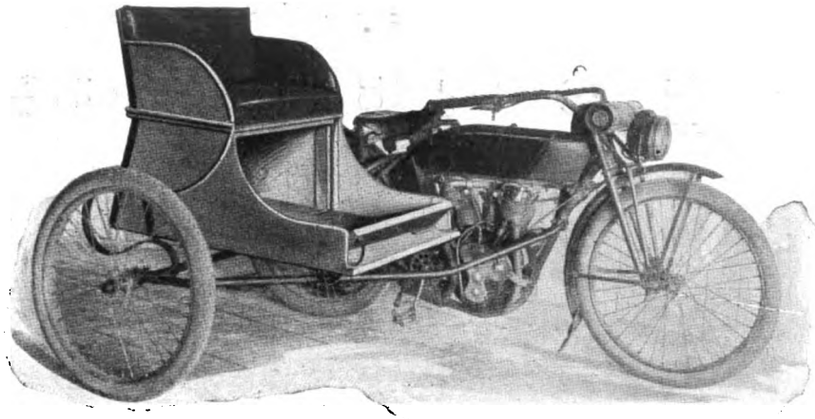




Tho' the Show made us send in a rush order for more order books, we're still able to make immediate deliveries

"ANDERS" SIDECARS

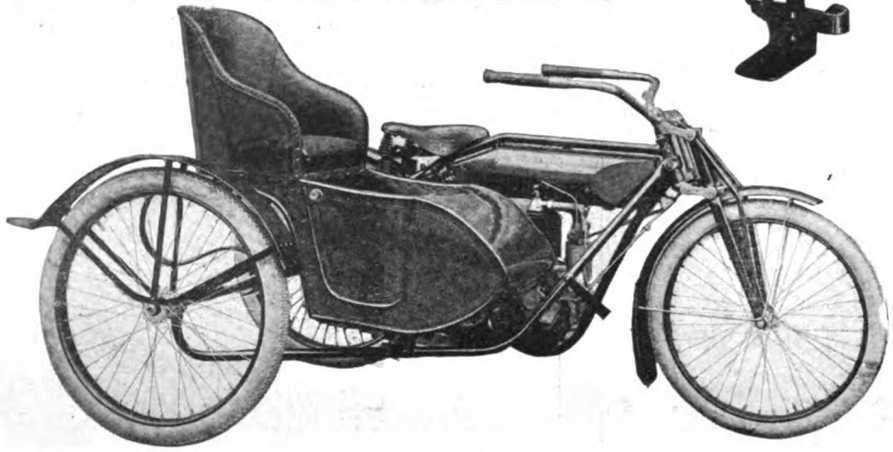
Have the Rocker Motion

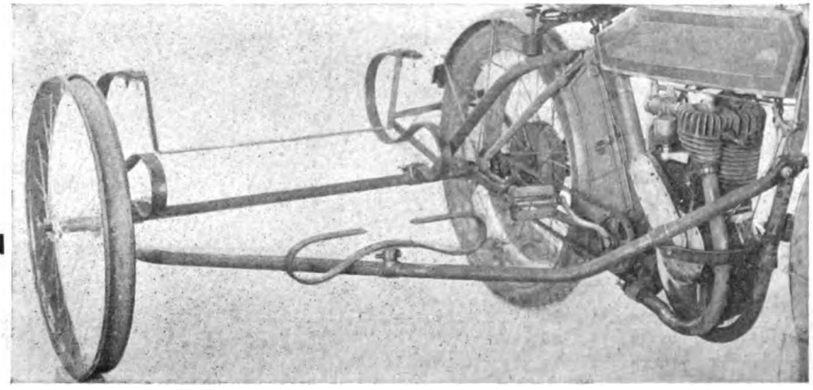
"ANDERS" DELIVERY CARS

Deliver the Service as Well as the Goods

Special Fittings for Cradle Frame, 1913 Indians, also Combination Delivery and Pleasure Cars

NATIONAL CYCLE ACCESSORY CO.
Aurora, Ills.





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As Usual—
Another Merkel Score

Wherever endurance contests are held—in any event where Power, Speed and Durability are factors—heading the perfect score winners you always will find

"The Motorcycle Without A Regret."

In the 232-mile Midwinter Endurance Run recently conducted by the San Francisco M. C., G. P. Douglas, riding a dependable Flying Merkel "7", finished the strenuous road test with highest honors—1,000 points. This despite a fall which compelled him to ride a major part of the distance with an injured shoulder.

Another Endurance Run victory was scored in the Cleveland M. C.'s Midwinter Run when Raymond Ray, Flying Merkel "7", scored perfect.

In 1912 The Flying Merkel won more Endurance Contests than any other motorcycle. In 1913 the Flying Merkel again will demonstrate its right to be called "The Premier Road Machine."

HAVE YOU SEEN THE "4-45 and 7-75 YELLOW JACKET"?

Write for Illustrated Art Catalog just published.

The Miami Cycle & Mfg. Co.
300 HANOVER STREET
MIDDLETOWN, OHIO
MEMBER M.M.A.

POWER

MIAMI

COMFORT

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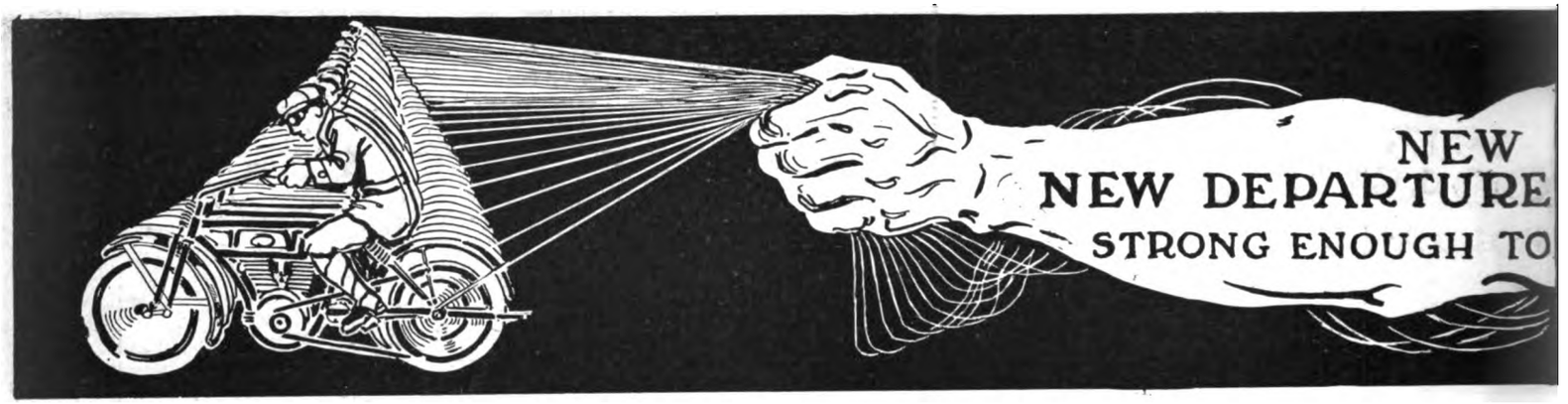
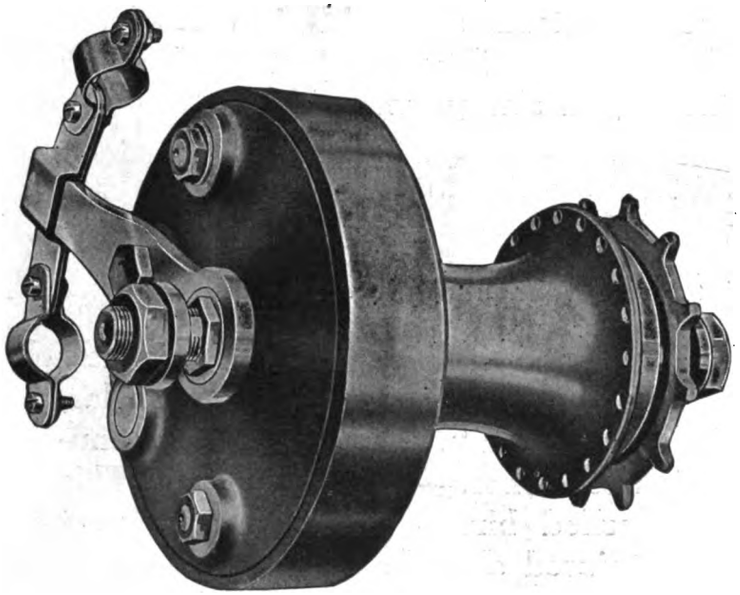


A leading CHICAGO BOOTH



For Belt Drive Machines.

This is the brake that pression with motorcycle riders at the New York motorcyclists have been er powered machines ar lutely from previous mo its design, construction and power is a duplicate of the braking

It is operated by back pedalling. A back pedalling pressure of seventy- a force several times greater than would be necessary to stall the engine, skid the market—a brake of sufficient power to hold and control an automobile. The severe stresses and strains are of best alloy steel, specially treated to intensify coaster brake for bicycles, new 1913 bicycle bells and other cycle sundries, will invited to call. If you cannot get to Chicago, send for fully illustrated, detailed

THE NEW DEPARTURE MFG.
Coaster Brake

BRAKE PERFECTION GUARANTEED

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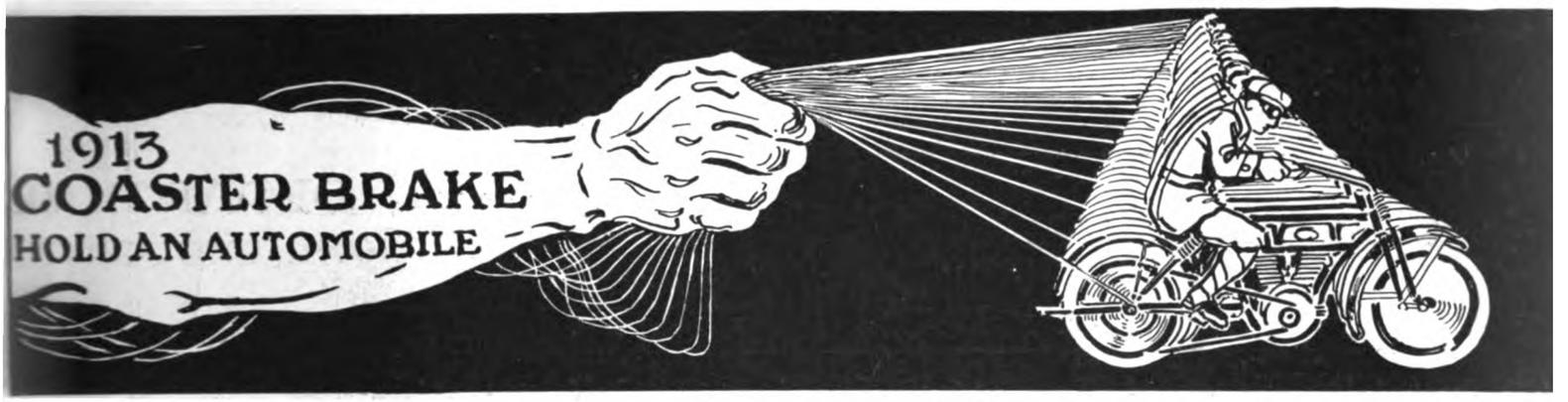
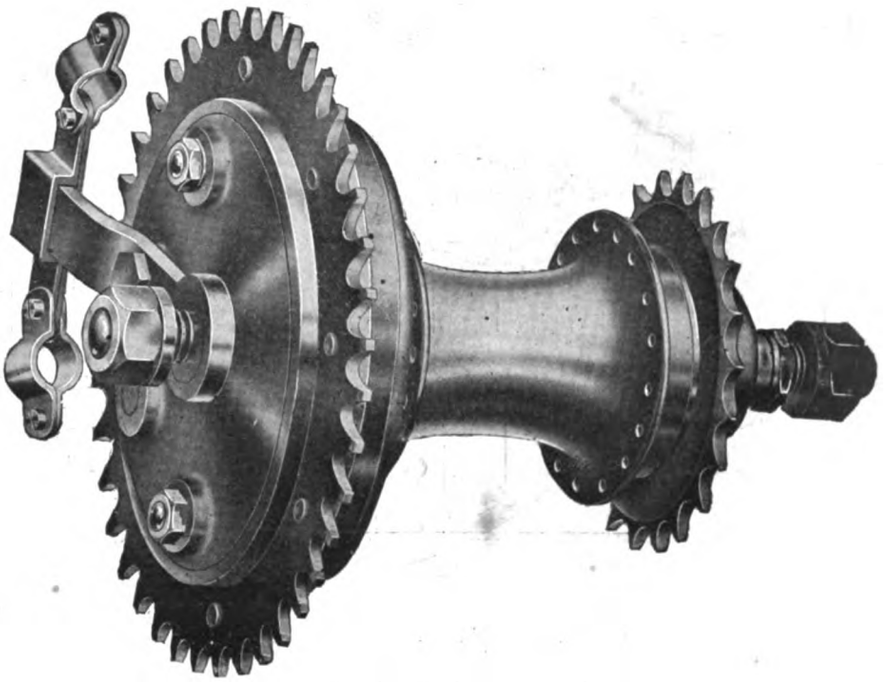


feature of
S H O W
NO. 60



For Chain Drive Machines.

made so favorable an im-
manufacturers, dealers and
Show. It is exactly what
calling for since the high-
rived. It departs abso-
torcycle practice and in
mechanism successfully used on automobiles for many years.

five pounds results in a retarding force of *a ton and a half in the rear wheel*—
wheel or absolutely halt a motorcycle of twice the horse-power of any now on the
parts are few, simple and of the greatest possible strength. All the parts sustaining
strength. This new model, together with the improved 1913 New Departure
be demonstrated at the Chicago Motorcycle Show, Space No. 60. You are
description of this brake.

CO., Bristol, Oonn., U. S. A.
Licensors

BRAKE PERFECTION GUARANTEED

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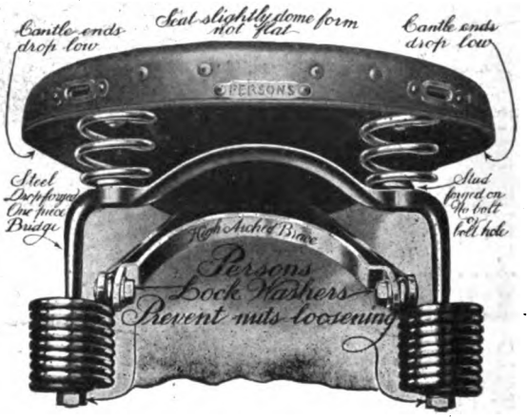
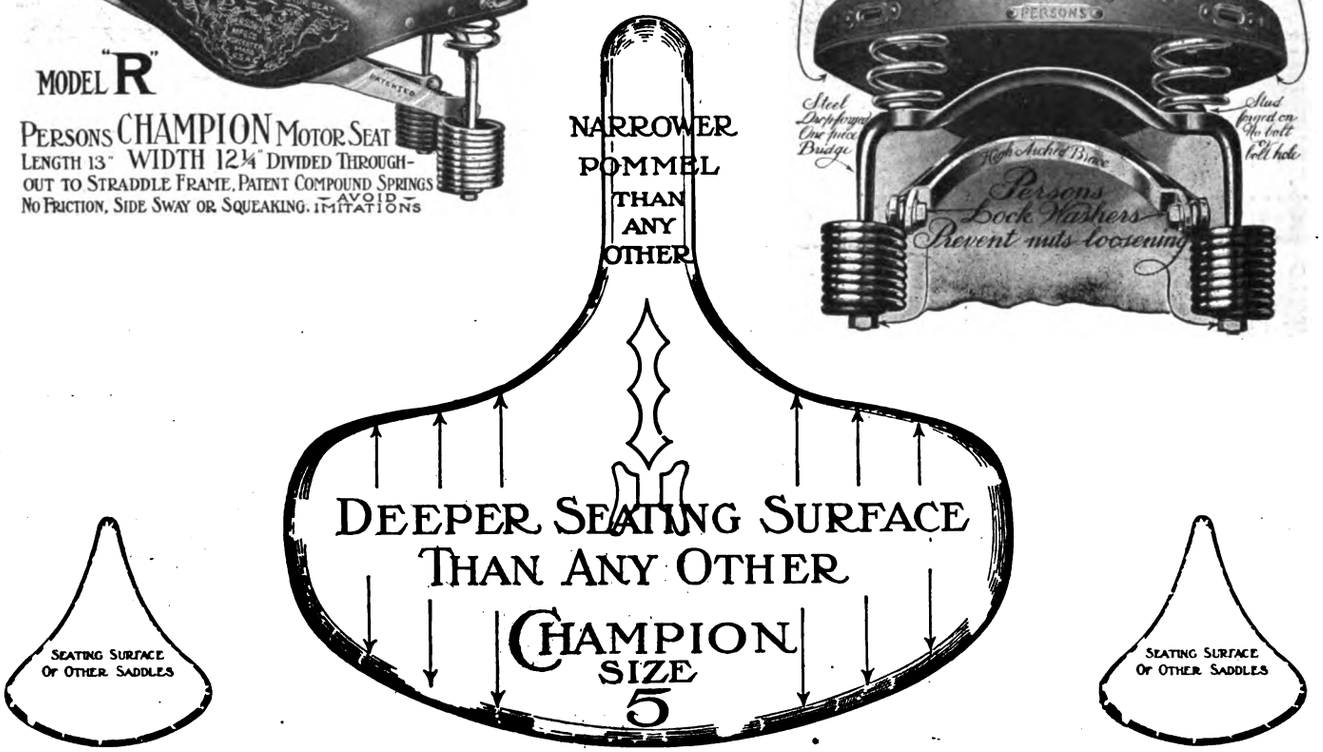
IN "A FAIR FIELD AND NO FAVOR"





QUALITY REIGNS SUPREME!!

Why are they paying more for PERSONS CHAMPIONS than for imitations? Because

THE VALUE IS THERE

Value in EXPERT DESIGNING, QUALITY OF MATERIALS, CHARACTER OF WORKMANSHIP.

Study the outline of the top of a PERSONS CHAMPION and compare it with others. Then Specify CHAMPIONS on the Excelsior, Harley-Davidson, Thor, Dayton, Reading-Standard, Pope, "A M C", Emblem, Henderson, Merkel, Iver Johnson, Yale, Fielbach Limited and some other Quality Machines. SPECIFY PERSONS.

THE PERSONS MANUFACTURING COMPANY

The Oldest Makers of the Newest Motor Seats in America

WORCESTER, MASS.

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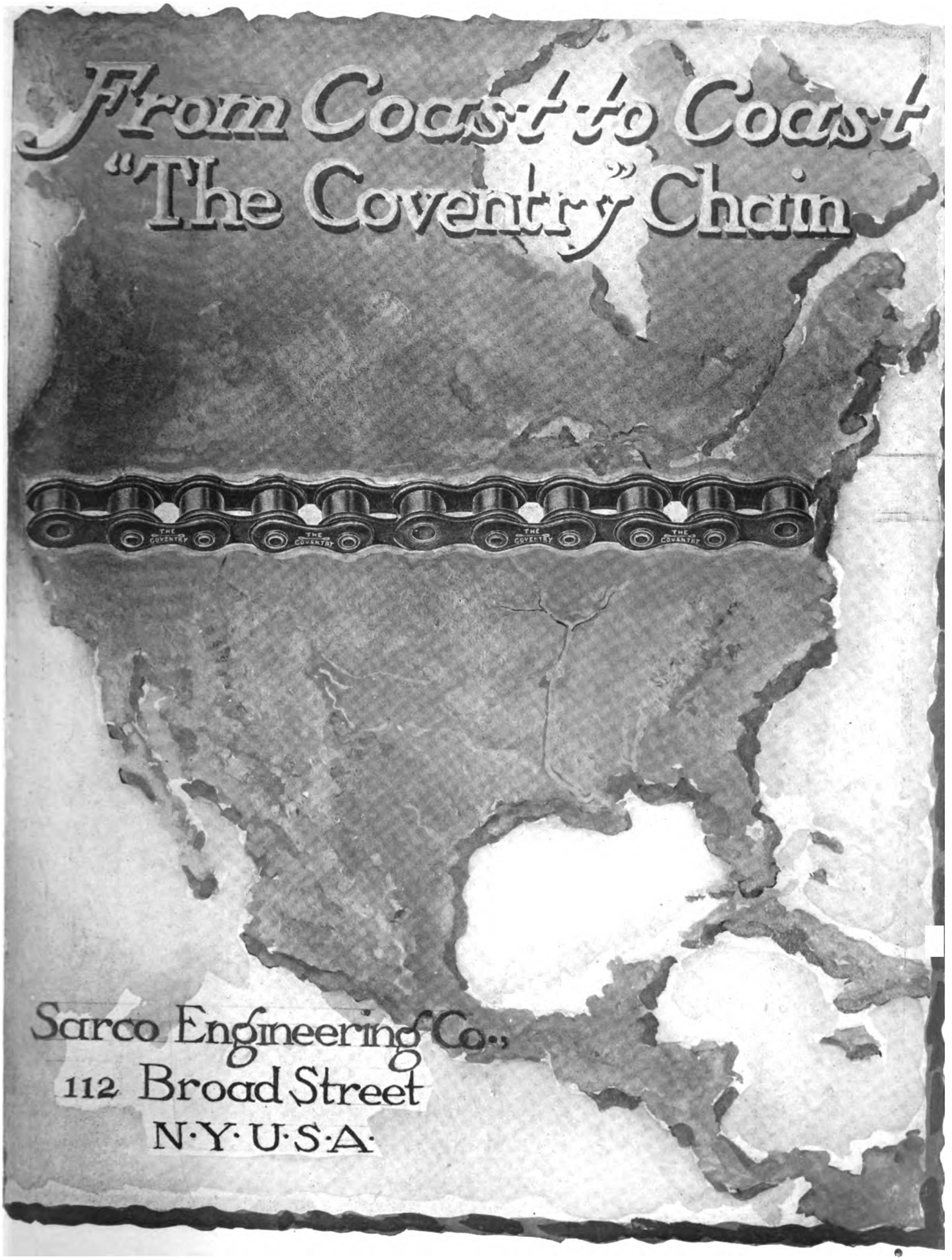

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The Monarch's Claims for Power, Quality Construction, Correctness of Design and Perfection of Finish are Upheld by the American Society of Automobile Engineers

A committee from the American Society of Automobile Engineers, after a careful examination of every machine displayed at the Shows, adjudged the Monarch motor one of the three most perfect, from the standpoint of excellence of design and perfection of finish.

This decision does not surprise us in the least, for we **know,** as does every Monarch rider, how absolutely flawless is the Monarch power plant.

But—Monarch excellence does not end there. Every detail of the Monarch's construction is in keeping with the standard set by the Monarch motor. Its every detail makes for a surplus of efficiency.

Comfort is another powerful feature of the Monarch. The Monarch Leaf Spring Suspension Saddle solves the comfort problem for every Monarch rider. Its perfect bottomless action affords a riding ease obtainable in no other way. It is the only successful and practical application of the leaf spring to a rigid frame, the only safe framework for withstanding the motor's vibration and the never-ending impact of the road.

The Monarch has been before the public but one season thus far. But it is an "old-timer," in that it is a composite type of every desirable feature possible to include in a motorcycle. Its makers are men who have not hesitated to profit by the example and experience of others. They have taken for their models the most successful types of machines, both American and foreign, and have added to this their own ideas.

When writing to advertisers, please mention MOTORCYCLE ILLUSTRATED.

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That we have been successful in producing a really superior machine has been proven first by the thousands of enthusiastic letters received from riders and dealers, commenting on both its exceptionally perfect service and its easy-selling qualities, and finally by the endorsement of this supreme authority on internal combustion engines, the American Society of Automobile Engineers.

We make two models, one a "Big Single," 5 H.P., selling at $225, and the other the twin, shown here, at $275. The single has the power of the average twin. The Big 10 has the power of—oh, well, you'll never have to "open her wide." It's **the** machine for hill climbing, sidecar work and long distance tours.

Let us send you our catalog. It will be of tremendous interest to you—we guarantee that.

IVES MOTORCYCLE CORPORATION

OWEGO, TIOGA COUNTY NEW YORK

DISTRIBUTORS

Lowe Motor Supplies Co., 1727 Broadway, New York City. John W. Grove Co., 624 Liberty avenue, Pittsburg, Pa.
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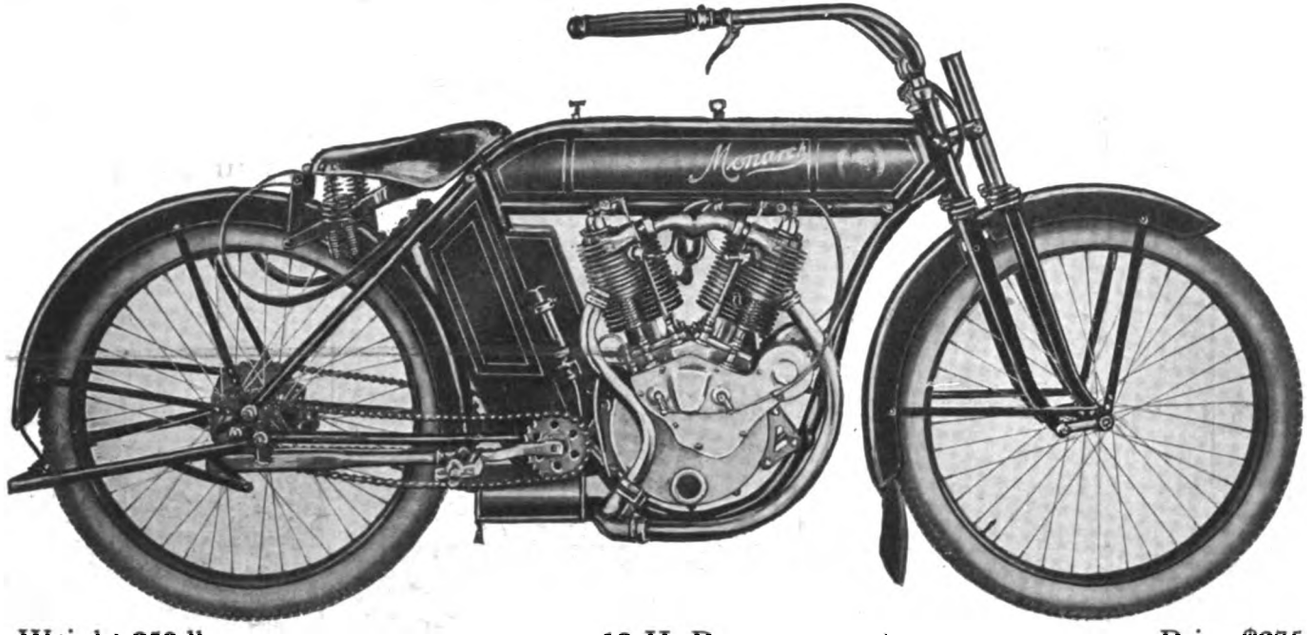

Weight 250 lbs. **10 H. P.** **Price $275**

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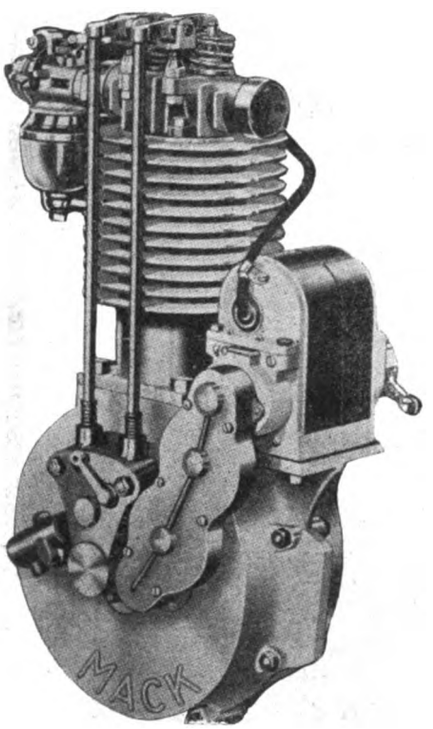
MACK

"THE MIGHTY MOTOR"

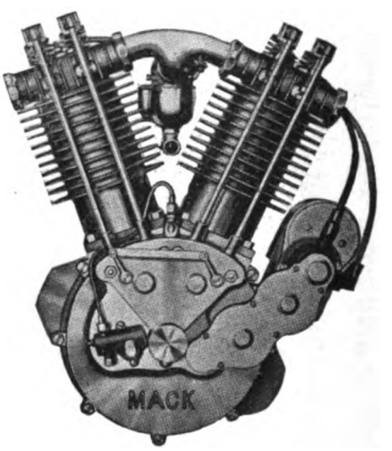
4 and 5 H. P. Single—Interchangeable
7 and 9 H. P. Twin—Interchangeable

In building the MACK, we have made no radical departures from the accepted type of motorcycle motor. In appearance, the MACK is similar to the majority of popular motorcycle motors. But in three points we emphatically claim **indisputable superiority** for the MACK. These are—QUALITY OF MATERIALS—METHOD OF CONSTRUCTION and POWER.



MACK Motors are made of drop-forged special alloy steel. The most powerful automobile motors are made of this material. Imported annular ball bearings support the crank shaft. Aluminum crank case absolutely oil-tight. High nickel finish on cylinder and small parts.

The problem of replacements is one which has been seriously considered by us. Every part on MACK motors is micrometically measured and all parts are interchangeable. The rider will readily appreciate the convenience of this method.



Unexcelled power is afforded by overhead valves, preventing overheating and assuring a sufficiency of reserve power for all occasions. A recent test of a MACK single was the negotiation of a 22½ per cent. grade with a 600 lb. weight. The MACK did it with ease.

Another special feature is the positive mechanical oil pump. There are no valves to become dirt clogged and in action the pump is positive in delivering the oil to the proper places.

Take each part of the MACK separately and you will find in the minutest detail that pride in workmanship, that evidence of keen inspection and conscientious labor that always distinguishes masterpieces of manufacture.

WE ARE READY TO MAKE 1913 DELIVERIES.

The Universal Machinery Company

1913 St. Paul Ave., Milwaukee, Wis.

A. B. Coffman, Sales Representative, No. 6 Glenwood Court, Toledo, O.

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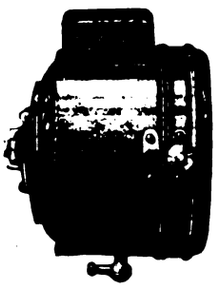
The Victor Family

"For every rider's taste and for every rider's purse."

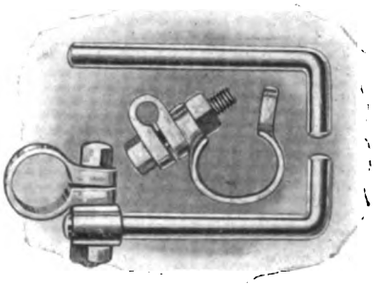
That is a concise description of the Victor Lamp family. For perfection of finish, unparalleled durability and tremendous efficiency, Victor Lamps shine in more than one sense of the word. First and foremost comes the pioneer of them all, the famous X-Ray, for which we received orders for over 40,000 at the Shows. And close upon its heels come Old Reliable, Tourist and Indian, making a quartet absolutely alone in their class. We want to enlighten every dealer who "is in the dark" on the lamp question, and the first ray of light will come from our catalog. Get it.

Old Reliable.
Front meas., 8¼ ins.
Body, 6½ ins.
Genuine Mangin Lens, 6½ ins.



The Indian.
Body Diam., 5¾ ins.
Size of Mirror, 5½ ins.
Depth of Body, 5½ ins.
Heavy prop on back for Indian Bracket.

The Tourist.
Body Diam., 5¾ ins.
Depth of Body, 5½ ins.
Size of Mirror, 5½ ins.



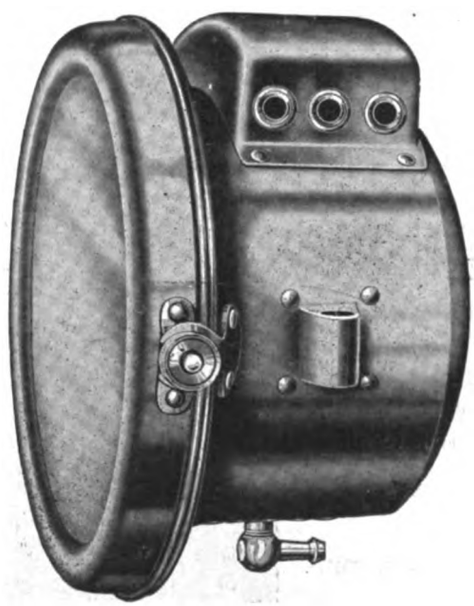
Morse Universal Bracket

A pair of these brackets will fit any motorcycle handle bar and accommodate any standard lamp on the market. All parts are drop forged and highly finished. This bracket is a great boon to jobbers as it will take the place of an assortment of possibly twenty different styles of motorcycle lamp brackets. List price, per pair, $1.50. Packed one in a box.

The X-Ray

The X-Ray Motorcycle Lamp has been produced to meet a demand for a strong, substantial and handsome lamp at a popular price. There is no lamp on the market as securely put together, as modern in design, or as popular in size and price.

The fact that in the first sixty days we have contracts for over 40,000 of them is evidence that the X-Ray Motorcycle Lamp will for 1913 be the standard.



The Father of Them All

Construction: Drawn in one piece from 20 Gauge Sheet, all parts securely riveted. Extra heavy catch and hinges. Cast props, inside screw fastened and securely riveted. Genuine Ground Mangin 5 inch Mirror, removable, secured with screwed-in steel lugs and backed with asbestos. Gas tip adjustable to focus.

Dimensions.

Front Diameter, 8 ins.
Body Diameter, 6 ins.
Props—Centers, 6⅜ ins.
Depth of Body, 6 ins.

List Price $6.00
Extra for Morse Universal Brackets 1.50

The Victor Lamp Co.

Cincinnati, O.

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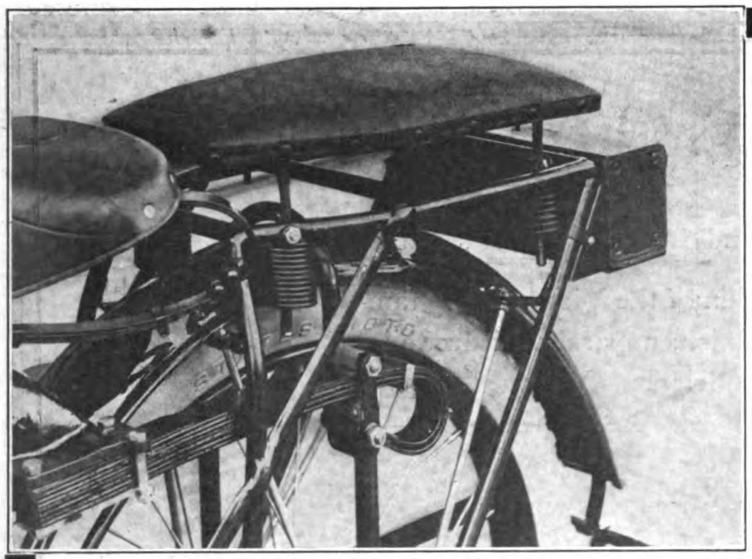


Indian Dealers and Riders

The JENCO CARRIER

is positively the easiest riding and finest upholstered carrier on the market. Tension of the springs is perfect. Adjustable to weight of person.

No Side Play

Clamped onto Indian carrier in two minutes by any one. Made to fit Merkel carriers, also. This upholstered top is designed to make it interchangeable with the steel top.

Price Complete, $4.50

Very Best Oil Obtainable

purchased in car load lots, therefore these prices per gallon:

½ gal. cans	$0.45
1 gal. cans	.75
5 gal. cans	.60
½ bbl. steel	.55

Heavy or Light.

Largest Exclusive Motorcycle and Accessories Building in the U. S.

We have the largest and best exclusive Motorcycle and Accessories building in the United States and carry a stock which enables us to give you the very best service possible. We buy everything (that we do not make ourselves) in the largest quantities and are able to make the best prices on everything. Ask for one of our new, up-to-the-minute catalogs.

Prices Lowest

JENKINS & CO.

DES MOINES IOWA

The Jenco Spring Carrier

made to fit all machines, and is most beautifully nickeled and is made of very best materials throughout. Absolutely no side play. Tension of springs is right.

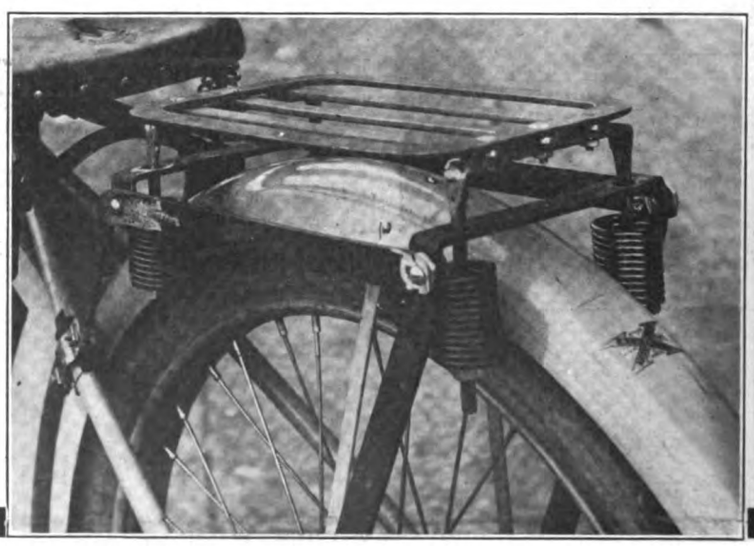
We guarantee our carriers.

Our carriers have foot rests. Order one.

This steel top designed to make it interchangeable with the upholstered top shown on Indian.

Price, $6.00

Will furnish genuine leather pad made to exactly fit carrier top for one dollar.



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The New Light That Is Making a Big Hit at the Chicago Motorcycle Show

A big, powerful, never-failing electric lighting system. First successful application of automobile lighting principle to motorcycles. Burns whether motorcycle is moving or standing still. Steady, no flickering. Gives daylight path on darkest night. Same current runs headlight, tail light, electric horn and lights the speedometer. Nothing to clean. No matches. Supply never gives out. No disappointment or annoyance.

The New Lite is a new system of motorcycle lighting. Different from anything you ever tried. The final achievement in motorcycle lighting. Unconditionally guaranteed.

Made in Three Types

Straight storage battery and lights, automatic dynamo and lights or storage battery and dynamo combined, with lights. Special lamps and fittings for all machines. The New Lite system is in no sense a toy or an experiment. It is a new invention carefully worked out by a practical electrical engineer and is destined to revolutionize the present unsatisfactory system of lighting motorcycles.

Let Us Mail You Descriptive Literature or See This Wonderful System for Yourself at Our Exhibit Here, Space 70

Big Opportunity for Dealers

We want one dealer agent in every town for this new proposition which is being extensively advertised. If your town is still open write at once, as we have a dandy proposition.

Jenkins & Co., Sales Agents
Des Moines, Iowa

New Lite Manufacturing Co.
1200 New Lite Bldg., Newton, Iowa

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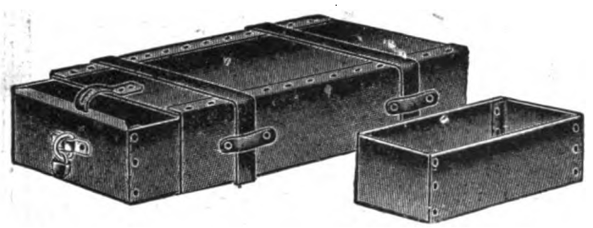
One of Our Many Specialties



LOWE TOURIST KIT

"BUILT TO STAND HARD KNOCKS"

14 INCHES LONG
8 INCHES WIDE
4 INCHES DEEP
} COMPLETE WITH LOCK AND KEY AND TWO HEAVY STRAPS.

"BIG ENOUGH TO HOLD EVERYTHING"

DID YOU EVER?

DID YOU EVER sprinkle the road behind you with your tools because the stitched seams of your kit had opened?

DID YOU EVER find your extra inner tubes full of holes from contact with your other tools, or eaten with grease?

DID YOU EVER spend half an hour undoing the straps and cords that hold your tool-cases in searching for a much needed tool?

DID YOU EVER find your tools all rusted and ruined because your tool-case was not waterproof?

DID YOU EVER want to carry a few needed spares and not have room for them?

DID YOU EVER want to carry a clean collar, a comb and brush and a raincoat and keep them **clean** until needed?

Perhaps you have suffered from some of these ailments

WE OFFER YOU A CURE

A LOWE TOURIST KIT WILL PREVENT ALL OF THESE TROUBLES AND LOTS OF OTHERS TOO NUMEROUS TO MENTION.

FITS ANY LUGGAGE CARRIER

THIS is a strong, indestructible, waterproof case of imported fibre, containing a sliding drawer of same material. Put together with **steel** rivets—no stitches to break in the seams and cause the loss of tools, as in leather cases.

It will be noted from the illustration that our method of fastening the case permits the drawer to be opened and contents exposed to easy access without the necessity of touching the straps.

An extra removable compartment of imported fibre for holding two inner tubes free from damage by contact with tools, etc., is furnished to fit the drawer and will be found invaluable for this purpose.

The material of which this Kit is manufactured cannot be injured by falls or rough usage and we guarantee its wearing qualities.

A strong feature of this case is its lightness, as it weighs less than the smaller leather tool bags now in use.

In brief, we offer you in this article, not a toy, but a **substantial, roomy luggage carrier**, such as motorcyclists have needed for years, and which will be an ornament to your machine.

Order today—we'll ship tomorrow. Prepaid on receipt of price.

Price—$4.00 Complete

Made in colors to match your machine for 25c. extra.

DEALERS, WRITE FOR CATALOGUE AND PROPOSITION.

LOOK FOR ***THIS MARK***

LOWE MOTOR SUPPLIES COMPANY

1727 Broadway **New York City**

YOU CAN'T "GO THROUGH"

a pair of Grinnell **"Grip-Tite"** Gloves with the same costly wear and tear that you "go through" **ordinary** gloves. Grinnell Gloves have **always** been popular with motorcyclists, for their unusual, smooth-fitting comfort, distinctive looks, long wear and finger freedom **flexibility—but now**; the

Grinnell

Grip-Tite

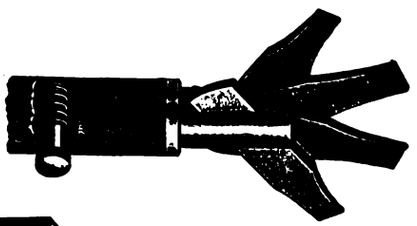
Motorcycling Glove

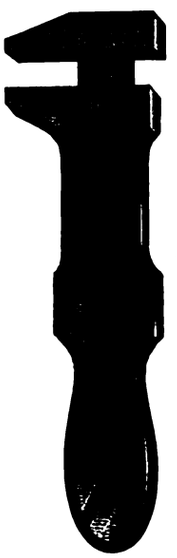
gives you double comfort and service. The double (corrugated) palm and inner thumb doubles the life of the glove and eases the physical effort of the grip on the handle bars, maintaining constant, firm control with slightest effort. A positive surprise and a welcome relief—it adds greatly to your motorcycling pleasures.

This new, exclusive Grinnell device, together with protection of the distinctive "stay-put" gauntlet (if desired), the ingenious, hand-cooling **ventilation**, and the famous Grinnell **"Rist-Fit"** comfort and convenience makes **Grinnell Gloves** the **best investment** in outdoor service gloves at **any price.** The price is so modest that their enduring service means **genuine glove economy.** Made in many styles for many uses—at your dealer's—or

Be sure to see our exhibits—at the Chicago Motorcycle Show—February 3d to 8th—Manufacturers' Exhibition Building—Space 68; and also at the Chicago Auto Show, Feb. 1st to 8th—Space 33, Armory Gallery; and Boston Auto Show, March 8th to 15th—Paul Revere Hall and Mechanics Building—failing this, write us!

Morrison-Ricker Mfg. Co., 17 BROAD STREET GRINNELL, IOWA





Every motorcyclist should find place in his kit for the Billings & Spencer Wrench, Pliers and Magazine Screw Driver.

These tools will save much time and trouble when repairing or adjusting is necessary—because of the many uses to which they may be put.

Drop forged of properly tempered steel and critically assembled, they are quaranteed to last a lifetime.

Write for Catalog

BILLINGS & SPENCER CO.

HARTFORD, CONN.

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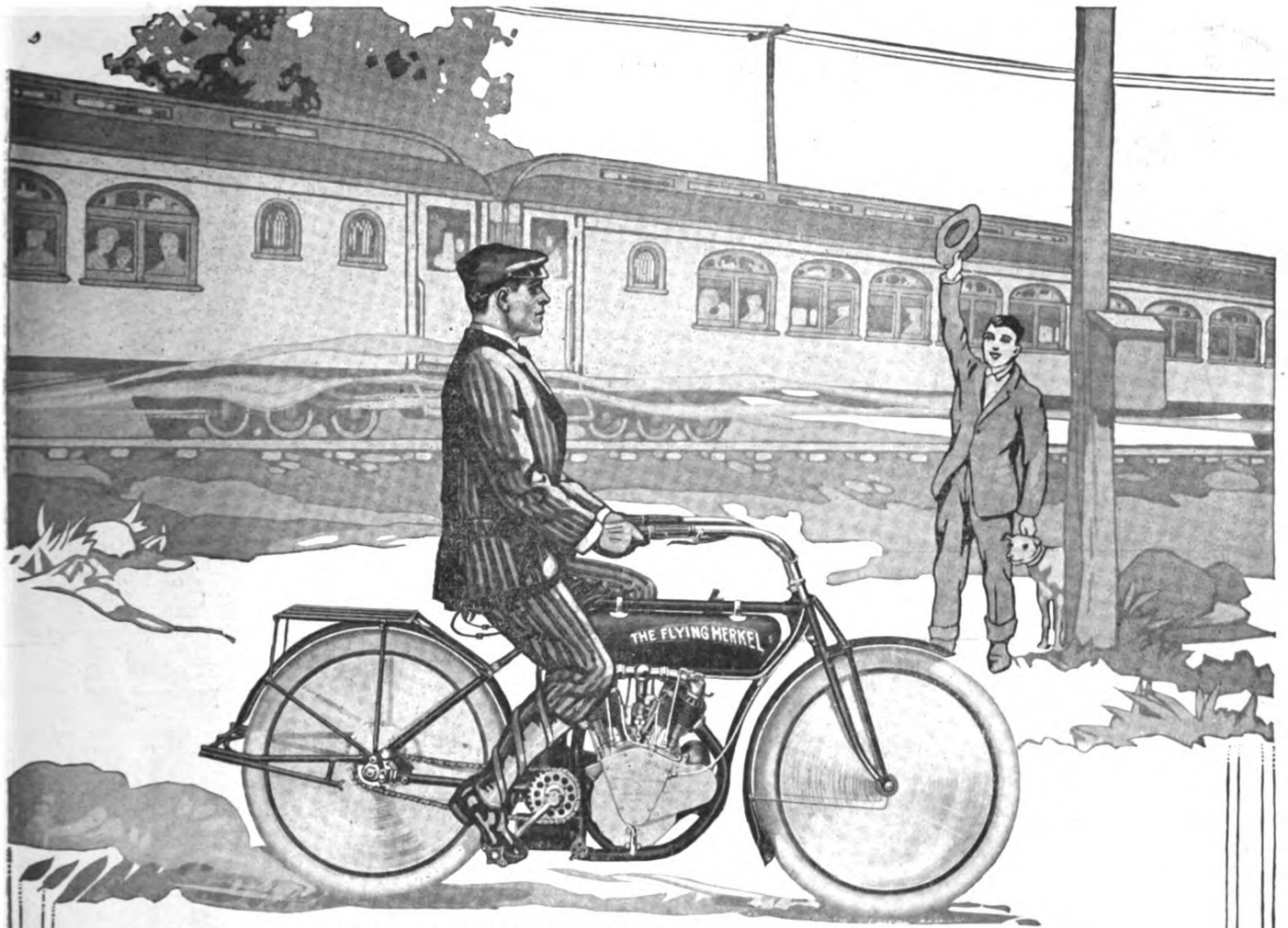

THE PULLMAN OF THE OPEN ROAD

but inadequately expresses the superior and exclusive features embodied in the motorcycle which has created a sensation wherever motor vehicles are known.

THE FLYING MERKEL

for 1913 is the only motorcycle in the world with a Self-Starter and Two-Speed Free Engine Hub—an exclusive feature which at once makes motorcycling more than ever a sport for gentlemen. The original and improved Spring Frame and Spring Fork makes all roads boulevards, and the full Hess-Bright ball-bearing motor gives the power plant flexibility not found in any other motorcycle engine. Write for art catalog, fully describing the famous prize winning "4-45" and "7-75" "Yellow Jacket" models.

The Miami Cycle & Mfg. Co.
300 HANOVER STREET
MIDDLETOWN, OHIO
MEMBER M.M.A.

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We make the F. A. M. Official Uniform.

THE LOEWENBERG LINE

Of Motorcycle and Sporting clothing for men and women combines all the necessary essentials of Smart style, Handsome finish and Great Comfort, Long Service and Absolute Protecting Qualities. They have that well cut and well tailored effect peculiar only to custom made garments.

EVRDRI

"Proofed for Rain"

is a cloth specially treated by our own water-proofing process and will proof against storms of all descriptions. From this cloth we make most of our extensive line, including

The "ELCO" Coat

Women's Coat and Skirt.

This easy-on and easy-off coat is especially adaptable to business men who ride motorcycles, but can be used for innumerable different purposes. It is rainproof and can be worn over your business suit without fear of being soiled. Small cut shows the Elco Coat when worn loose.

We make the F. A. M. uniform according to official specifications and are prepared to fill all orders promptly. F. A. M. insignia of gold color worked on deep blue silk background put on collar tabs.

Our line of Norfolk and Double-breasted coats is complete. Materials of every variety of texture and color.

Elco Coat when tucked into leggins.

WOMEN'S Coat and Skirt

We can suit the suiting requirements of lady motorcyclists. These garments are of shapely cut and well finished and made in Olive or Tan of EVRDRI Material.

The "LOEUCO" Leggin

A specially designed Motorcycle Thigh Leggin is made to lace from knee down, with strap and buckle at bottom. Elastic band at top to fasten to suspender buttons of trousers. Made of EVRDRI material or Olive Khaki.

The "Loeuco" Leggin.

DEALERS: Prices, catalogue and samples of cloth on request. Goods sent on approval to dealers and jobbers furnishing good references. All garments guaranteed.

THE LOEWENBERG CO.

58 Colden Street, Newark, N. J.

When writing to advertisers, please mention MOTORCYCLE ILLUSTRATED.

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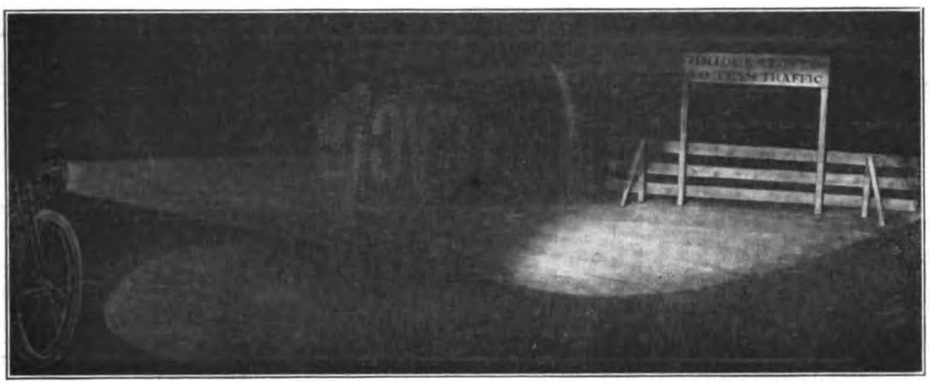
GENOLITE

The Only Complete Electric System for Motorcycles

GENERATOR **GOVERNOR** **STORAGE BATTERY**

An Actual Photo-graph



Demonstrating a "Genolite" in Action

The One You Have Been Waiting For

Why are our cities electric lighted?
Why are 90% of our automobiles electric lighted?
Because they want the best light at the least cost.

Why buy a 1913 model motorcycle which in every way fulfills your dream—the one you have been waiting months for, and then equip it with a lighting system as of 1903, 10 years behind the time?

The "GENOLITE" is not simply a headlight. It is a lighting system identical in principle with those installed in the highest grade automobiles, which throw a light a quarter of a mile in front of them.

The "GENOLITE," being adapted to use on a motorcycle, is smaller and simpler—throwing a straight shaft of white light 500 feet ahead.

With the "GENOLITE" the light is always the same, no matter how fast or how slow you travel. It is mechanically governed and absolutely controlled.

"GENOLITE" means a perfect electric generating plant that is small enough to be mounted on a motorcycle and yet strong enough to operate anything you wish to put on your machine—headlight, tail-light, speedometer light, trouble light, or horn—all at one time if need be, either when standing or when riding.

Send a post card for our descriptive booklet, and if your dealer does not handle it, order from us direct.

Mr. Dealer: Get in line before the line gets too long for us to reach you

Hughes-Wessling Company, 1774 Leland Avenue, Chicago

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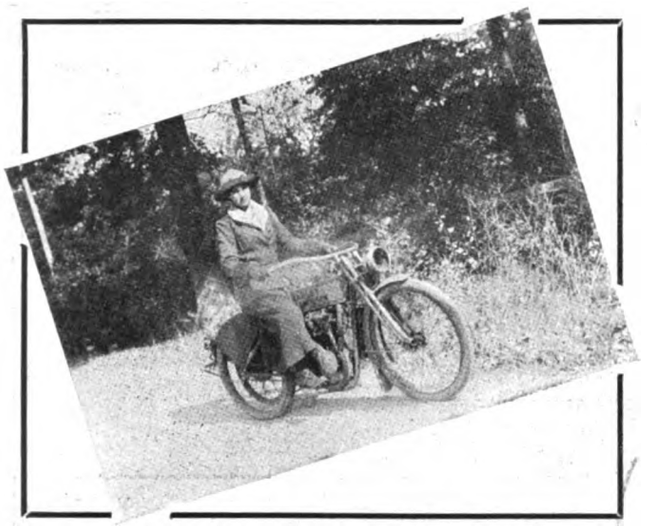

Milwaukee, Wis., Nov. 4, 1912.

EMPIRE TIRE COMPANY, 1305 Michigan Avenue, Chicago, Ill.

Gentlemen: Mr. Rosenkrans of the Harley-Davidson Motor Co. has requested me to write you concerning the splendid service I have had from a set of Empire Tires on my motorcycle.

These tires have been run 10,372 miles without a puncture. I presume this is due to the best grade of materials that you use in the manufacture of your tires. Very sincerely,

MISS LILLIAN HAUERWAS,
309 Twenty-fourth St.

The New Empire Motorcycle Tire is Good

YOU CAN GET THESE SAME RESULTS

Ask your dealer to equip your new 1913 Model with EMPIRE TIRES and EMPIRE RED INNER TUBES. Then you know you have the best.

Don't take any other

EMPIRE TIRE COMPANY

Factories: Trenton, N. J.

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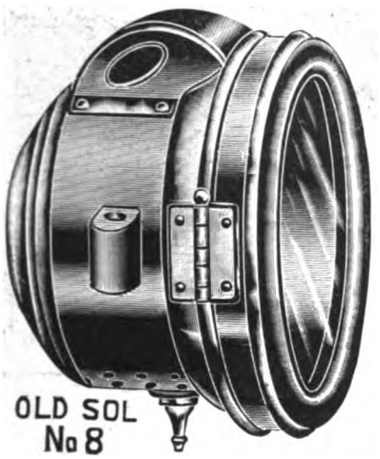
"OLD SOL"



A Few Members of the "Old Sol" Family

We want to say without fear of contradiction that we carry the largest and most complete stock of perfect motorcycle lighting equipment of any concern in the United States. From OLD SOL No. 8, the largest and positively the most powerful motorcycle light made, to OLD SOL No. 20, an electric tail-light, every requirement of the rider has been carefully considered and successfully met.

For tremendous light throwing capacity, for incomparably sturdy construction, for durability, for clean-cut beauty of appearance, OLD SOL No. 8 is easily the superior of any motorcycle lamp made. It has the perfected German Lava burners so much sought after in automobile lamps, heavy door glasses of double thickness, making it practically immune from breakage in the advent of a "spill"; specially ground Mangin mirror lenses, dioptic specifications for which were carefully compiled by us after a keen and comprehensive study of the most efficient automobile lamps. Body is drawn from one piece of heavy gauge brass and the door frame is of specially beaded construction designed to give the maximum of strength. Truly no more fit companion for the big twins of 1913 manufacture can be found than OLD SOL No. 8.

PRICE $6.50

Diameter of door, 8 in.
Candlepower, 1,500.
Brackets per pair, $1.00.
Diameter of lens, 6 in.
Weight, 4 lbs., 2 oz.
Bezel, 50c, extra.

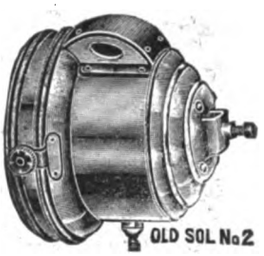
PRICE $5.50

Diameter of door, 7 in.
Candlepower, 1,000.
Brackets per pair, $1.00.
Diameter of lens, 5 in.
Weight, 3 lbs.
Bezel, 50c. extra.

PRICE $4.25

Diameter of door, 6¼ in.
Diameter of lens, 4½ in.
Candlepower, 600.
Weight, 2 lbs.
Bezel, 50c. extra.

WITH THE "OLD SOL" MOTORCYCLE LAMPS OVERSIZE LENS



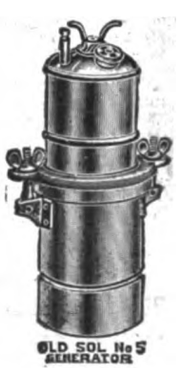
PRICE $4.25

Diameter of door, 6¼ in.
Diameter of lens, 4½ in.
Candlepower, 600.
Weight, 2 lbs.
Bezel, 50c. extra.

For the rider who desires a lamp that is slightly less powerful than "Daddy OLD SOL," we recommend OLD SOL No. 17, 1,000 candlepower or OLD SOL Nos. 1 or 2, 600 candlepower, differing only in bracket arrangement. These lamps had a tremendous vogue in 1912 because of their all-around perfect service, their sturdy durability and their handsome appearance. All indications point to a steady increase of their popularity for 1913.

Then there are riders who demand lamps that combine generator with headlight. We pride ourselves upon having most closely approximated the rider's ideal of what a combination generator-headlight lamp should be. Made of the same material and with the same conscientious care as the larger and more powerful OLD SOL lamps, models 3 and 4 (differing only in bracket arrangement) are truly efficient and durable light throwers. The famous OLD SOL generator with its new type double clamp, sifting carbide chamber and large capacity is only one of the many good features of these close coupled types. Sufficient carbide can be stored to feed even the largest OLD SOL lamp for six hours, at full candlepower.

We will be glad to send a full description and prices of our line to anyone upon request. If you, Mr. Dealer, want to handle the most widely known and most admired line of lamps on the market, write us at once for our proposition.



Hawthorne Mfg. Co., Ltd.

35 Spruce Street, Bridgeport, Conn.

Pollock Mfg. Company, Ltd., Berlin, Ontario, Canada

"OLD SOL"

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Prest-O-Lite
For Motorcycles

"Wouldn't ride at night without it"

That's what every experienced rider says about Prest-O-Lite. You know, if you've ever tried to do any road work at night that the oil lamp won't do. Small carbide lamps are but little better.

But with a Prest-O-Lite Tank and a lamp big enough you can tour safely any time and anywhere. You have a brilliant, dependable light that turns on and off like a gas jet.

Money Invested

Regard the money paid for a Prest-O-Lite Tank not as money spent,—but as money invested. It's extra insurance against accident. And, besides, a Prest-O-Lite Tank never gets to be second-hand. It can always be sold for about what it cost, owing to the universal use and demand. Exchanges cost little—never more than the carbide to feed a generator—and in most cases less.

$10

Try Prest-O-Lite for 30 days at our risk

You need Prest-O-Lite to make your night riding pleasant and safe. So that you can see how much you gain by it, we want to have it on your machine for 30 days' trial. Then if you decide you can do without Prest-O-Lite, the trial won't cost you a penny. Fair enough, isn't it? We want every rider who isn't using Prest-O-Lite to take advantage of this offer. Write for booklet and plan today.

The Prest-O-Lite Co. 246 East South Street Indianapolis, Ind.

CANADIAN GENERAL OFFICE AND FACTORY, MERRITTON, ONT.

Exchange Agencies Everywhere

TO DEALERS—It's a poor idea to train your customers to going elsewhere for Prest-O-Lite Exchanges. The other dealer may sell them other things as well.

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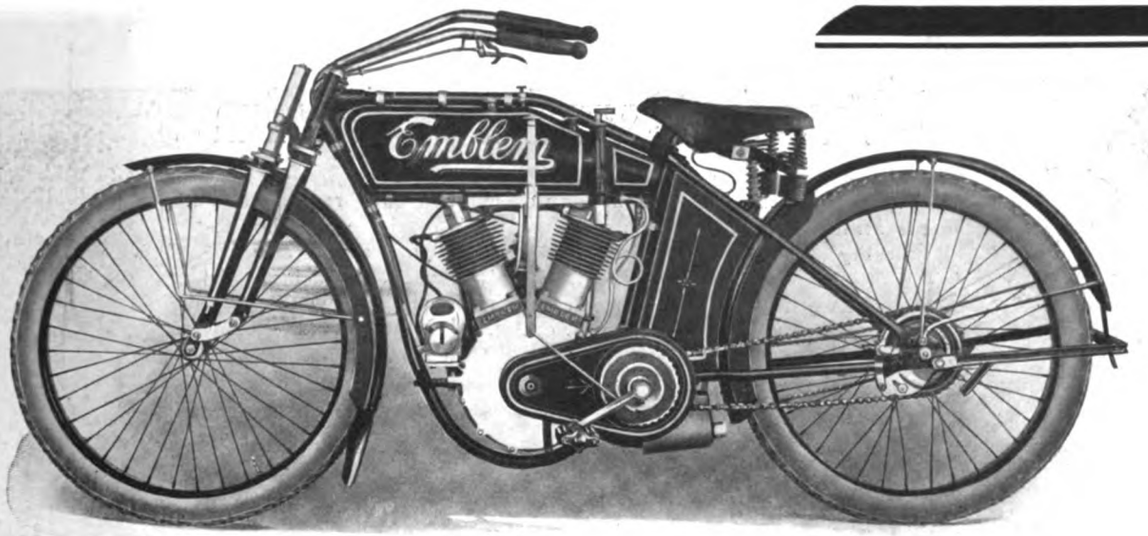

EMBLEM TWIN, 67 C. D. CHAIN DRIVE. $250.
EMBLEM TWIN, 76.6 C. D. $300.

Is the 1913 Emblem Radically Different? No. Because It Is Permanently Correct

The basic principles upon which was built the first Emblem—STRENGTH, DURABILITY, COMFORT—were so essentially correct that each succeeding year brought only minor refinements in the Emblem's construction.

The experiences of Emblem riders, as attested by their enthusiastic letters, plus our own mechanical ideas, prevented our departing from the distinctive Emblem construction, despite the various so-called "revolutionizing improvements" so loudly heralded by our competitors.

Instead, we devoted our entire time and the knowledge and experience gained by each succeeding year in perfecting each salient feature of the Emblem, discarding features that time and experiments proved undesirable, strengthening others—in a word, confining our entire energies toward bringing to the highest point of perfection every smallest detail in the make-up of the sturdy Emblem.

And now, we feel that we have reached the apex, the millenium as it were, of motorcycle perfection. The Emblem is sturdy, simple, comfortable, speedy. But, above all, it has that indefinable air of finish which distinguishes all masterpieces of construction. And year after year the Emblem has gone on in its solid, substantial way piling up honors, performing spectacular deeds in an unostentatious way, and building for itself a reputation which is as flawless as its construction.

The Emblem line for 1913 comprises a

4 H.P. Single,
7 H.P. Twin, and
10 H.P. Twin.

We want every dealer and rider to get acquainted with the merits of the Emblem. We have some territory left—not much—and we want every dealer who is awake to his opportunities to write at once for our proposition. The coupon below will receive our immediate attention.

Emblem Mfg. Co.

Angola, Erie Co., N. Y.

Emblem Mfg. Co. - Angola, N. Y.

Please send me at once your 1913 proposition.

Name .....

Street ..... City ..... State .....

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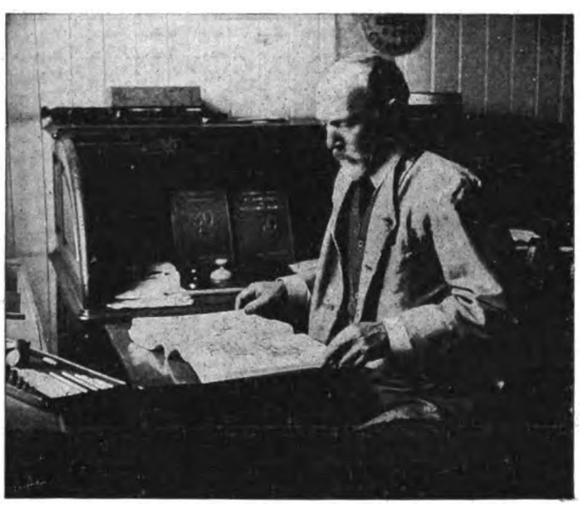
Here is the Maker of the First Cycle Chain

RENOLD CHAIN

RENOLD CHAIN

Thirty-three years ago, while the high cycle, or "elbow-breaker," was at the zenith of its popularity; when to think of the eventual practicality of the motorcycle was to be suspected of a mild attack of insanity, Mr. Hans Renold, whose picture is shown here, was conducting a series of experiments with a view to perfecting a chain drive for cycles. His experiments proved even more successful than he anticipated, and to him belongs the credit for revolutionizing the cycle industry, insofar as the mode of transmission was concerned.

Hand in hand with the growth of the cycle industry grew the RENOLD plant and the confidence of users in the RENOLD CHAIN, until today HANS RENOLD, Ltd., has on its payroll upwards of 1,300 skilled employees and occupies a floor area of more than seven acres. Each year RENOLD chains established themselves more firmly in the confidence of riders. Today, throughout the world, RENOLD CHAINS are conceded to be the highest attainment of chain manufacture. Ninety per cent. of chain-driven motorcycles in England are equipped with RENOLD chains.



Accuracy in manufacture, highest quality of materials and keen inspections are the three essentials rigidly observed in the manufacture of RENOLD chains. Before a chain is permitted to leave the factory, it must be 100 per cent. perfect in flexibility, strength, straightness, accuracy of pitch and fit on sprockets.

In every stage of the RENOLD chain's manufacture, the safety of the rider is assured by the countless inspections which each one of the 6,000 operations necessary in the making of a RENOLD chain undergoes.

Small Pictures, but Big Plants

In the above, we have stated simply FACTS, with no elaboration. We have left it to you to read between the lines. We have left it to you to grasp the significance of the fact that THIRTY-THREE YEARS of exclusive chain-manufacturing experience are behind the RENOLD CHAIN. We have left it to your intelligence to appreciate WHY the RENOLD CHAIN is almost exclusively used by English motorcycle manufacturers. And we leave it to your good judgment as to what chain will have your earnest consideration.

But, in any event, we want to make you a present of a valuable booklet entitled "Hints on Chain Drives for Motorcycles," compiled by Renold Experts. We will send it free on receipt of your name and address.

PETER A. FRASSE & CO.

BUFFALO **419 CANAL STREET, NEW YORK CITY** **PHILADELPHIA**

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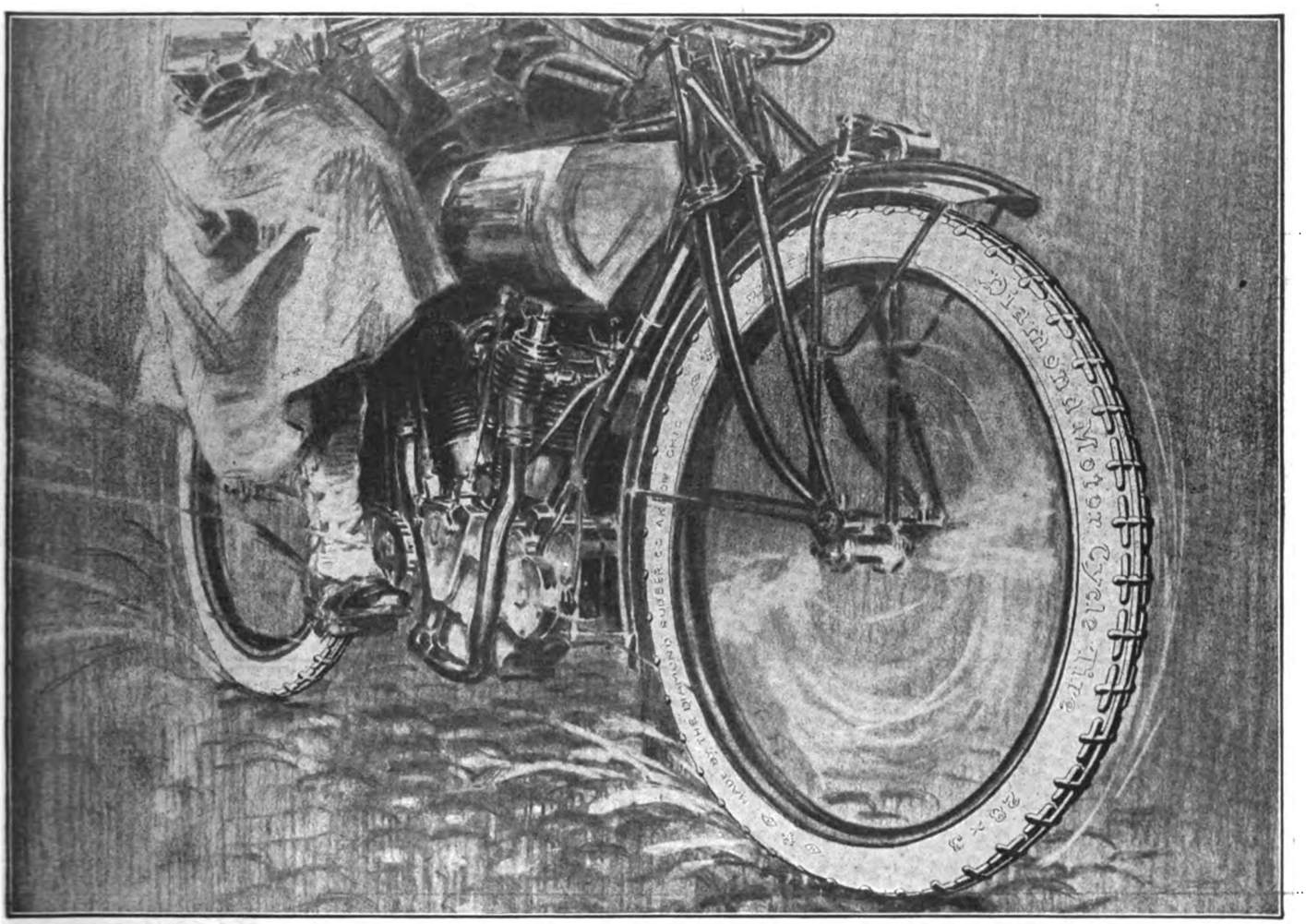
Diamond
SAFETY TREAD MOTORCYCLE TIRES



INSURE YOUR SAFETY AND SECURITY

This tread solved the skid-problem for the automobilist and its marked effectiveness as a skid-arrester induced us to put this "Safety Tread" on Diamond Motorcycle Tires. They are now on sale everywhere. Inspect them at your first opportunity.

WHY RISK SKIDDING?

Diamond Safety Tread Motorcycle Tires won't slip, slide or skid—they grip and hold you to your course no matter how fast you are going, or how short you turn or stop.

THE MILEAGE STRIP

on Diamond Motorcycle Tires adds 20% to the wearing surface—this increases your tire mileage and decreases tire troubles.

VITALIZED RUBBER

Of which all Diamond Tires are now made is a recent Diamond discovery. It adds toughness and lasting life—thereby cutting your tire bills to a marked degree.

STUDDED TREAD

Diamond Tires are also made with a Studded Tread.

WRITE TODAY FOR OUR 1913 MOTORCYCLE TIRE CATALOG

THE DIAMOND RUBBER CO. OF NEW YORK

(Subsidiary of The B. F. Goodrich Co.)

AKRON, OHIO

When writing to advertisers, please mention MOTORCYCLE ILLUSTRATED.

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Maroline MOTORCYCLE OIL

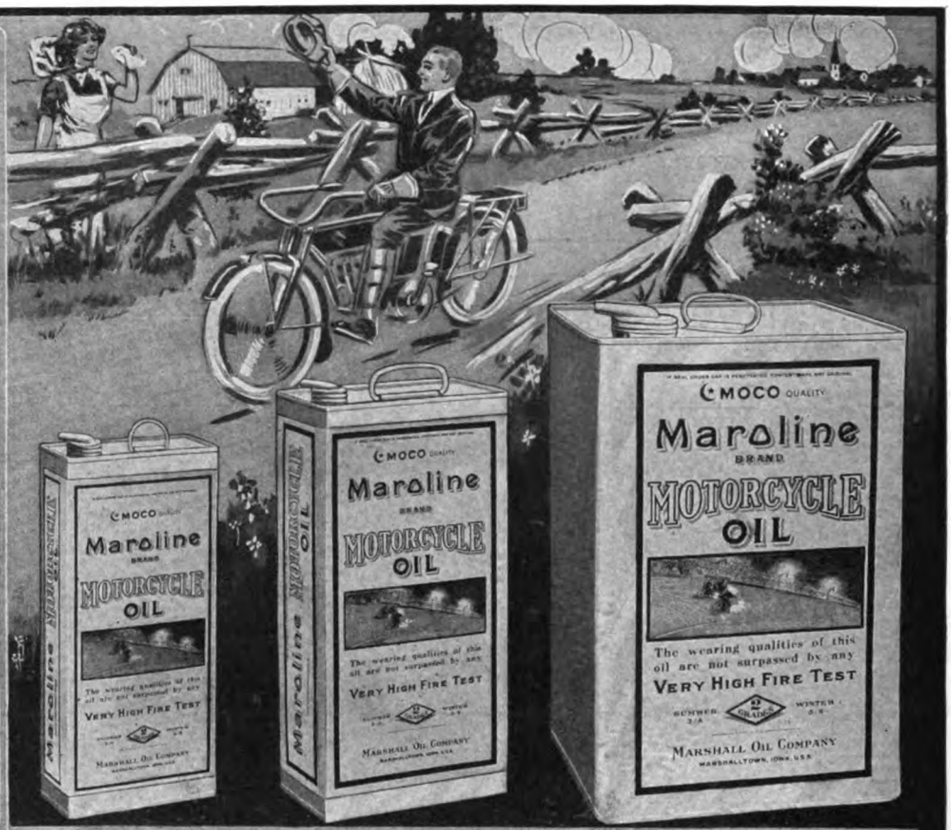
Specially manufactured from brightest filtered PENNSYLVANIA STOCK, exclusively for the Motorcycle.

It insures the highest degree of lubrication and maintains perfect compression, rendering full power and speed. Absolutely carbon proof.

Sold in the Sealed Package

Protecting motorcyclists and dealers. Ask your Supply man for Maroline Oil, put up in handy tins—halves, ones, and fives (gallons). Accept no other.

If your dealer doesn't carry it write us, giving his name and we'll see you're supplied.



MARSHALL OIL COMPANY
INCORPORATED
MARSHALLTOWN - - IOWA - - U.S.A.

To Dealers: Price for 50 gallon lots, same in tins as in barrels, thus protecting you against leakage. Cases packed as follows { Two 5-gallon lithographed tins; Twelve 1-gallon lithographed tins; Twelve ½-gallon lithographed tins

Get the Big Book and Get It Quick!

It's chock full of every conceivable necessity and luxury for the motorcycle rider. It's an education in itself. Our catalog of

1913 MECO Supplies

shows 1243 articles and the strongest features of our business is that our entire $20,000 is made up exclusively of motorcycle supplies. Sign and tear out the coupon and "shoot it into us."

ORGANIZED 1904 INCORPORATED 1910

MOTORCYCLE EQUIPMENT CO.

LARGEST MOTORCYCLE SUPPLY HOUSE IN AMERICA

HAMMONDSPORT, NEW YORK.

M1

Motorcycle Equipment Co.
Hammondsport, N. Y.

I want your Big Book.

Name .....

Address .....

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The Brightest Light at the Show

The Perfection

Just what the motorcyclist has been wanting—a strong, durable lamp with a broad scope, penetrating light. Something better than ever before offered. Built to withstand rough usage—as strong as any automobile lamp.

No Screws or Bolts to rattle loose or lose out

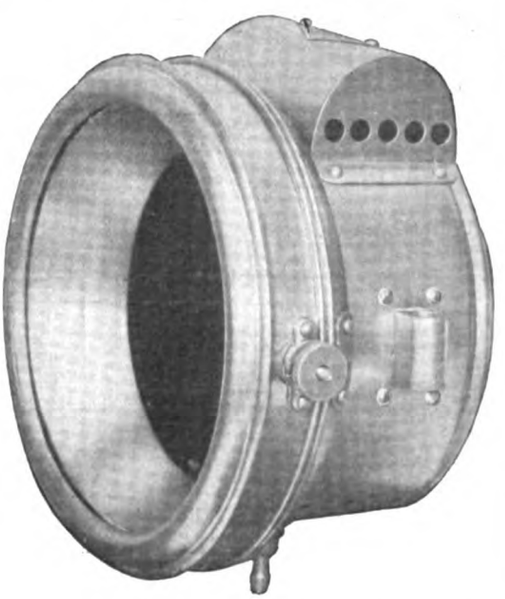
Riveted throughout

Solid as a rock

Special ground mirror reflector, also nickeled front door reflector which scatters the rays, giving them a wider scope.

Body of lamp made of heavy gauge brass, all in one piece.

Entire lamp highly nickeled and polished.



Made in Two Sizes

No. 7. 5-inch reflector, 1,000 candle power **$6.00**

No. 8. 6-inch reflector, 1,500 candle power **$7.00**

Brackets nickeled on copper, to fit any machine. **$1.00**

Chicago Cycle Supply Co.

FACTORY DISTRIBUTORS TO THE TRADE, BICYCLE AND MOTORCYCLE SUPPLIES

22 W. Lake Street Chicago, U. S. A.

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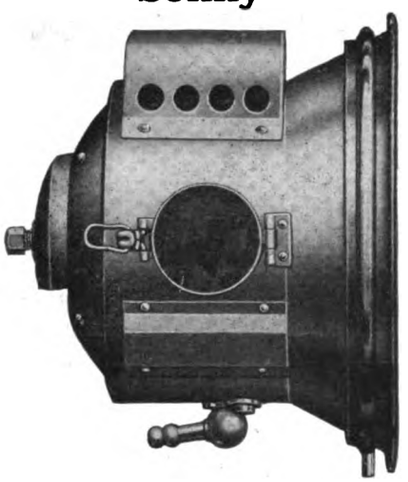
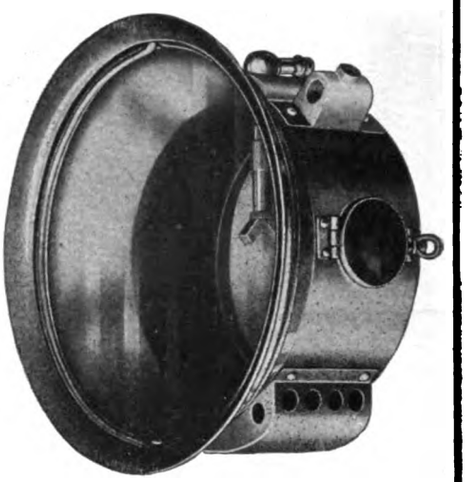
"Sonny"



No. 194 Nickel, Flat Bracket.....$4.00
No. 194P Nickel, Fork Bracket.... 4.00

Equip Your Motorcycle with Solars

"Dad"



No. 195 Nickel .....Each $5.00

The World's Greatest Line of Quality Lamps for Motorcycles

Here's wonderfully satisfying equipment for you men who want a thoroughly efficient and reliable lighting system.

Solars, the result of over 15 years of exclusive motor lamp building experience, excel all others in the two cardinal points of brilliancy and durability. They throw rays of unequalled penetration; and they give longest service.

On this page we show four favorite lamps—and a generator. Each stands for the utmost of satisfaction.

Tail Lamps

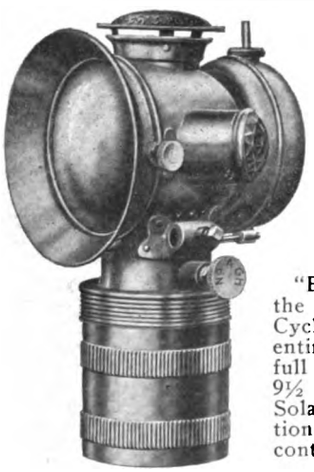
Electric, No. 102E, with Bracket $2.00

Both these lamps of same size, except gas type has ventilating hood.

Gas, No. 102G, with Bracket, $1.50

3 in. long, 3 in. high, heavily nickel plated.

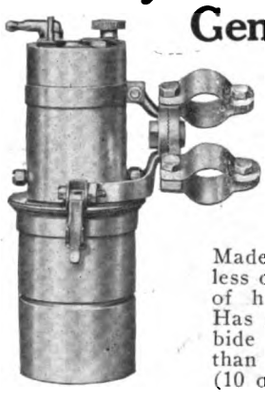
Solar Generator Headlight



No. 4GH Nickel, with Bracket, $7.50

"Big Brother" of the famous Solar Cycle Lamp. Made entirely of Brass, full nickel plated, 9½ inches high. Solar gas generation gives perfect control water feed.

Motorcycle Generator



No. 91, Without Bracket, $3.75

Made from seamless drawn sheets of heavy brass. Has greater Carbide capacity than any other (10 oz.)

WRITE TODAY FOR OUR NEW CATALOG

Our new catalog gives all the interesting details of Solar Equipment. Every detail means a possible saving—a better service for **you.**

Write for catalog today.

The Badger Brass Mfg. Co.

Kenosha, Wis. **New York City**

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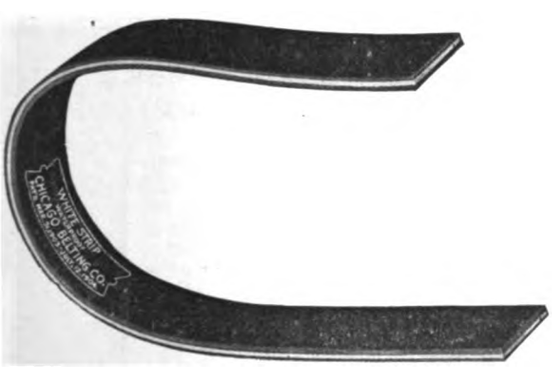
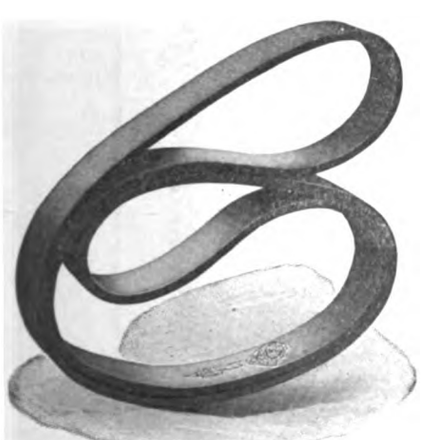
A Little Talk on BELTS

Mr. Dealer, this talk is for you. We want to make it so personal, so impressive and so direct that you can feel our presence, sense our earnest desire to interest you and grasp the spirit of co-operation that exists between us and our dealers.

In the first place your interests demand that you handle belts that yield legitimate profit. We do not doubt but what you are perfectly familiar with both WHITE STRIP and SEA LION Belts. If you are, you know that these belts give 100% service for every dollar they cost.



A Chibeco Repair Outfit is a necessity for every up-to-date dealer. With this outfit you can shorten and repair belts, and thus increase your profits and save your customers annoyance and expense, for you know that every time it is necessary to send a belt away to be repaired or shortened, it means express charges and several days' wait for the return of the belt.



SEA LION Dressing is now put up in attractive counter display boxes, each containing twelve tool kit cans. One of these display boxes would be an ornament to your show case and assist materially in the sale of the dressing.

Your name may be on our list of dealers, but to make sure, write us today for our dealer's proposition for 1913. The season is approaching, and you want your share of the big business.

If you are coming to the Chicago Show, you will find our exhibit at Booth No. 59; stop and get acquainted, but by all means get our 1913 dealer's proposition before the riders get out on the road.

Chicago Belting Company
113-125 Green St. Chicago

Branches: { New York, New Orleans, Portland, Los Angeles, Cleveland, Tannery: Niles

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Humiston

DAY LETTER

Form 168

THE WESTERN UNION TELEGRAPH COMPANY

INCORPORATED

25,000 OFFICES IN AMERICA. CABLE SERVICE TO ALL THE WORLD

THEO. N. VAIL, PRESIDENT BELVIDERE BROOKS, GENERAL MANAGER

RECEIVED AT the WESTERN UNION BUILDING, 195 Broadway, N. Y. ALWAYS OPEN

LOS ANGELES CALIF 24

MOTOR CYCLE ILUSTRATED

51 CHAMBERS ST. NEWYORK NY

USED DUCKWORTH CHAINS FOR THE HUNDRED MILE

RECORD

LEE I HUMISTON

That's All We Have To Say

DUCKWORTH CHAIN & MFG. CO. **Springfield, Mass.**

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MY ARGUMENT IS THIS—

"Every article manufactured by me is good enough to be guaranteed. The Nathan mark is equivalent to my **personal pledge** to you as to honest value in every article and a square deal. This makes it safe for your dealer to say, 'Nathan's goods are the best you can buy.' Since Nathan quality specialties cost no more than the ordinary kind and since the offer be greater value for your money, it's up to you to say 'Nathan' when buying. Think it over."

Nathan Koveraul Garments Protect Your Health and Clothes

Made as per F. A. M. Specifications.

This famous garment is the only one that permits you to make a trip over muddy and dirty roads without soiling your clothing. At the hotel, restaurants or home you may remove your KOVERAUL in a moment and your clothing will be as neat and clean as when you started.

The KOVERAUL is an ideal garment. Its olive shade does not show dust or grime. It's very durable and sheds water like a duck's back. The KOVERAUL garment consists of trousers and coat. Please note the picture.

The KOVERAUL is exceptionally well tailored and made to withstand long wear and hard use. Our catalog describes it in full. Write for it today. Or, better still, look up a dealer handling the Nathan Line.

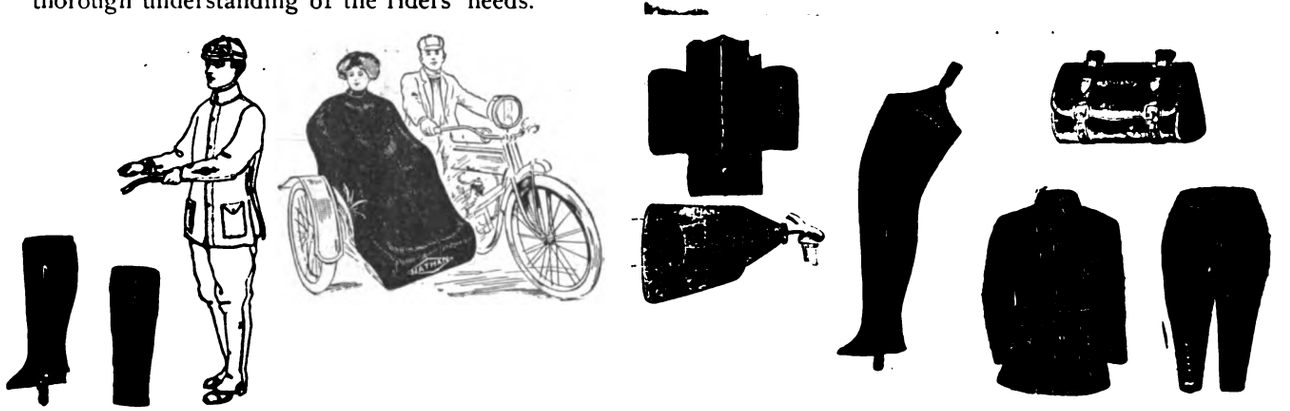
Nathan Quality Leggins— Other Specialties

We manufacture a line of leggins that is complete in every detail. The patterns were especially designed and, by practical tests, have proved their fitness for their particular use. You'll find our leggins are true to measure. That's why they are comfortable and easily adjusted. NATHAN LEGGINS give absolute protection. We have just what you want and at a price you'll like to pay.

Our catalog explains everything. Get it today. We also manufacture tire covers, gas lamp covers, tool rolls, motorcycle capes, mud guards, inner tube bags, magneto covers, luggage carriers, etc. All bear the Nathan mark. Get our catalog today. Ask for name of dealer nearest you if you can't locate him.

The Mark that Marks NATHAN The Top Limit in Quality

I have convinced thousands by the merciless test of comparison that NATHAN goods are higher in quality than any other. I want to tell you about my high class materials, perfect workmanship and thorough understanding of the riders' needs.



SEND THE COUPON NOW

Riders—Send the coupon now for our catalog. Or write on a postal card. It will do. The main thing is to get the book and our prices before doing any buying.

DEALERS: GET READY NOW

1913 will be the banner year in the Motorcycle Trade. We have been telling your customers all about Nathan Specialties. Naturally they want them. Be prepared to serve. Write us today for prices and terms. We furnish electros and selling descriptions for your catalogs.

Edwin B. Nathan

NATHAN NOVELTY MFG. CO.

84-A Reade Street New York City

Nathan Novelty Mfg. Company

84-A Reade Street, New York City

Dear Sirs:—Please send me your catalog by next mail.

Name .....

Address .....

City..... State.....

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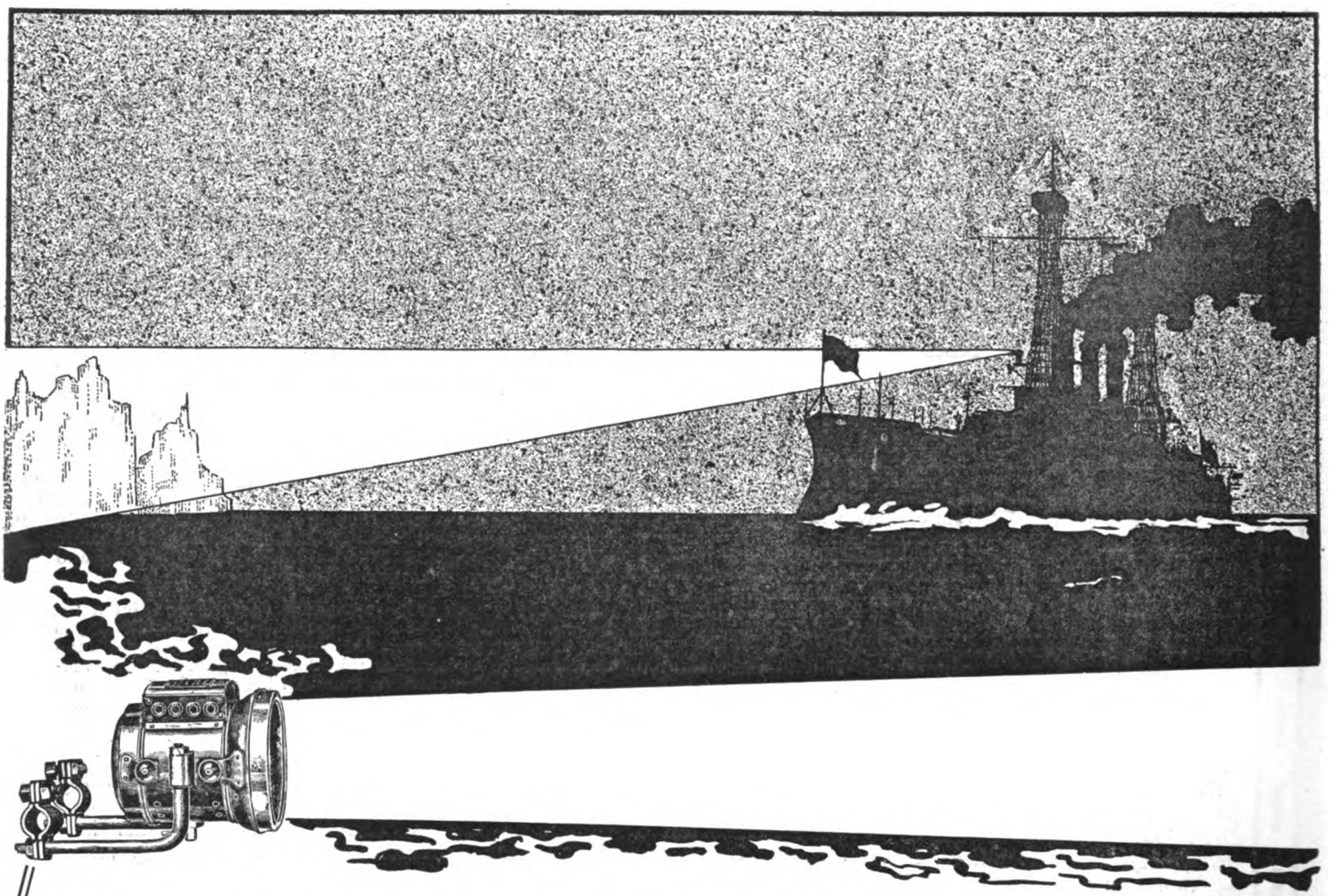

Big Naval Searchlights

AND

20th Century Lamps

are constructed on the same lighting principle. Both throw a long **concentrated direct** ray which reveals danger a great ways off.

The street lamps should light up the sidewalks and roadsides—Motorcycle and Bicycle lamps should illuminate the road far ahead, too. That's what

20th CENTURY LAMPS

do and do it beter than any other lamp marketed.

One of their notable features is the "Open-door-to-the-lens," which permits the back to open and allows rider to clean the lens easily, and also when lamp is open and lighted, allows sufficient light to be thrown back to illuminate the motorcycle if repairs are needed at night.

All Good Jobbers and Dealers like to sell them. All Good Riders like to use them. They are the "Old Reliable" kind and are **Handsome, Strong, Compact and Powerful. Accept No Substitute.**

20th CENTURY GENERATORS

Are as efficient in their way as 20th Century lamps. They are exceptionally sturdy, being made of strong brass heavily nickel plated. Their patented locking device assures easy locking and unlocking for filling purposes, and absolutely eliminates the chance of screw threads tightening or corroding.

Catalog on request.

20th Century Mfg. Co., 420-422 Ogden St., Newark, N. J.

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SEE IT AT YOUR DEALER

The New 1913 Stewart Motorcycle Speedometer

Model D Price $12

Insist on getting this Stewart MAGNETIC speedometer Refuse to accept an obsolete CENTRIFUGAL instrument.

This splendid MAGNETIC instrument is modeled after our high priced automobile speedometers that are world famous for accuracy, durability and beauty. It is installed on the mud-guard or extension spring as shown below—in which position it is easily read from the driver's seat and is

illuminated at night by the headlight!

See the New Front Wheel Two-Belt Drive

Simple—Strong—Trouble-Proof!

The large driving pulley is solid steel nickeled; the small pulleys, fibre. The belts are coiled steel piano wire—they ***"grip the grooves"*** in the pulleys and render slippage impossible. They will give to a strain, but cannot break. This instrument and drive has stood the most severe road tests for eight months. It's perfect.

Handsome catalog with art cover "Motorcycling in the Yosemite" will be mailed you free on request

Stewart-Warner Speedometer Corporation

General Offices: 1942 Diversey Blvd., Chicago

Factories at Chicago and Beloit

New York	Los Angeles	Minneapolis	Kansas City	San. Francisco
Chicago	Philadelphia	Indianapolis	Cleveland	Boston
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Kraft-Knit

The Ideal Sweater for Motorcyclists

Wool—all wool—and nothing but wool—is what enters into the making of the KRAFT-KNIT MOTOR COAT. Warm, yet not uncomfortably so, elastic, perfectly fitting, with hand-made button holes that keep their size and shape as long as the coat is worn, with large pockets, strongly made, for the convenient carrying of small tools, a coat that will not shrink with washing, but will retain its perfect proportions throughout its life—The KRAFT-KNIT COAT cannot help but be JUST WHAT THE WINTER RIDER WANTS.

Knit in four colors, gray, maroon, cardinal and white. Price, $6.00 prepaid. When ordering state chest measurement, length of arm and color desired.

.. Personal to Dealers ..

The Kraft line is the line for YOU to handle. Why?

Because it gives quality always.

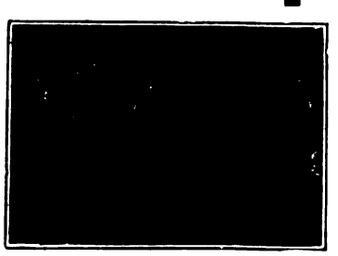
Because it contains only goods of undoubted merit.

Because the terms we can make you will mean a good, clear margin of profit for you.

Abesto Pull-E-Tape

To bring your belt up to the maximum of its efficiency and **keep it there,** you need ABESTO PULL-E-TAPE. It prevents belt from becoming glossy. It gives it a better grip on the pulley rim. No screws to cut the belt.

Applied in a minute. Abesto Pulle-E-Tape vulcanizes itself. Made in all standard widths. A roll of five feet for 50c. Order one today and try it. You won't do without it as long as you ride a motorcycle.

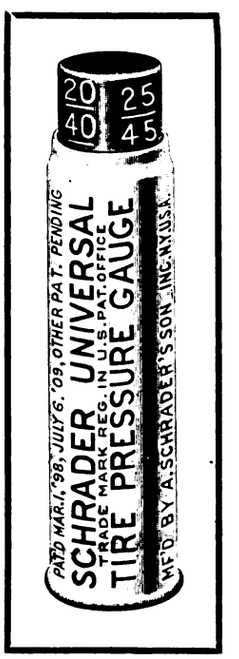


Kraft Knitting Co.
146 E. Exchange St.
Akron, O.

Keep Your Tire Pressure Up and Your Tire Expense Down

You cannot run your motorcycle with any old pressure in the tires AND EXPECT THE TIRES TO LAST. Tires are built to withstand a definite and specified air pressure. You can only get maximum service when you inflate them to the EXACT air pressure needed, and maintain that specific pressure at all times.

A SCHRADER Universal Tire Pressure Gauge



PRICE ONE DOLLAR

Will tell EXACTLY what pressure you carry in your tires.

Kicking the tire won't tell you and guessing won't do.

Nearly right isn't enough, the pressure must be EXACTLY right.

ASK YOUR TIRE MAKER

FOR SALE BY

Tire Manufacturers, Jobbers, Dealers, Garages, or by

A. Schrader's Son, Inc.

30-32 Rose St. - New York

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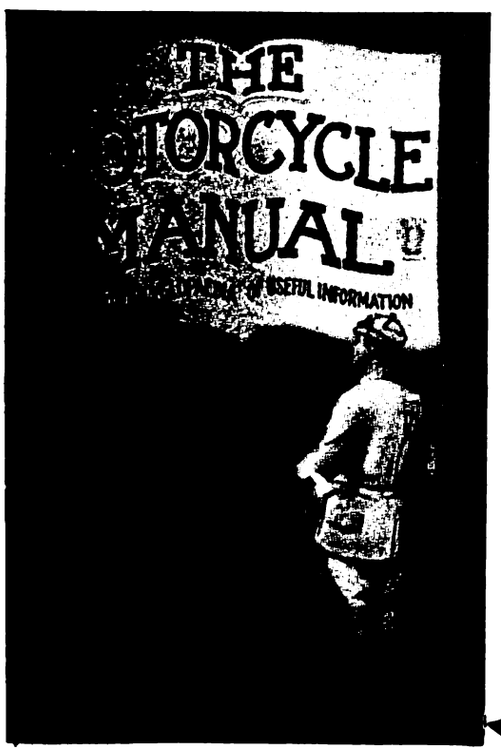
There are times when Ignorance is Not Bliss

Let us enumerate:

For instance, on a sweltering day while you're happily breezing along, your motor suddenly develops the "fidgets." You get off and investigate. If you know all about a motor's internal construction and are "wised up" on how to handle a cranky magneto, and know all there is to know about the carbureter—you will EVENTUALLY locate the trouble. But if you don't—you're STUCK!

Then is the time to dig into your tool box and consult your tried and true friend

The Motorcycle Manual



Its trouble chart tells how to locate the trouble and REMEDY IT. It tells all there is to tell about every part of your motorcycle. It gives concise information regarding license laws in every State in the Union. It gives the official racing records. It explains horsepower and other mechanical formulae; it is a handy motorcycle trade directory; it enlightens you as to the F. A. M.—who's who and what he is doing—it—oh, well!—do you think you can afford to be without it?

And it costs a quarter. We don't have to tell you what to do with the coupon in the corner.

Motorcycle Publishing Co.
51 Chambers Street, New York

I enclose 25c. for a paper-bound copy of THE MOTOR-CYCLE MANUAL.
I enclose 50c. for a cloth-bound copy of THE MOTOR-CYCLE MANUAL.

NAME .....

ADDRESS .....

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Thor

"THE WHITE GHOST OF THE ROAD"

What We Offer You

In the THOR motorcycle, we offer you every desirable feature that can possibly be contained in a motorcycle.

Speed, silence, comfort, endurance, these are most strongly represented in the THOR. Add to this a matchless beauty of appearance and you have a combination hard to resist.

BUT—to prove that these features are contained in the THOR, and reenforcing our claims, is the reputation the THOR has always enjoyed as the motorcycle that always "delivers the goods."

After all is said and done, the machine the rider invariably prefers is not the machine that distinguishes itself by spectacular speed on the track and then fails to stand up on the road, but the motorcycle that unostentatiously goes on year after year, giving the same unvarying perfect service. Such service is assured the rider who invests his money in a THOR.

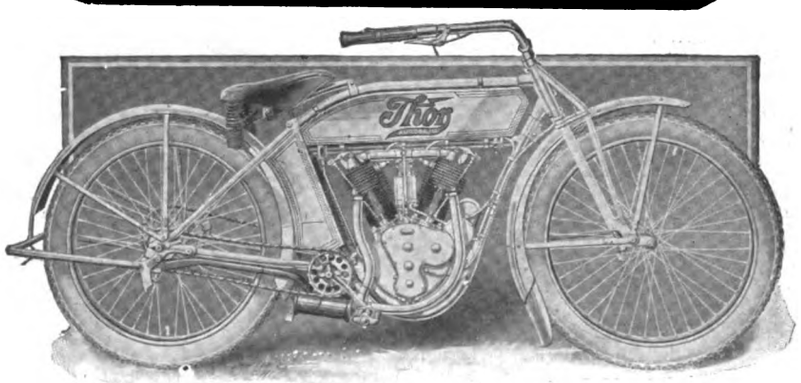
It is hard to find a machine that can equal the THOR in appearance. It is harder still to find one that can come anywhere near the THOR in quality construction. But the hardest task of all is to find a machine that can equal the THOR in powerful, quiet, effortless, comfortable and enduring service.

We want to send everyone our catalog, be he rider or dealer or about to become either.

Aurora Automatic Machinery Co.

Thor Building, 1317 Michigan Avenue, Chicago, Ill.

Pacific Coast Distributer, A. FREED, 1440 Market St., San Francisco, Cal.



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Thor

"THE WHITE GHOST OF THE ROAD"

Have You Clinched the Thor for Your Territory?

If not, don't delay an instant. Sit down and write for full particulars. Just so long as you are without the THOR agency you are losing money that might be easily made.

Think a moment! Behind the THOR there is a reputation which is second to none, and which is a distinct asset to your business if you will only make use of it.

THORS possess many features which are well-known to the public and are everywhere appreciated.

Easy sales are assured—and, what is equally as much to the point, a good profit is secured on every transaction.

Immediate deliveries on all Models:

4 HP. Single cylinder, Magneto ignition . . .	**$225.00**
5 HP. Single cylinder, Magneto ignition . . .	**240.00**
7 HP. Twin cylinder, Magneto ignition . . .	**290.00**

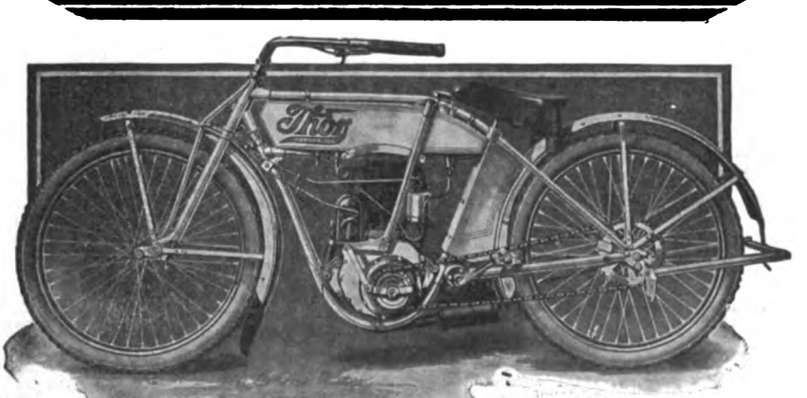
$40.00 additional for THOR two-speed when ordered with machine.

Take the first step towards a prosperous season NOW.
A postcard will do it.

Aurora Automatic Machinery Co.

Thor Building, 1317 Michigan Avenue, Chicago, Ill.

Pacific Coast Distributer, A. FREED, 1440 Market St., San Francisco, Cal.



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VOL 8 NO. 3

MOTORCYCLE ILLUSTRATED

Thursday February 6, 1913

The CHICAGO SHOW

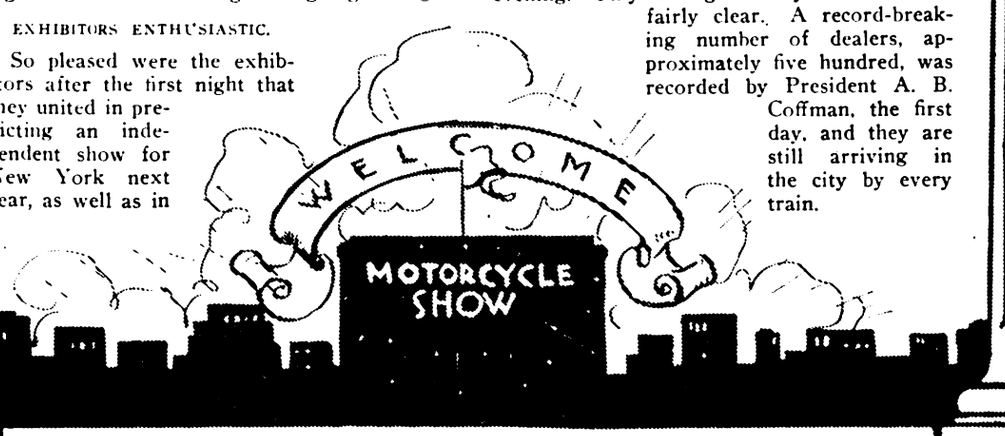
"SUCCESSFUL from every point of view and exceeding the expectations of officials by far." was the announcement that greeted visitors at the opening of the first independent American motorcycle, bicycle and accessory show, which is in progress this week at Chicago, under the auspices of the Motorcycle Manufacturers' Association. For weeks the event has been looked forward to by those who have felt that the motorcycle industry is strong enough to support its own show, apart from the automobiles, and for the last time have the motorcycles been shoved away in some comparatively out-of-the-way corner of a motor car show. That the motorcycles and accessories can carry their own exhibit was proved beyond doubt the first day at Chicago —or the first evening, rather—when over three thousand visitors packed the spacious exhibit hall to the doors. When the doors opened at 7:30 p. m. Monday hundreds of enthusiasts were waiting to gain admission, and as they poured into the show, an eight-piece orchestra struck up "On the Robert E. Lee," and the big event was in full swing and "going strong."

EXHIBITORS ENTHUSIASTIC.

So pleased were the exhibitors after the first night that they united in predicting an independent show for New York next year, as well as in Chicago, for, as A. B. Coffman, chairman of the M. M. A. show committee, expressed it, "It's a success beyond all doubt."

Before the opening night was an hour old, Chairman Coffman made the prediction that 25,000 people would visit the motorcycle show during the week. "It will prove the greatest motorcycle show on record," said Mr. Coffman. "The New York show just held can't begin to compare with this one; no prettier show decorations have ever been seen, and the crowds are breaking records."

The 74 different exhibits were well arranged in the show room, which is on the second floor of the Furniture Manufacturers' Building, 1319 Michigan avenue. There were 77 motorcycles shown, and these were divided among 24 different makes. With almost three times as much floor space as was used at the Chicago show last year, the booths were so arranged as to give the exhibitors plenty of actual working and demonstrating space, but despite the fact that the aisles were wide they were jammed to their capacity on the opening evening. Only during the day are the aisles fairly clear. A record-breaking number of dealers, approximately five hundred, was recorded by President A. B. Coffman, the first day, and they are still arriving in the city by every train.



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FINISHING TOUCHES FOR THE SHOW.

It was late Monday morning when the carpenters and painters got in their first work in preparing the hall for the show, which opened on schedule time in the evening. At 9 o'clock in the morning not all of the furniture and other fixtures had been removed by the furniture manufacturers, and no booths were in sight. At 7 o'clock at night, the hall was transformed, and nothing more could be asked for in the way of decorations or arrangements.

Strict uniformity is the rule of the show. The predominating colors are yellow and green in the drapings, while above each booth hangs a large canvas sign, bearing the firm name in white, on a red background. Particular pains were taken to have all signs hang the same distance from the ceiling, and no firms were permitted to do extra decorating of any nature, with the possible exception of using flowers. The accessory booths were furnished with neat cloth-covered counters, while wooden partitions marked the dividing lines between the motorcycle booths.

INTEREST IN SIDECARS.

As was the case in the New York show, the sidecar products at Chicago attracted much attention, especially from the ladies, and close inspection of the handsome outfits was the rule. The great majority of visitors seemed to show an intelligent interest in the displays, and they were not at all backward about expressing their opinions and asking questions.

It was interesting to note that there was no such thing as a "favorite" section in the show room, and for that reason the crowd was well distributed; none of the exhibits suffered from bad locations. Not even the late comers—those exhibitors who were provided for at the "eleventh hour"—could complain, for room was made for eight additional exhibits close to the entrance of the hall, and that small section of the show was always crowded.

There were a number of new exhibits shown at the Chicago show which were not seen in New York, and these especially attracted attention. These few exhibitors were mostly from the Far West, and they found it far more convenient to show at Chicago than to make the long trip to the eastern coast. The West was very strongly represented at the show, and the spirit of the progressive westerners was in evidence everywhere. Tales of the great progress being made in the West were heard on every hand, and every man from west of the Mississippi who was present seemed exceedingly anxious to make the booming conditions of his district known.

CHICAGO BOOSTERS BUSY.

It was a Chicago event, especially on the first night, for the Windy City boosters were much in evidence. Before the evening had progressed far, everyone was wearing a printed tag, bearing the words, "Boost Chicago for the F. A. M." The Chicago Motorcycle Club ribbons were much in evidence also, and the club operated an exhibit to boost its membership list. Two active teams of the club were working at the show all the time, and the results were gratifying. On Wednesday evening the Chicago Motorcycle Club gave a big stag smoker at its clubhouse, on the Midway, for the out-of-town riders and dealers, and the event was one of the biggest side issues of the show. Wednesday night was officially carded as "Chicago Motorcycle Club Night."

Band concerts were held every afternoon and evening, and at all times the show committee was on the jump. A noticeable feature was the smooth and systematic manner in which everything was carried out. The usual "red tape" in regard to securing admission was lacking, and the first independent show smacked of business throughout.

GOODYEAR BANQUET

MORE than 135 Goodyear tire men were present at a banquet given by the Goodyear Tire & Rubber Company at the Congress Annex, Tuesday evening, February 4. F. A. Seiberting, president of the company, was the toastmaster, and the main thought of his address was that the Goodyear business, with its increased facilities and hard-working sales organization, should approximate $40,000,000 this year. Other speakers on the programme were: C. W. Seiberting, G. M. Stadelman, A. F. Osterloh, H. S. Quine and W. D. Shilts.

A LETTER TO WILSON

THE following letter speaks for itself:

"Hon. Woodrow Wilson,
"Princeton, N. J.

"Dear Sir:

"If information to that effect circulated through the public press is correct, we are soon to have the pleasure of seeing inducted into the presidency the first advocate of the 'Two Wheeler,' represented in your case by the bicycle.

"Such a signal event in the history of the sport should not, we think, be allowed to proceed uncommemorated. There being, to our knowledge, no local bicycle club sufficiently well organized and equipped to offer themselves as your escort on March the Fourth, next, we take the liberty of offering our services in this connection.

"We will furnish, subject to your acceptance, a well mounted body of fifty motorcycle riders, members of our club, equipped in the official uniform recently adopted by the Federation of American Motorcyclists, with which our club is affiliated. This uniform is olive-drab in color, and makes a very military appearance.

"Assuring you that the acceptance of this offer by you would be appreciated as a signal honor by ourselves and all other devotees of the sport we represent, we remain,

"Very respectfully yours,
"THE NATIONAL CAPITAL MOTORCYCLE CLUB,
"per E. M. Dodson, president."

ST. LOUIS M. C. ELECTS

OFFICERS for 1913 were elected and committees were appointed to arrange for a series of runs, at the last meeting of the St. Louis M. C. The new staff is as follows: P. G. Kennett, president; D. P. Hyman, vice-president; W. F. Oster, secretary; George Peach, treasurer; R. R. Steel, captain; Harry Collins, lieutenant; A. Gerdel, sergeant-at-arms. A. M. Vagades was appointed director for two years.

NEWARK FANS PUZZLED

ANNOUNCEMENT is made that two companies have been formed to promote motorcycle racing in Newark, N. J., and race followers of the city are puzzled as to how the local situation will be handled. A few days ago the Newark Motordrome Amusement Co. was incorporated with a capital of $50,000 and almost at the same time it became known that another company had filed papers under the name of the Newark Stadium Motordrome, also capitalizing at $50,000. At latest reports the mystery had not been disposed of.

CLUB CHANGES NAME

AT a recent meeting of the Penn Avenue M. C., of Pittsburgh, Pa., it was decided to operate under the name of the Pittsburgh Press Motorcycle Club. This change was made in appreciation of what the Press has done for the good of the motorcycle in Pittsburgh during the past season. Officers of the club were elected at the same meeting, and are reported as follows: A. W. Stiner, president; J. A. Allgier, secretary; H. Devers, treasurer; T. E. Spencer, tourmaster, and J. J. Gross, lieutenant. Dr. R. V. Swanton was appointed chairman of the racing committee and J. J. Stanley, chairman of the house committee.

CLEVELAND PLANS

"WATCH our membership grow" is the slogan adopted by the Cleveland M. C. At a recent meeting plans were discussed for the coming season's program, and it was suggested that there be a three-day reliability run, a hill climb and a 24-hour continuous run in addition to the regular outings. At least one meet on the Randall track will be held during the summer.

PASCALL LEAVES HOSPITAL

ROY S. PASCALL, president of the New Jersey M. C., of Newark, has returned from the New York Hospital where he was operated upon for the second time in the hope of restoring the use of the fingers on his left hand, which were paralyzed in a spill from his machine in a race at Olympia Park, Newark, in 1910. Pascall was clerk of course at the Newark Motordrome, and proved an efficient track worker.

PROGRESS IN BAY CITY

REPORTS submitted by the retiring treasurer of the Bay City (Mich.) M. C. at the recent annual election showed the club to be in a flourishing condition. Charles Porter is the new president; Russell Burnbridge, vice-president; Thomas Madden, secretary; Carl Meisel, treasurer, and George Ford, road captain. Messrs. Stevenson and Billington were appointed lieutenants.

TO REVISE CONSTITUTION

A SPECIAL meeting of the Indianapolis M. C. has been called for the purpose of amending the club constitution. The recent membership campaign carried on by this club resulted in the addition of forty riders, making in all 130 members. Certain revisions have become necessary to meet to the requirements of the increased membership.

TO BUILD SAUCER

CHAIRMAN THORNLEY, of the F. A. M. Competition Committee, recently received a communication from D. W. L. Harvey, of the Portland *Evening Telegram*, stating that the Portland (Ore.) Motorcycle Club has arranged to form a $10,000 company for the purpose of building a saucer track.

J. F. PTACEK, agent for the Indian at St. Paul, Minn., reports selling twenty-eight 1913 models within the last three weeks.

PLANS for the first club run for the 1913 season by the Harrisburg (Pa.), M. C have been completed and the outing will be held Easter Sunday.

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M. M. A. HAS FRUITFUL CHICAGO SESSION

Action is Taken Looking Toward Big Display of Motorcycles at Panama Exposition—Committee Develops Plans to Help Dealers Obtain Freight Rate Refunds and President Coffman Agrees to Serve Out Term.

CHICAGO, Feb. 5.—Sixteen companies were represented at this morning's session of the Motorcycle Manufacturers' Association. Action was taken with reference to the proposed exhibit of motorcycles at the Panama Exposition. President A. B. Coffman was urgently requested to continue in office until the annual meeting in August, and he consented to do so. The traffic committee rendered an interesting report, and the show situation was discussed in an informal way.

THE REPRESENTATION.

The companies represented were as follows: American Motor Company, Guy Green; Aurora Automatic Machinery Company, E. J. Knight; Black Hawk Motor Company, A. W. Mitchell; Consolidated Manufacturing Company, Robert Hinds; Emblem Manufacturing Company, W. G. Schack; Excelsior Motor Manufacturing & Supply Company, Ignaz Schwinn; Harley-Davidson Motor Company, Arthur Davidson; Hendee Manufacturing Company, F. J. Weschler; Henderson Motorcycle Company, T. W. Henderson; Miami Cycle & Manufacturing Company, F. L. Valiant; Minneapolis Motor Company, F. E. Starnes; Pope Manufacturing Company, L. D. Harden; Reading-Standard Company, G. E. Atkins; Schickel Motor Company, H. A. Skinner; Allied Motors Corporation, A. J. Musselman, and the Excelsior Cycle Company, Peter Ohoro and F. D. Freeman. President Coffman occupied the chair, with Mr. Harden as secretary.

The Davis Sewing Machine Company, of Dayton, Ohio, was admitted to membership in the association at this meeting.

EXPOSITION PLANS.

In connection with motorcycle exhibit at the Panama Exposition, in 1915, Secretary Harden was requested to learn from the exposition management whether the latter could assure the manufacturers of motorcycles not less than 7,500 square feet of space in the Transportation Building. If such arrangements can be made, the motorcycle industry will be well represented at the exposition.

When, some time ago, after having left the Consolidated Manufacturing Company, Mr. Coffman offered to resign the presidency of the M. M. A., he was prevailed upon to hold the office until after the Chicago show, at least. Today, in view of the big success of the separate show proposition, the members of the association were less disposed than ever to agree to Coffman's resignation. The upshot of it all was that the Toledoan finally gave his consent to remain in office until the expiration of his term. So that his successor will not be elected until the annual meeting in Atlantic City next August.

INDEPENDENT SHOW TODAY.

It was the concensus of opinion that the separate Chicago show had come to stay. The only question in the minds of many had to do with the fact whether the motorcycle show should be held during the same week as the automobile exposition, or before or after the latter. There was also some talk in favor of confining the exhibition of motorcycles to one national show, instead of two, but there is hardly any likelihood of the New York show being abandoned. In any event, no action was taken in regard to the shows, this matter being postponed until the April meeting.

THE FREIGHT RATE MATTER.

Messrs. J. G. Murray and C. F. Duggan, traffic managers of the Harley-Davidson and Hendee companies, respectively, who, with Arthur Davidson and A. B. Coffman constitute the traffic committee of the association, were instructed to prepare a letter to be sent to dealers who are entitled to a refund on payments for freight on motorcycles shipped to points west of the Mississippi during the past two years. They will send a draft of this letter to the secretary of the association, who in turn will send a copy to each manufacturer, so that the latter may give the information to all of their dealers in the affected territory.

This letter will recite the fact that on November 11, 1912, the Interstate Commerce Commission rendered a decision ordering a reduction of the freight rate on motorcycles in less than carload lots from two and a half to one and a half times the first class rate. The reduction applies not only on future shipments, but also to shipments made during the past two years, on all of which the consignees will be entitled to a refund provided they present their claims in the proper form. For example, the difference between the old and the new classification will entitle a dealer in Texas to $5.01 on each 300-pound shipment from the East or Middle West during the two years preceding the presentation of his claims.

HOW TO OBTAIN ACTION.

In order to obtain a refund on these shipments the dealer should submit a statement addressed to the secretary of the Interstate Commerce Commission, American Bank Building, Washington, D. C. This statement should cite all the shipments made during the past two years, the dates of shipments and arrival, the name of the railroad in each case, the amounts actually paid and the amounts which should have been paid under the new classification of one and a half times the first class rate. These statements should be accompanied by all the freight bills. If the latter are not available, duplicates may be obtained from the railroad agents and in such cases the dealer must give a bond indemnifying the shippers against any obligation on the original bills.

In filing such statements dealers should refer to the decision rendered by the commission, November 11, 1912. Upon receipt of properly prepared claims the Interstate Commerce Commission will notify each dealer of the receipt of the same, and also order the railroads to make the proper refund. If no adjustment is made within a reasonable time, say sixty days, dealers having filed their claims should notify the secretary of the commission.

THE Excelsior General Supply Company has a complete line of accessories on show. Smiling Jim Morrow was on the job, as were E. A. Grover, J. Nicol and M. Alsen.

PIERCE SINGLES AND FOURS

SINGLE and four-cylinder models, as exhibited at the New York Show, make up the display of the Pierce Cycle Company in Chicago, and the company's interests are being ably cared for by H. G. Pauer. Owing to the increasing interest in high-powered machines in western territory, the Pierce four is coming in for more interest than it attracted at New York, where the attention of visitors was about equally distributed between the single and four-cylinder types.

THE JEFFERSONS

A. F. HABERMAN, Erwin Klug and Edward Punzel are in charge of the exhibit of the Waverley Manufacturing Company, which includes a 4 h. single and an attractive twin model rating at 7 h. The attention of visitors at the Waverley booth is occupied chiefly with the novel springing system in the Jefferson machines.

SCHICKEL MODELS

SIMPLICITY is the predominating feature of the exhibit of the Schickel Motor Company, of 59 Garden street, Stamford, Conn. As at the New York show, the sole representative of the two-stroke principle is found at the Schickel booth. The line of the Schickel Motor Company for 1913 consists of four models, the 5 horsepower belt-drive and 5-horsepower chain-drive, listing at $225 and $230, and the "Big Six" chain and belt drive machines, listing at $235 and $240, respectively. The neatness of design and the clean-cut and attractive lines of the Schickel are creating an excellent impression.

THE POPE LINE

ALMOST identically the same exhibit that occupied the stand of the Pope Manufacturing Company, at the New York Show is being featured at Chicago. The four types that make up the Pope motorcycle line are being effectively displayed in addition to bicycles and supplies. L. D. Harden, manager of the company's motorcycle and bicycle department is in charge of the stand, and is being assisted by M. G. Littlefield, O. J. Oberwegner, H. M. Musselman, Otto Gidenswager and R. H. Smith.

HENDERSON DISPLAY

VISITORS at the stand of the Henderson Motorcycle Company, of 1158 Cass avenue, Detroit, are being welcomed by President T. W. Henderson, Vice-President W. G. Henderson and R. H. Wheat, John P. Garner and John Bice, of the Henderson branch in Chicago, are lending valuable assistance. The Henderson display is identical with that at the New York Show.

WITH THE MONARCHS

PRESIDENT W. H. Ives, of the Ives Motorcycle Corporation, and Lincoln Holland, of the sales staff, are to be found at the Show booth of the Owego company, where the 1913 Monarch models are exciting favorable comment.

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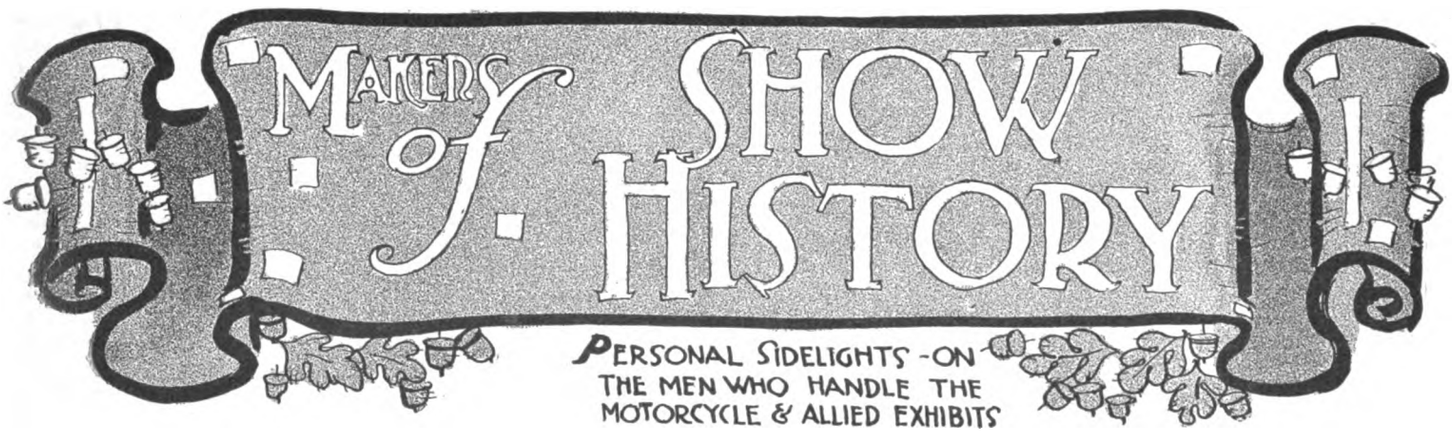

EVERY time Tom Henderson was approached on the subject of being the next president of the M. M. A. he would hurriedly change the subject to Henderson motorcycles. He said that he sold more motorcycles the first two days at Chicago than he did the whole week at New York. R. W. Wheat got in his good work when it came to Los Angeles contracts.

The Purdy Bros. exhibit shows their new four-tone horn, which is being well demonstrated by Jack Purdy, the inventor. R. T. Purdy and H. W. Meyer are also "tooting the horn."

Fred C. Robie paid a visit to the show and was well pleased with the showing made. He is now connected with the International Motor Company, as manager of the Chicago branch. Mr. Robie was accompanied by his wife.

The Reading-Standard Company was very well represented, and Sales Manager G. E. Atkins has been kept busy writing orders. He is assisted by C. R. Jones, W. E. Dewey, J. E. Starr, P. C. Thom and O. F. Sumbaum.

Sales Manager Kirk, of the Excelsior Motor Manufacturing and Supply Company, was so pleased with the Chicago show that he stated he did not care whether they held any more shows at New York or not. Ignaz Schwinn was kept very busy entertaining the dealers, and he is some entertainer when it comes right down to showing a good time. Frank Schwinn says, "New York for mine," as he considers a trip to New York once a year a good vacation. "Gid" Haynes, their popular road man, was kept very busy steering the representative of MOTORCYCLE ILLUSTRATED away from the Excelsior booth.

Sales Manager Knight, of the Aurora Automatic Machinery Company, is on the job very early in the morning. Retail Sales Manager Edward Rischel and George Huetasel are always extending the glad hand of welcome. J. D. Hurley is present and busy as usual.

The "youngster," Dave Smith, was there as usual with his many cigars and eight cups of coffee each day. He was chuck full of Splitdorf magneto talk. M. E. Toepel was doing the explaining at the Splitdorf booth, by the way.

The Black Hawk has a very neat machine exhibit which is making a hit. R. W. Gould, manager; A. W. Mitchell, president; A. J. McCullom, superintendent; A. L. Yeatman and Charles Desalvo are on the job.

W. J. Ash, of the Chicago Cycle Company, had just returned from a successful trip from the coast, and livened up the Chicago Cycle booth considerably. Ash is known to be one of the most clever lamp salesmen in the country, and has a way of getting big results.

The F. W. Spacke Machinery Company stand is, as usual, in charge of Sales Manager Lawrie, who certainly knows how to explain motors. Fred Spacke and D. Shorman Spacke were also very much on the job.

Wheeler & Schebler were represented by their famous pair, Okey and Briggs, who are known to be capable of some clever team work when it comes to selling carbureters.

E. L. Morse was in charge of the Victor Auto Parts exhibit, and when not busy selling lamps he was spending his money on sidecars, etc. William and Ed. Corcoran were also on hand meeting the trade.

George W. Sherman was very active on the Motorcycle Manufacturers' Association committee, and also in demonstrating a new carbureter for motorcycles.

H. M. Huffman, the real "live wire" behind the Dayton, was on hand to assist the Beckley-Ralston people, who had the Dayton on display. J. C. Lesler, Colonel Huffman and G. H. Gorman were also on deck.

E. C. Wolf, of the Tucker Woodwork Company, of Sidney, Ohio, got acquainted very rapidly with the motorcycle trade, and did very good work as to sales.

Frank Hart announced his intention of riding his Indian T. T. back to New York after the show, and he will take some one along in his Rodger sidecar, which he has attached to his machine during the show.

The Van Cleef exhibit was one of the prettiest at the show, on account of its attractive sign advertising the Dutch Brand products, and because Miss Gabrielle James, who was dressed in a Dutch costume to correspond with the trade mark, fitted the occasion admirably. Noah Van Cleef was in charge and his two brothers, Felix and Maxine, who travel for the company, were also in the booth. Paul Van Cleef, the chemist, was too busy at the factory to find time to visit the show. The firm is working night and day to fill orders. Their sign was lit up with small electric bulbs inside of the midget tail lamps which they are producing.

The Graton-Knight Company was represented by W. W. Shoemaker and G. W. Urhu hart. Mr. Shoemaker admits that he learned something more about belts, and it was a rural mail carrier who had to teach him. Must have been pretty weighty information if W. W. didn't possess it.

The Hendee Manufacturing Company, as usual, has its long string of salesmen at the show, with F. J. Weschler and E. M. Jackson in charge. The others were Wm. Teubner and Ray Seymour, of racing fame; Z. Godin, J. E. Hogg, D. E. Dunn and P. B. Whitney, the latter Chicago branch manager, and Messrs. Reams and Cameron.

The Harley-Davidson booth did not have the stuff that made Milwaukee famous on hand, so they gave out packages of cigarettes with their imprint on each cigarette and box. They were "some smokes" at that. Arthur Davidson acted as chief at the exhibit. George Puls was there also, with H. W. Haskall, J. G. Murray, J. G. Kilbert and W. Kleinenhagen; Advertising Manager S. Lacy Crolius arrived on Tuesday.

Just as the show was about to close Monday night, G. H. Hamilton, of the Federal Rubber Company, arrived to take in the exhibit. He was well pleased with what he saw.

H. T. Roberts, of Chicago, played the part of visitor at the motorcycle show, as he decided at the last moment not to exhibit.

Frank L. Valiant, chief space appropriator for the Merkel company, gave a theatre party for his friends Wednesday evening.

Lee Humiston's now famous Excelsior record breaker was on exhibit at the Chicago show and it attracted its due share of attention.

Harry Svensgaard, of Detroit, was one of the arrivals for the show on Wednesday.

R. W. Sayre, of Los Angeles, and P. L. Ruplinger, of South Dakota, made their headquarters at the Harley-Davidson exhibit most of the time.

F. B. Rodger and Hugh Sharp, the publicity men from Harley-Davidson plant in Milwaukee, were on the job spreading the fame of the "Silent Gray" products.

C. J. Welch, of the United States Tire Company, entertained a number of prominent motorcycle manufacturers Monday evening at the College Inn.

The Pope Manufacturing Company has its complete line of motorcycles and bicycles on display. L. D. Hardin, sales manager, was at the helm. M. G. Littlefield, R. H. Smith, H. M. Musselman, Otto Gudenschwager, and Otto Oberwegner were also present. Oberwegner is spending a very quiet week, as Mrs. Oberwegner is on hand to see that he turns in early each night.

The Ives Motorcycle Corporation is represented by Lincoln Holland, Jr., N. E. Yapp, W. H. Ives and E. C. Carroll.

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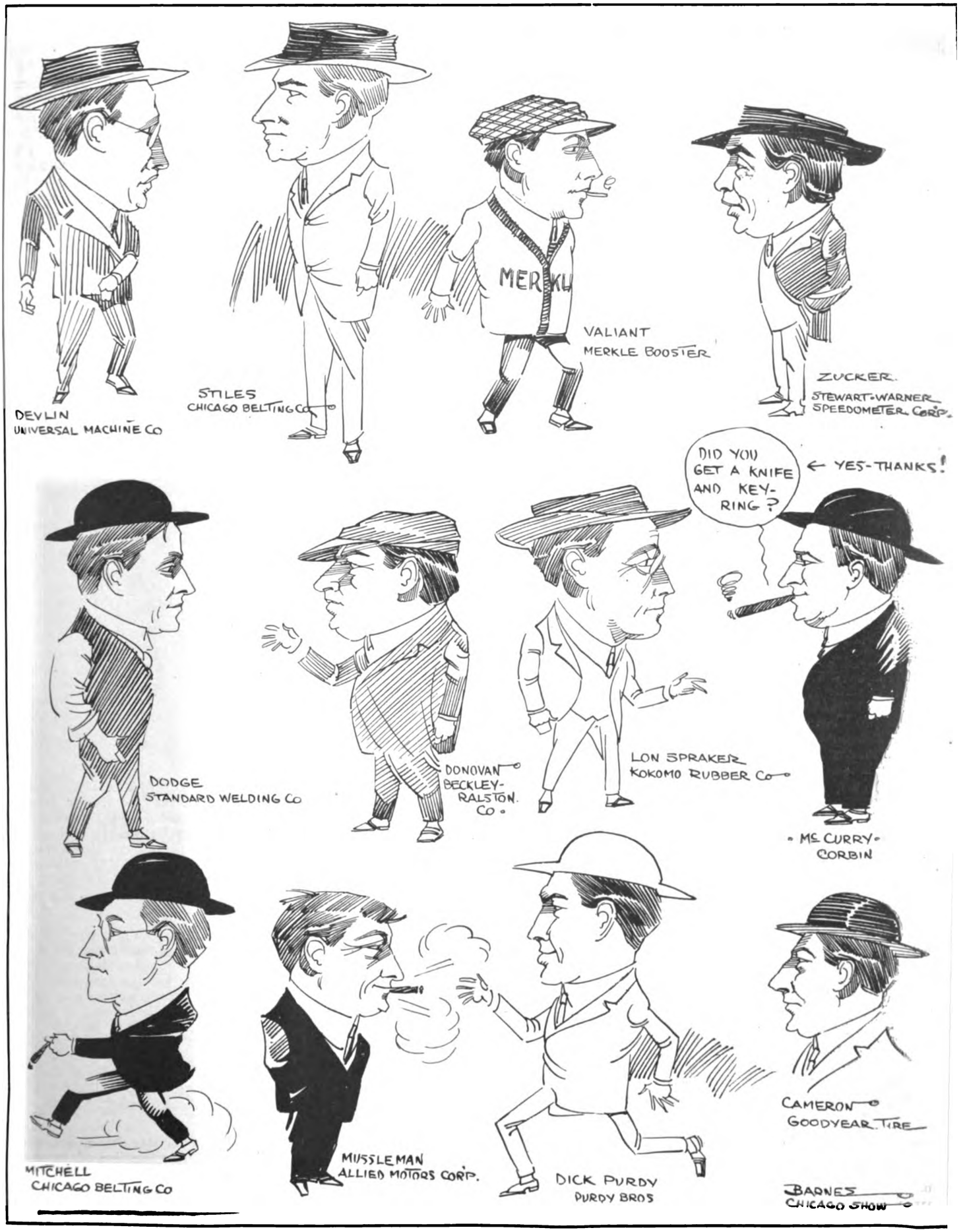

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STILL IN A PERSONAL VEIN

SALES MANAGER J. C. FERGUSON, of the Eclipse Machine Company, was, as usual, in charge of the Eclipse booth. Mr. Ferguson is known as one of the best mixers in the industry, and is very enthusiastic over the wonderful process the Eclipse clutch has made in the past year. He was assisted by T. N. Biddle, the Morrow brake expert; M. McPherson, W. Lupton. President Ralph D. Webster was also there as an early arrival.

LINCOLN HOLLAND, JR., of Los Angeles, who was in attendance at the show, was pulling for the west for the next F. A. M. convention. "The climate is great for riding, and the country is the most progressive to be found. It would only be doing the west justice to hold the next F. A. M. convention in Denver, as thousands of. riders will swarm to attend."

W. E. KLUG, of the Waverly Manufacturing Company, showing at Chicago, has announced that the Waverly concern expects to go after racing a little stronger this season with its stock models. The company is planning to enter a single and twin in the road race at Elgin next summer. W. G. Hamilton, Ray Comstock and Rudolph Thoms will ride for the company.

WHEREVER there is a motorcycle show there is always Don C. Spraher, the man behind the Kokomo Rubber Company. He was assisted by S. G. Rigdon and R. R. Bowen at Chicago.

ARTHUR DAVIDSON was a day or two late in arriving at the Chicago show, and at first it was believed that he was trying to make the trip from the east in his new Cadillac which has just been delivered to him. Later, however, it was learned that Mr. Davidson took the Pullman, but before he did that he is reported as spending much time in the East talking up the merits of his new motorcar. "I should worry," said Arthur when he pulled in finally; "we are all sold up on Harleys, anyhow."

J. C. FOX, president of the Fox Manufacturing Company, of Seattle, Wash., experienced all kinds of weather getting to the Chicago show. He claimed to be the "farthest north" exhibitor and no one disputed him. "When I left Seattle," he said, "there was fine spring weather, but before I had traveled eastward many hours I experienced 22 degrees below zero weather in North Dakota. The train was late on account of storms. It took me four days to get to Chicago.

"The Pacific coast highways and roads are improving fast," said Mr. Fox. "Roads leading from Seattle to Tacoma and to Mt. Rainier National Park are being improved extensively, and with the fine riding weather all the year around on account of the warm Japan current on the coast, we believe we have the best country for motorcycle riding, with the exception of California. Things are booming in the West and dealers should have no trouble in disposing of all the motorcycles they can get."

THE members of the trade press were given their annual dinner in Chicago Wednesday evening by W. G. Schack, of Emblem fame. The typewriter teasers were taken to the Illinois Athletic Club, as they were last year, and after the dinner the party went in for bowling. "You couldn't have a party without bowling," said Mr. Schack.

THE Fowler Carnes Company, of Aurora, had a large sign showing a fat Dutchman with an F. A. M. uniform and a notation as follows: "We fit them all." I. N. Wilson was in charge, assisted by E. Lamb and J. Adams.

WHEN passing the Allied Motors Corporation booth one noted A. J. Musselman, E. H. Doud, Frank Gilfeather, Thomas F. Rush, C. R. Wagner and Calvin Brown—everyone a hustler.

A. FREED, of San Francisco, the well-known Thor distributor, was an early visitor to the Chicago show. His patent on the Duck shock absorber was allowed, when taken to court, and Freed is contemplating getting after infringing manufacturers.

H. L. OGG, of Newton, Iowa, inventor of New-Lite generator outfit, was present at the show demonstrating the features of the New-Lite. The outfit has sufficient capacity for the largest automobile headlight, tail-light, speedometer light and electric horn, and delivers a constant supply of current regardless of driving speed. The fittings are well worked out for every machine on the market. Jenkins & Co., of Des Moines, Iowa, are the sales agents.

THE merits of the De Luxe twin were explained by F. D. Freeman, James C. Baine, Ernest Unger, superintendent; Joe De Salvo (who kept his hand on his pocketbook), John Merz, of Indianapolis, and Smiling Pete O'Horo, who was also kept busy shaking hands and buying distilled water for his hosts of friends.

THE Chicago show prides itself on bringing together two of the greatest pool players in the industry, W. W. Whitesell, Pacific coast champion, and Excelsior distributor, and W. Shoemaker, champion of Pennsylvania, and also of the Graton & Knight Company. They are going around with chips on their shoulders looking for a match with another pair for a dinner as a stake.

THE Morrison-Ricker Manufacturing Company, of Grinnell, Iowa, makers of Grinnell gloves, have a very elaborate display of motorcycle gloves. B. G. Ricker and Frank Fabian are in charge.

J. R. JENKINS and L. A. Schuben are busy demonstrating the Jenkins tandem attachments, and H. L. Ogg, inventor of the New-Lite generator is also busy showing the New-Lite outfit. A day before the show Jenkins had a fire in his store which destroyed all his show literature, but he managed to have some more printed in Chicago in time to pass around by Monday night.

THE Stoll Dream Tandem attachment is being very well demonstrated by F. M. Stoll, who is ably assisted by Walter W. Whiting. Whiting is also the Harley-Davidson agent in Denver, and a hard-working booster.

RAY SEYMOUR, of the Hendee Manufacturing Company's traveling staff, who was present at the show, states that he is being tempted to re-enter the motorcycle racing game for next season. "If the proposed track circuit is materialized," said Seymour, "I will probably go back into the game. Racing would then be more worth while. However, I am very well satisfied with the work I am doing now, so I don't have to worry about the future just at present."

AT the New Departure booth were found the well-known Griff-Horton duo. A. E. Griffiths, M. J. Horton and DeWitt Page were kept very busy demonstrating New Departure hubs and brakes, and were still busier giving out their souvenir watch chains.

THE Chicago Cycle Company had a bench covered with its well-known cushions, and seated thereon were H. E. Kenyon, H. P. Hanson, C. J. McCormick, Victor Sandeen, D. B. Stevenson, E. B. Steffen, E. L. Kendall, W. J. Ash (the lamp expert), and A. J. Mitchel, the racing phenom., who now travels for them. The firm had a very complete line of motorcycle and bicycle accessories.

THE Consolidated Manufacturing Company had its flying squadron on the job, with Robert Hinds and Frank Cornish in charge. George (Newlywed) Squiers, "Shorty" Matthews, who is now the father of a future racer; Advertising Manager Paul J. Bailey, H. M. Baird, Carl A. Leander, R. L. Binney, superintendent of the tube department; Claussen Bros., Chicago agents, and Charles, the mascot, were there.

AT the Emblem booth the following were on the job: W. G. Schack (when not very busy selling motorcycles he was on the lookout for a bowling match); W. H. Snyder, Columbus agent; Raymond Snyder, A. P. Colwell, R. M. Brown, Chicago agent, and his assistants, George E. Miller, R. B. Cunliffe and Edward Dooley.

ADVERTISING MANAGER A. H. BARTSCH, of the Bosch Magneto Company, is responsible for the statement that no battery motorcycles are at the show, and, according to his figures, the Mosch magneto will be found upon 63 of the 77 machines displayed. Bartsch figured it out that 82 per cent. of the machines are equipped with the Bosch.

THE Corbin Screw Corporation had more souvenir knives than usual, and it was there that the crowd was thickest. Hanop states if he wasn't kept so busy handing out knives, he could have written up more orders. C. J. McCuny, the little fat man of the Chicago office, was Hanop's side kicker, and when not demonstrating the brakes, speedometer, etc., he was busy entertaining the fair sex. A. W. Westlake and R. A. Sundvahl were also on hand. Wm. E. Diehl, manager of the Corbin Chicago branch, was the overseer.

THE Badger Brass Manufacturing Company showed a complete line of motorcycle lamps and was in charge of W. A. Bell, H. G. Haft and C. E. Crawford. R. H. Wells found time to get away from the Auto show, and was well pleased with the Independent exhibition.

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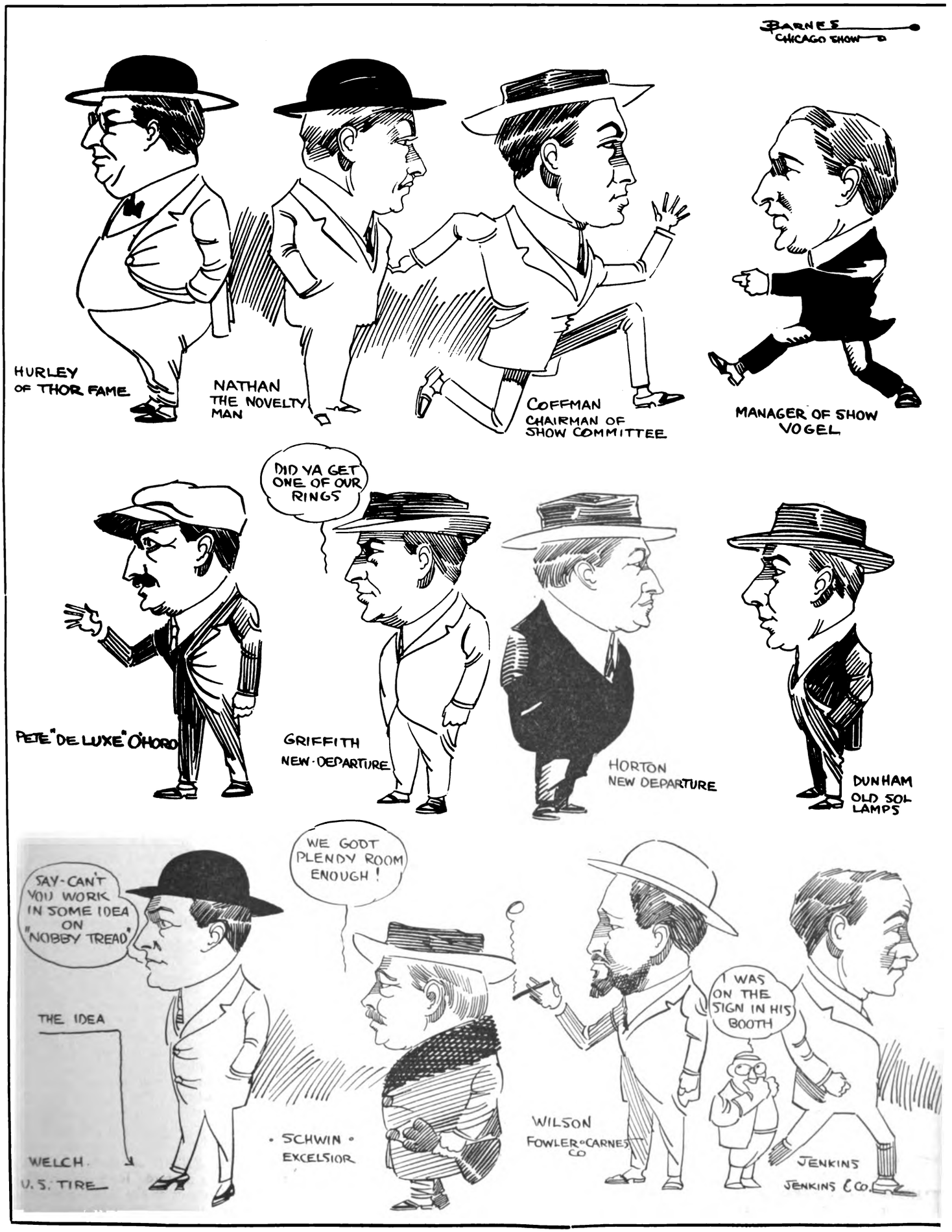

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HEARD in the BOOTHS

DURING the show much talk was heard among the dealers and manufacturers in regard to holding only one motorcycle show a year, and that at Chicago. It was the consensus of opinion that it would not be long before such a plan would be adopted.

"Watch the Thermometer Grow" was the slogan of the Chicago Motorcycle Club, which waged a membership campaign at the show.

Shorty Matthews was an interesting spectator at the show. He has just returned from a trip in Iowa which he said was a very successful one. "I found that I have brought Iowa up as second to the banner State of Ohio for Yale motorcycles this year," said Matthews.

It was surprising to hear so many motorcyclists talking about the proposed Elgin road race of 250 miles, scheduled for next summer. "Shorty" Matthews intimated that he would ride in the big event, and that his mount would probably be a seven horse "Jap" from across the Atlantic.

A big electric sign, announcing the motorcycle show, was in evidence on the opposite side of the street to the entrance of the Automobile show in the Coliseum.

Every exhibit booth was furnished with a writing desk and a bottle of distilled water. And some folks really drank the water.

Large red tags, bearing the words, "I am for Denver for the F. A. M. meet," and "Denver does things," were distributed among the visitors and dealers on Tuesday. The tags were gotten out by Denverites soon after they saw that the Chicago people handed out printed tags. Enthusiastic campaigns for Denver and Chicago were waged by the boosters.

Sixty-two per cent. of all the motorcycles on exhibition were United States tire equipped, according to the figures of C. J. Welsh, of that company.

All the booths at the show were uniformly carpeted with green canvas, while the hardwood floors served alone for the aisles.

Smoking inside of the show was under ban all week, and most of the visitors were requested to put out their cigars before entering. Every precaution was taken against fire.

The pleasing manner in which Miss Vera Matthews (no relation to "Shorty") explained the Feilbach scored a hit, as she certainly does understand the two-wheeler. Messrs. W. A. Feilbach and Clantz were there to help Miss Matthews.

A Harley-Davidson motorcycle was kept running most of the time at the firm's booth, and as some sections of the motorcycle's working motor were cross sectioned, the show visitors always crowded about to see the inner operation of the gray machine.

Good steel knives were given away as souvenirs at the Corbin Screw corporation stand.

A working model Bosch magneto, on an enlarged scale, was used as the chief attraction at the Bosch booth.

Wm. E. Eccles, of the Greyhound Motor Company, claims the honor of selling the first three sidecars at the show. Before he had uncrated his sidecars, E. L. Morse gave him an order for a $125 aluminum body car to be shipped to Los Angeles at once. Morse will use this car in covering the Pacific coast territory. W. W. Whitesell, of Los Angeles, also gave an order for one of the same models to be shipped at once, as did C. L. Waters, of the Motorcycle Equipment Company, who will make personal use of the car. It has been demonstrated at the show that the highest priced cars are most in demand. William Chadeayne was on the job in the Greyhound booth.

The Allied Motors Corporation has on its machines the new Ericson magneto, manufactured in Buffalo. Frank W. Pardee, vice-president and general manager, who is at the show, states that they will be ready to fill all orders within the next thirty days.

The Minneapolis Motor Company's exhibit is in charge of F. E. Starnes, General Manager H. L. Wessling, and J. P. Erich. Mr. Starnes says there are fine prospects ahead for the Minneapolis commercial van for parcel post service.

One of the largest orders taken early in the show was that of the Aermore Manufacturing Company, which sold 104 Rodger sidecars to the Chicago branch of the Miami Cycle and Manufacturing Company. G. V. P. Lansing, president of the Aermore company, turned the trick.

Many manufacturers of motorcycles were reporting carload lot contracts and duplicate orders taken by Tuesday night. Business at the show was very brisk, both big and little business.

The attendance figures for Tuesday, the second day, broke the first day's record by about 500. J. S. Vogel, office manager, reported 3,500 in attendance on Tuesday and 3,000 present Monday.

Freddie Huyck, of the Merkel stand, reported the first sale of the show. At three o'clock Monday afternoon he sold and received payment for a Merkel two-speed, 7 h., self-starter, with sidecar attachment. The motorcycle was sold for $335 and the side car for $85. The purchaser was Burton Adams, of Chicago.

The Chicago Belting Company exhibit shows a full line of belt dressings, done up in neat packages, as well as the famous Sea Lion belt. F. A. Mitchell, Lee H. Stiles and A. T. Scherer are doing the honors.

The Hughes & Wessling Company, a copartnership for the last five years, was recently incorporated for $12,000, under the firm name of Hughes & Wessling Co. The firm will devote itself entirely to the manufacture of electric lighting equipment for motorcycles. President D. C. Hughes is a mechanical and electrical engineer, a member of the American Society of Mechanical Engineers; he will be in charge of the manufacturing end of the business. H. N. Wessling, as secretary-treasurer, will center his efforts in the sales department. Mr. Wessling is a motorcyclist of considerable note, having covered over 100,000 miles on American and European roads in the past ten years, and as a result he is thoroughly familiar with motorcycle conditions here and abroad.

The Great Western Manufacturing Company is exhibiting bicycles. They state that the motorcycle proposition is still under consideration. C. A. Lonn, A. E. Lonn and E. J. Lonn were in charge. They gave out canes and pennants as souvenirs.

CLUB TO HAVE AUCTION

A MEMBERSHIP of 116 is now claimed by the newly organized Allegheny (Pa.) Motorcycle Club. The clubrooms have been furnished with pool tables and all the other necessary fittings, and in order to meet the special debt thus incurred it has been decided to hold an auction sale March 13. Letters have been sent to manufacturers asking for donations for the auction, the entire proceeds of which will go to pay for the new furnishings. Harry L. Neff, local dealer in motorcycles, bicycles and sporting goods, will exhibit all the donations at the Auto Show at Pittsburgh, March 1-8.

INDIANAPOLIS BANQUET

F. I. WILLIS, of Indianapolis, former president of the F. A. M., acted as toastmaster at a recent banquet of the Indianapolis M. C., which was held at the DeWeese Restaurant. Prior to the affair a lively business session was held at the clubrooms. As toastmaster, Mr. Willis proved very popular and held the crowd together until 1.30 a. m. Erwin Baker, who is now making a trip through the South, was present and was among the speakers. The banquet was the outcome of the recent membership campaign, which was conducted by two teams, the losing team being the hosts.

WILLIAM LENAUL, of Sheboygan, Wis., is making a motorcycle trip from Chicago to New Orleans and around the coast to New York and thence back to his home. He expects to spend four months on the road.

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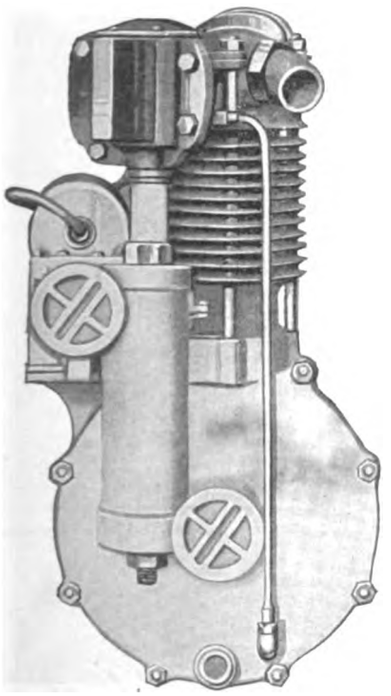
JENKINS EXHIBIT.

ALMOST interesting show exhibit is that of Jenkins & Co., factory representatives, of Twelfth and Locust streets, Des Moines, Ia., which embraces a number of features not likely to be overlooked by the thoughtful motorcyclist. The firm's most attractive offerings are the "Jenco" spring carrier and an improved lighting outfit. These new products will be described and illustrated in the next issue.

THE PHANTOM MOTOR

PHANTOM motors, both single and twin, are being displayed at the stand of the North Chicago Machine Company, of North Chicago, Ill. These products feature silent running, enclosed working parts running in oil,



accessibility, simple and efficient oiling system and higher compression and added power owing to the enveloping of the exhaust valve by the incoming gases. The single-cylinder motor, illustrated herewith has a bore of 3¼ inches and stroke of 3 43/64 inches. It is 19 inches high and weighs complete 69 pounds. The crankcase is made of aluminum.

PERFECTO TAIL LAMPS

IMPROVED "Perfecto" tail lamps for motorcycles, in both the gas and electric types, are being featured at the Chicago Show by the B-L Sales Company, 400 Monadnock building, Chicago, and interest in these offerings has been reflected in the unusual activity of the company's stand attaches since the opening of the show. The Perfecto tail lamp is given a life guarantee, will not jar out under the most severe tests, cannot be kicked off accidentally in mounting or dismounting and complies with the State laws regarding rear lights. The B-L firm also handles the Simplex water economizer nozzle, for use in garages, and its full line will include a wide variety of automobile and motorcycle sundries.

HARVEY BERNARD, the well-known racer, dropped in just long enough to shake hands with his show friends.

FEILBACH MOTORCYCLES.

FEATURED by a long-stroke motor of the automobile type and characterized by simplicity throughout, the Feilbach Limited, a newcomer in the ranks of single-cylinder motorcycles, is a mount calculated to create a distinctly favorable impression. It is produced by the Feilbach Motor Co., of 1144 Holton street, Milwaukee, Wis. One of the special features in the Feilbach is the improved spring seat post which embraces a horizontal shock absorber, working within the second bar of the frame. This construction permits of an ideal combination of flexibility and strength. Another noteworthy detail is the positive oiling system, which insures economy while giving all working parts of the motor their proper supply of the lubricant.

The Feilbach motor generates 5 h. and has a bore of 3 5/16 inches and a 4-inch stroke; the displacement is 34.50 cubic inches. All shafts are extra hardened and running in bronze bushings. The intake valve is of the mechanical type with adjustable tappet. The valves of this motor are at the front, instead of at the side, thus giving perfect balance and better cooling. General specifications of the Feilbach are as follows: Concealed double grip control, Heitger 1913 carbureter, loop frame, combined truss and spring fork, Eclipse free engine clutch, Corbin brake, Persons, Troxel or Mesinger saddle, Herz magneto.

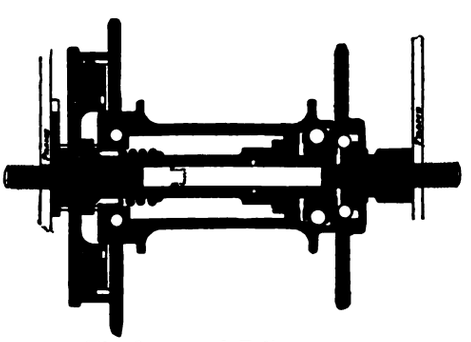
Those who are receiving visitors at the Feilbach stand are: Miss Vera Mathews, William Feilbach and William E. Glantz.

"ANDERS" SIDECARS

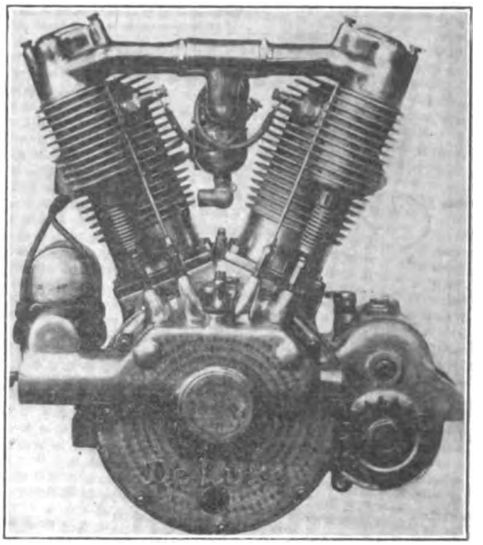
MOTORCYCLISTS who contemplate fitting sidecars to their machines for the coming season are finding much to interest them in the exhibit of the National Cycle Accessory Company, of Aurora, Ill., at the Chicago Show. What is probably the feature offering at the stand is a torpedo sidecar, fitted with side door and finished in white enamel and genuine buff leather. It is equipped with a leather top and curtains, so that the passenger is protected under all weather conditions. The firm's line will be fully described in the February 20 issue.

BIG ECLIPSE LINE

AMONG the most important features of the display of the Eclipse Machine Company, of Elmira, N. Y., is the new sidecar knockout axle, which has been adopted by some of the leading manufacturers of sidecars. Sales Manager J. C. Ferguson is elated over the fact that the booth of the Eclipse company contains one of the largest lines of accessories shown. Other representatives of the company seen at the show are Ralph D. Webster, vice-president and general manager; T. N. Biddle, known as the "Old Morrow Man"; Wilbur Lupton and M. G. MacPherson.



The Improved Eclipse Brake.

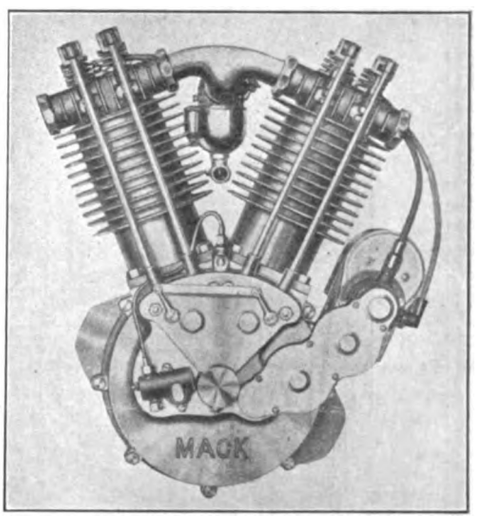


New De Luxe Twin, Exhibited by the F. W. Spacke Machine Co., of Indianapolis.

BANQUET AND ELECTION

PRIOR to the annual banquet of the Mansfield (Ohio) M. C. officers for 1913 were elected. F. R. Dippman was re-elected president, and John F. Meyer was re-elected road captain. The other officers are John Fay, vice-president, and C. O. Lister, secretary-treasurer.

MOTORCYCLE clubs affiliating with the F. A. M. during the week ending February 2 are reported by Secretary Gibson as follows: The Bellevue M. C., Bellevue, O.; the Dixie M. C., Roanoke, Va.; and the Kensington M. C., of Philadelphia, Pa.



MACK MOTORS

AT STAND No. 66 there is a striking exhibit of Mack motors, both single and twin types, as manufactured by the Universal Machinery Company, of Milwaukee, Wis. These power plants, 4 and 5 h. in the singles and 7 and 9 h. in the twins, have valves-in-the-head construction and all parts are interchangeable and ground to micrometer exactness. The firm calls attention to the exceptionally free intake and exhaust provided by the Mack valve system, and to the fact that greater power is afforded, for a given size of cylinder, than is furnished in other constructions. The positive mechanical pump is covered by one of Mr. Mack's patents.

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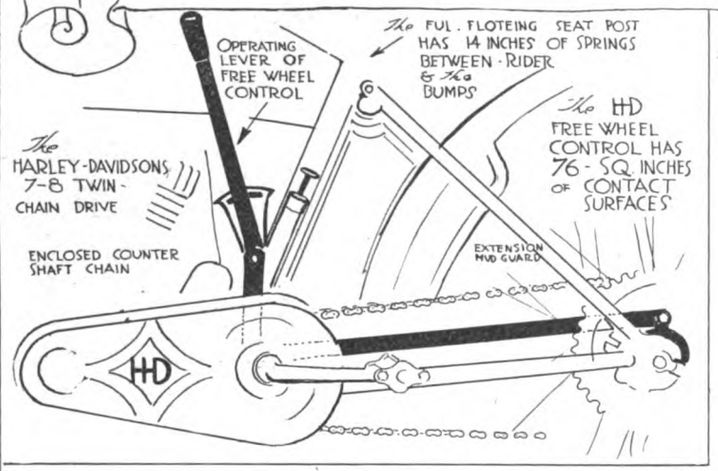
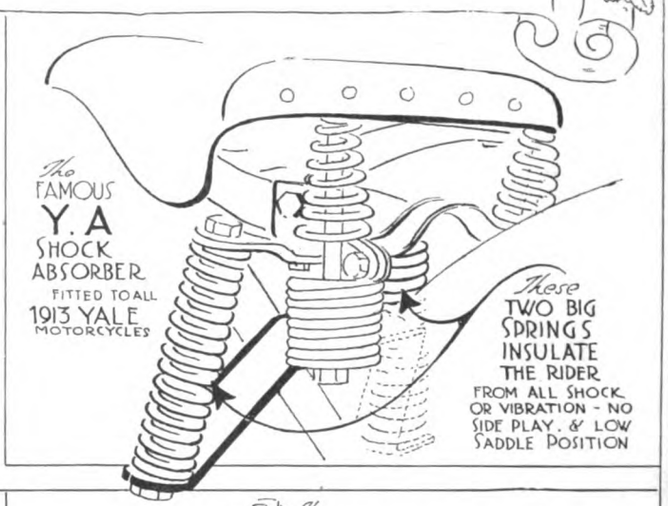
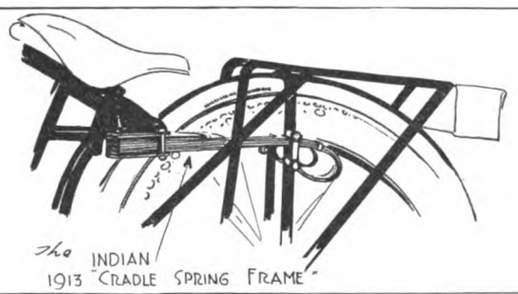
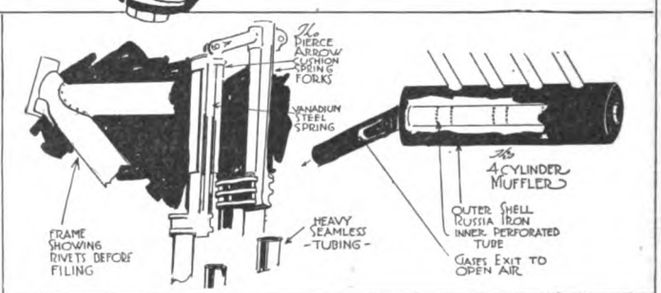
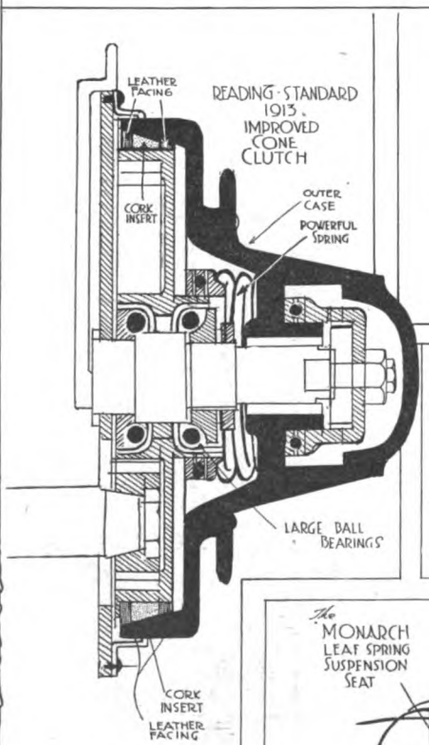
SNAP SHOTS AT DETAILS OF the CHICAGO SHOW MACHINES

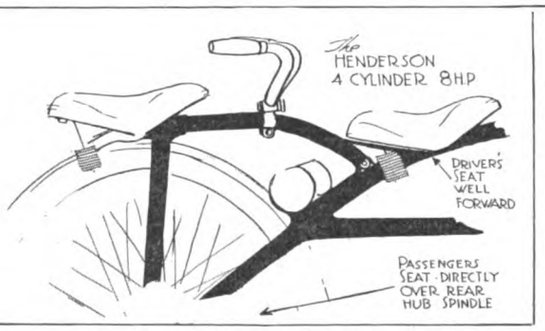


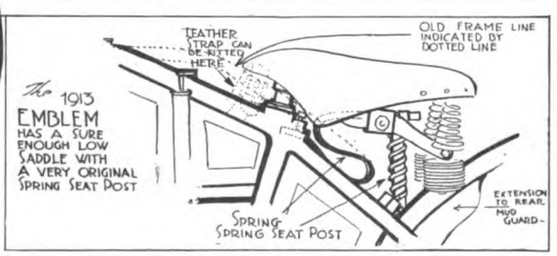


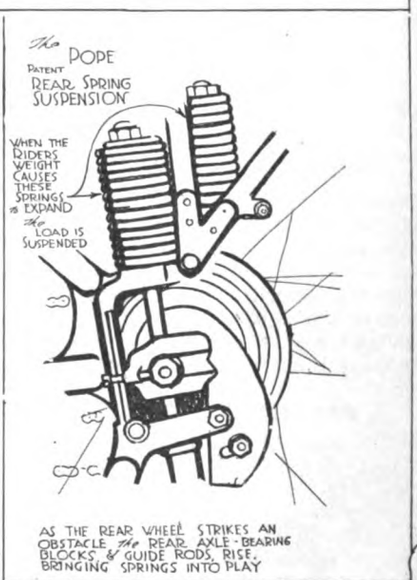


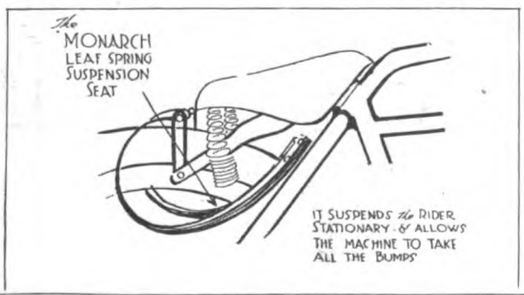


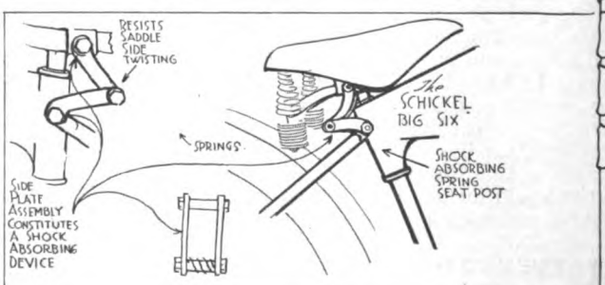












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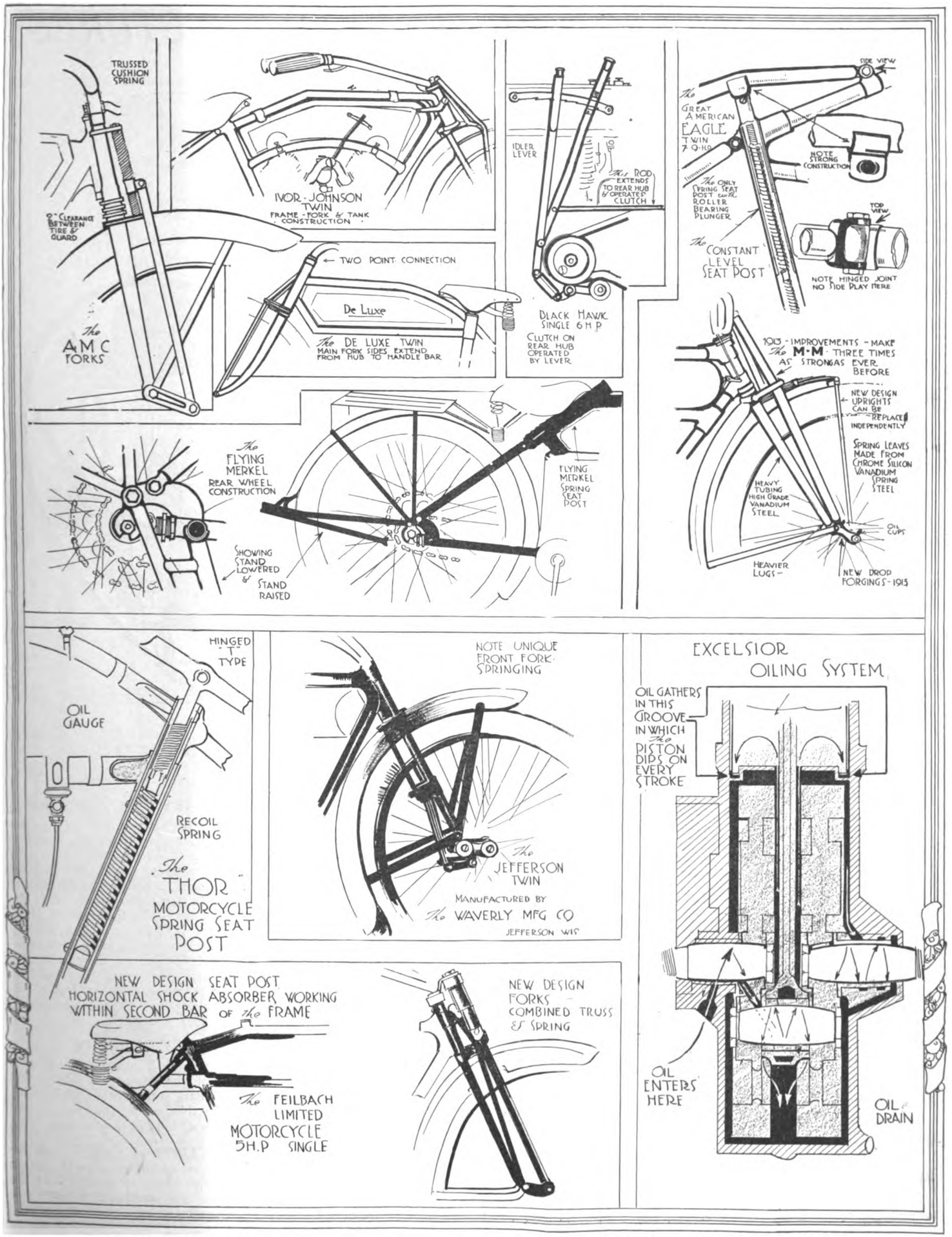

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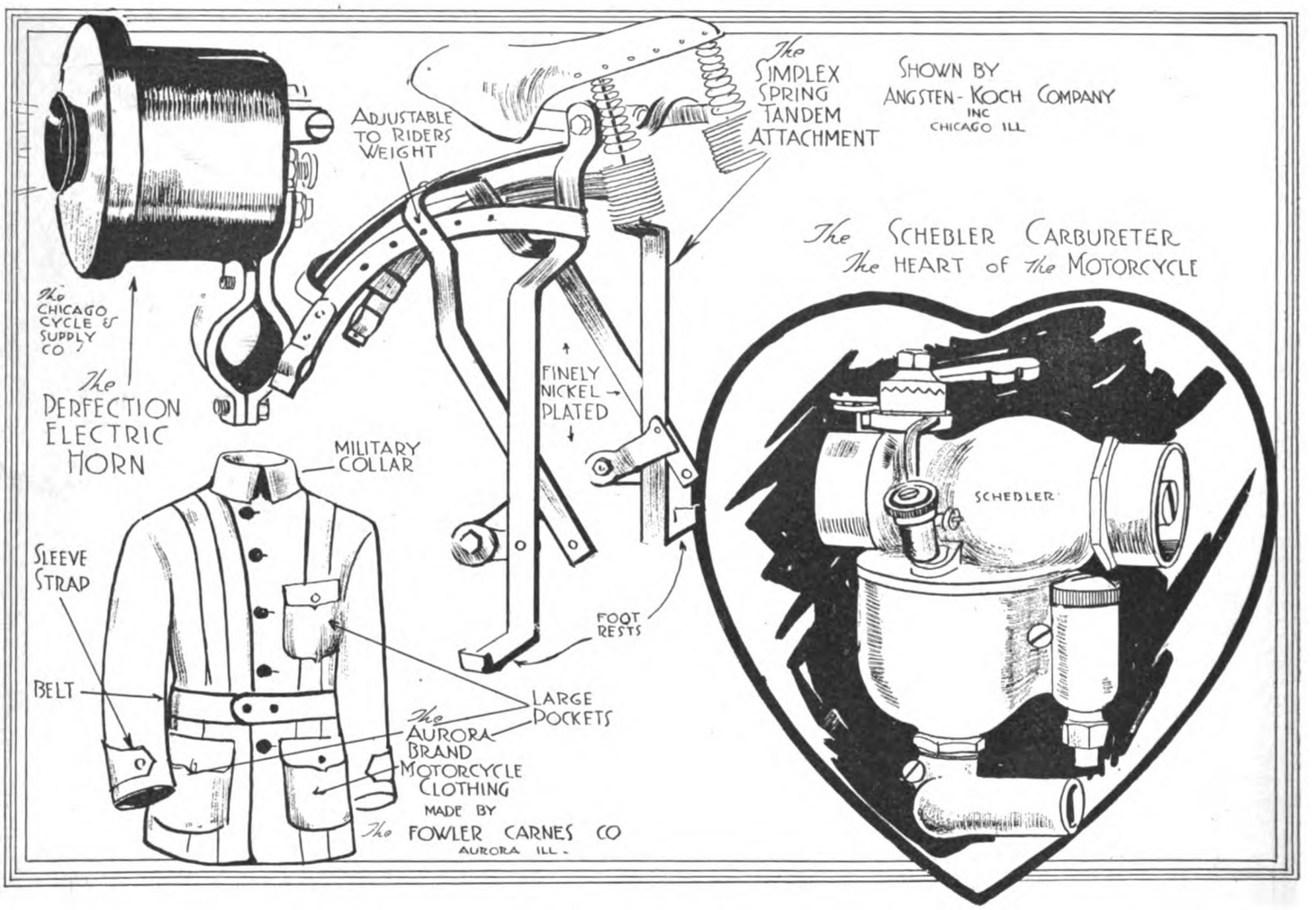
SHOW DETAILS—IN TEXT AND PICTURES



A FULL ACCESSORY LINE.

AN unusually large and pleasing line of motorcycle accessories is being shown by the Chicago Cycle Supply Company, of 22 West Lake street, Chicago. One of the features in this display is the firm's Perfection electric horn, which promises to be a rapid seller. The horn outfit includes a battery, battery case, wiring and handlebar push button, and the whole system is so well worked out as to be no less simple or attractive than an automobile electric horn. The outfit may be attached to any motorcycle with only a monkey wrench and screwdriver. The upkeep outlay is 35 cents for an electric battery which will operate the horn for about six months.

The firm is also showing its new Perfection headlights. These have been on the market for some time, but owing to their special advantages in the way of light-giving and sturdiness they are receiving much attention. A combination spring luggage carrier and tandem attachment is being exhibited, and among the smaller articles on display is the new Yale motorcycle lock. These features are backed up by a standard line of supplies and accessories for the motorist.

FOWLER CARNES CLOTHING

MOTORCYCLE clothing of every description is shown at the stand of the Fowler Carnes Company, of Aurora, Ill., where discriminating riders are lingering these days. Two of the F. A. M. suits, prepared especially for members of the Federation, are shown in connection with the regular line. Those in attendance at this booth are E. Lamb, D. A. Adams and I. N. Wilson.

ANGSTEN KOCH SPECIALTIES

AT the Show booth of the Angsten Koch Company, of 215 Englewood avenue, Chicago, there is a full line of the up-to-date specialties carried by this firm, including spring and rigid luggage carriers with tandem combination, the Simplex spring tandem attachment, an improved side seat, spring cushions for use with carriers, fabric pulley lagging, lamp brackets, waterproof motorcycle clothing, sidecar and commercial van outfits and other attractive incidentals to the motorcycle. An interesting feature of the firm's display is an improved motorcycle lock which is designed to clamp a steel bar between the spokes of the front wheel.

Visitors at the Angsten Koch stand are being welcomed by B. F. Koch, J. P. Angsten, Robert Phillips and H. W. Angsten.

"THE HEART OF THE MOTOR."

ALTHOUGH nothing distinctly new is shown by Wheeler & Schebler, of Philadelphia, at their Chicago booth, the stand is nevertheless an attractive one. The display is similar to that at the New York Show, a large red heart being a publicity feature of the motorcycle section, to exemplify the company's slogan, "The Heart of the Motor." Their model H motorcycle carbureter is a leading feature of the exhibit.

EASY MONEY FOR DONOVAN

J. S. DONOVAN, a live wire of Beckley-Ralston Company, was very much in evidence. Five minutes after the show opened he had received a certified check for $500 from William E. Stauber, of Chicago, as deposit on 50 Dayton motorcycles. With him were A. J. McKee, Boyd Spencer and H. S. Rector. Messrs. J. C. Ralston, W. L. Beckley and Gordon Beckley were also on deck to receive congratulations from their numerous friends on their new seven-story building, which they will soon occupy, and which will be devoted exclusively to the jobbing business and Dayton motorcycles.

PLENTY OF LIGHT

HUNDREDS of Tungsten lights were strung at the Motorcycle Show, and there wasn't a dark corner to be found. Windows on three sides of the large exhibit hall admitted plenty of light in the day time.

MOTORCYCLISTS of California are enthused over a statement made by the Post Office Department of San Jose, to the effect that the first parcel-post package was delivered by motorcycle.

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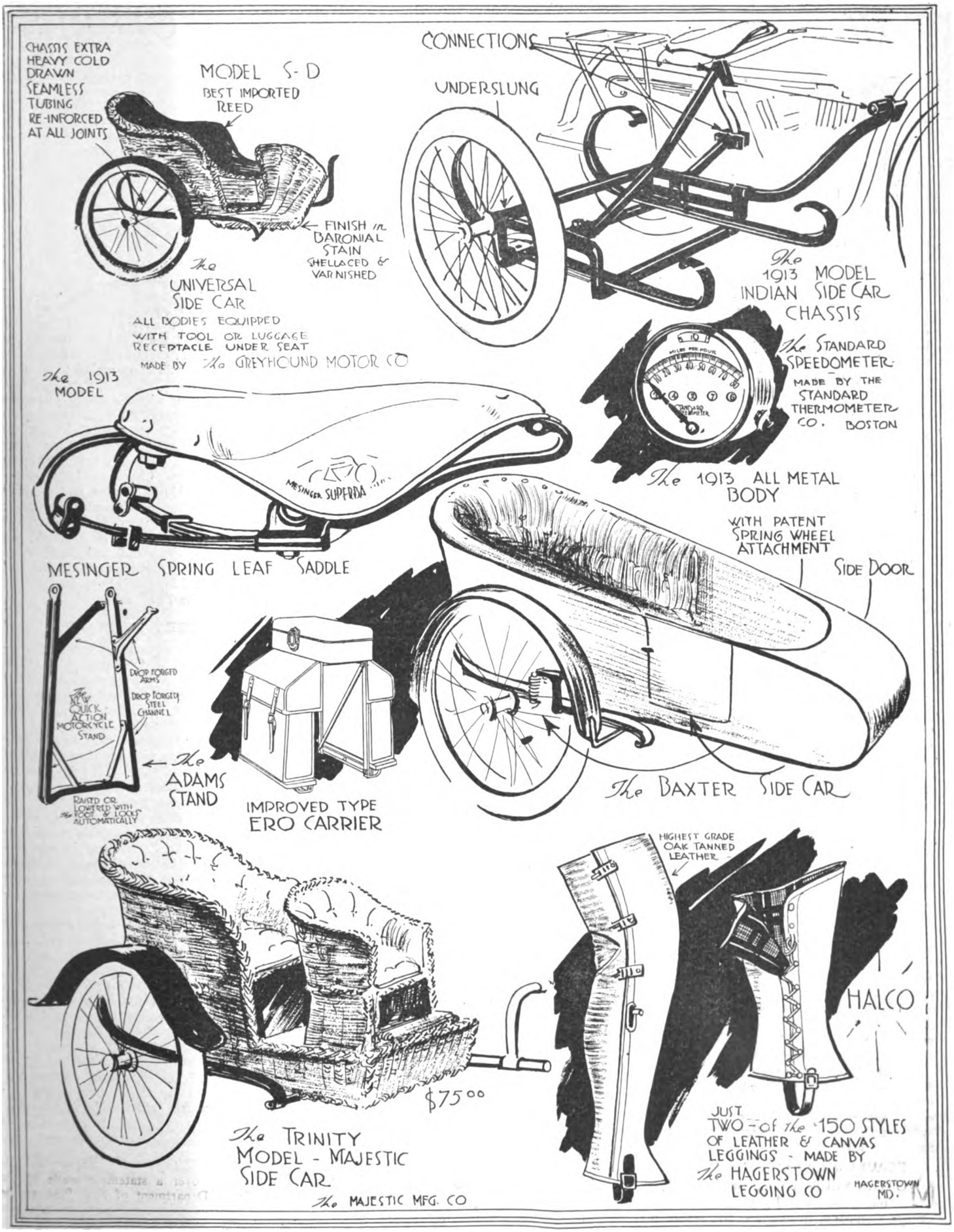

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UNIVERSAL SIDECARS

IN addition to the models shown at the New York Show, the Greyhound Motor Company, 1443 Niagara street, Buffalo, N. Y., is featuring two new reed sidecars at its Chicago stand. The first has the standard side door and the other is of the open body type. The spacious delivery van and the auto-car models are also shown. A new product, which is being displayed is the folding sidecar stand, which is adaptable to any make of sidecar. A telescopic fitting is employed between the sidecar and the lower portion of the motorcycle frame to form a fourth attachment, and there is also a combination storm apron which will not only protect the passenger under all climatic conditions, but will serve as a cover for the car when not in use.

BAXTER SIDECARS

SIDECARRISTS and prospective users of sidecars have found a warm welcome at the Show stand of the Baxter Sidecar Company, of 119 Broadway, Cambridge, Mass., and judging from the enthusiasm displayed by both visitors and attendants it has been a simple matter to keep interest in the company's offerings at a high pitch. The firm offers its wicker models in four styles, three with side doors and one with the popular high canoe front, in addition to its racy looking torpedo metal-body type that is bran new for 1913. As is already well known a distinctive feature of the Baxter line is the spring wheel fitting which permits of all the road shocks being taken up in double suspension springs. Special attention is being called to the hub spindles in the Baxter products; they are turned from solid Bessemer steel, with steel cones at the big end, driven on.

INDIAN SIDECAR

IN designing a sidecar applicable to the 1913 Indian, The Hendee Mfg. Co. was confronted with difficult problems entirely foreign to the auxiliary vehicle branch of the motorcycle industry. Heretofore sidecars had been built for use with rigid frame motorcycles, and the satisfactory attachment of such a vehicle to a spring frame machine presented unusual engineering difficulties which required a high degree of skill and exhaustive experiment to overcome.

The car will be built in two models for use in combination with the 1913 Indian T. T. two-speed and regular models, respectively. The differences in construction are in the rear stay rods and attaching clamps, the forward connection being uniform throughout.

The T. T. two-speed car can be attached to either the twin or single of this type, and the regular car similarly in its class. The cars are not interchangeable from T. T. two-speed to regular models unless two sets of fittings are used.

All chassis tubes are of 14 gauge steel, 1¼ inches diameter. The four corner posts of the frame are of steel, all other fittings being drop forgings. Exclusive features are the drop frame, and double cross members at the rear and left side. The low frame suspension induces the machine to hold the road at speed, and on corners, and also conduces to easier riding. The double cross members insure extreme rigidity, and unusual frame strength to successfully withstand road shocks. The road clearance is 8¼ inches.

The two Indian sidecar models will be illustrated and described more fully in an early issue.

MAJESTIC SIDECARS

SIX models of sidecars are now being produced by the Majestic Manufacturing Company, 34 Southbridge street, Worcester, Mass., and a new feature is brought forth in the Trinity model as displayed at the Chicago show and illustrated on another page of this issue. The Trinity model is built along the same lines as the Majestic standard canoe model, except that it has a detachable child's seat. Among the other models shown are the Majestic De Luxe canoe front and the De Luxe curved front, both listing at $90. The standard canoe model and the Majestic quick delivery van sell for $65, while the Trinity model, with child's seat attached, is sold for $75.

STANDARD SPEEDOMETERS

IN addition to the display which attracted much attention at the New York Show the Standard Thermometer Company, 65 Shirley street, Boston, Mass., is featuring at its Chicago exhibit an Indian motorcycle with a Standard speedometer and in operation. The front wheel is electrically driven and by an ingenious arrangement it is given a jar at intervals in order that the computing instrument may be subject to conditions practically the same as are encountered on the road. Needless to say, the exhibit is winning its full share of interest.

HAGERSTOWN LEGGINGS

MOTORCYCLE LEGGINGS of every description are displayed at the show by the Hagerstown Legging Company, of Hagerstown, Md. A feature of the exhibit is a new waterproofed legging, which is treated by a process just perfected and known as the "Byron" treatment. This is said to add also to the wearing qualities of the legging. A full line of the puttles and motorcycle leggings, both in leather and canvas, and in knee and thigh sizes are shown. Leggings made by the Hagerstown company are sold under the trade name of "Halco."

STRONG STANDARD STAFF

VISITORS at the Show booth of the Standard Welding Company are experiencing no difficulty in obtaining plenty of data bearing on the company's comprehensive line of steel tubing and other seamless steel parts, in view of the fact that seven of the firm's officials and department heads are very much "on the job." Those in attendance are: T. W. Guthrie, secretary and general manager; J. C. Manternach, general sales manager; R. S. Bryant, consulting engineer; F. L. Sessions, superintendent; B. A. Quayle, Chicago representative; B. G. L. Dodge, advertising manager and A. C. Clark, sales representative.

GREAT WESTERN SPECIALS

VICE-PRESIDENT CHARLES A. LONN, of the Great Western Manufacturing Company, of Laporte, Ind., is in charge of this firm's exhibit at Chicago. Mr. Lonn reports special interest in the company's newly patented bicycle frame and in the Fauber patented motorcycle crank-hanger which is one of the latest offerings of the Great Western company. These products were not shown in New York.

RECENT figures show that there are about 300 motorcyclists in St. Paul, Minn., and the local dealers expect to sell 200 machines before the riding season opens.

MESINGER "SUPERBA" SADDLE

AS might be expected, the Mesinger "Superba" leaf spring saddle is foremost among the saddles on exhibition at the stand of the H. & F. Mesinger Manufacturing Company, of 144th street and Austin place, New York City. The front divided springs are of chrome vanadium steel and the rear springs on each side are made of the same material with swing hinges, giving the saddle maximum spring action and insuring the lowest possible saddle position.

AMERICAN CO.'S STAFF

G. M. GREENE, distributor in Illinois and Wisconsin for the American Motor Company's products, is in charge of the Brockton firm's stand in at the Show. The company is showing the same machines that were displayed to good effect in New York. W. T. Marsh, of the American Motor Company, was seen at the stand at intervals for several days, but was unable to devote the full week to the exhibition owing to pressing business elsewhere.

Among the others who are working in relays to handle visitors at the American stand were: E. G. Zabel, of the Bertelson-Zabel Company, of Valley City, N. D., distributors for North Dakota, Wyoming, Idaho and Montana; D. W. Polkinghorn, of Cherokee, Iowa, distributor for Iowa; Hugh Scanlan and Dean D. Richards, of Scanlan & Richards, distributors for South Dakota, with headquarters at Bradley; C. W. Grady, of Howe, Ind., and M. J. Moran, of Cleveland, and D. H. Bothwell, of Toledo, of the company's sales staff and George H. Lloyd, of Syracuse, N. Y.; distributor for the Empire State.

COVENTRY PENNANTS

ATTRACTIVE pennants, bearing the inscription "'The Coventry' Chain; the Motor's True Mate," are in great demand at the show stand of the Sarco Engineering Co., of 112 Broad street, New York City, and "The Coventry" initiative is again bringing big publicity returns. Not content with merely passing the pennants out to visitors at the stand, the company's "chain gang" made the round of the exhibition chamber and tied a pennant to the handlebars of each machine on display. In some cases they even decorated the handlebars of machines standing outside the exhibition building. The Sarco firm is sole distributor for "The Coventry" chains in America, and no visitor at the Chicago show is being permitted to escape without being acquainted with the fact.

At the Sarco stand are Sales Manager H. F. L. Funke, L. H. Cornish and A. R. Roberts.

GENERAL MOTORCYCLE SUPPLIES

VISITORS at the Show booth of the Excelsior General Supplies Company, of 1436 Michigan avenue, Chicago, find a full line of motorcycle accessories and supplies and an attractive catalog, dealing with motorcycle goods exclusively, is in great demand.

THOMAS A BENEDICT

BALTIMORE, Md.—Raymond Thomas, known in racing circles as "Chic," was married to Miss Anna E. Muller, of this city, on January 27. The members of the Maryland M. C. attended the wedding in a body and afterwards made things lively at a reception.

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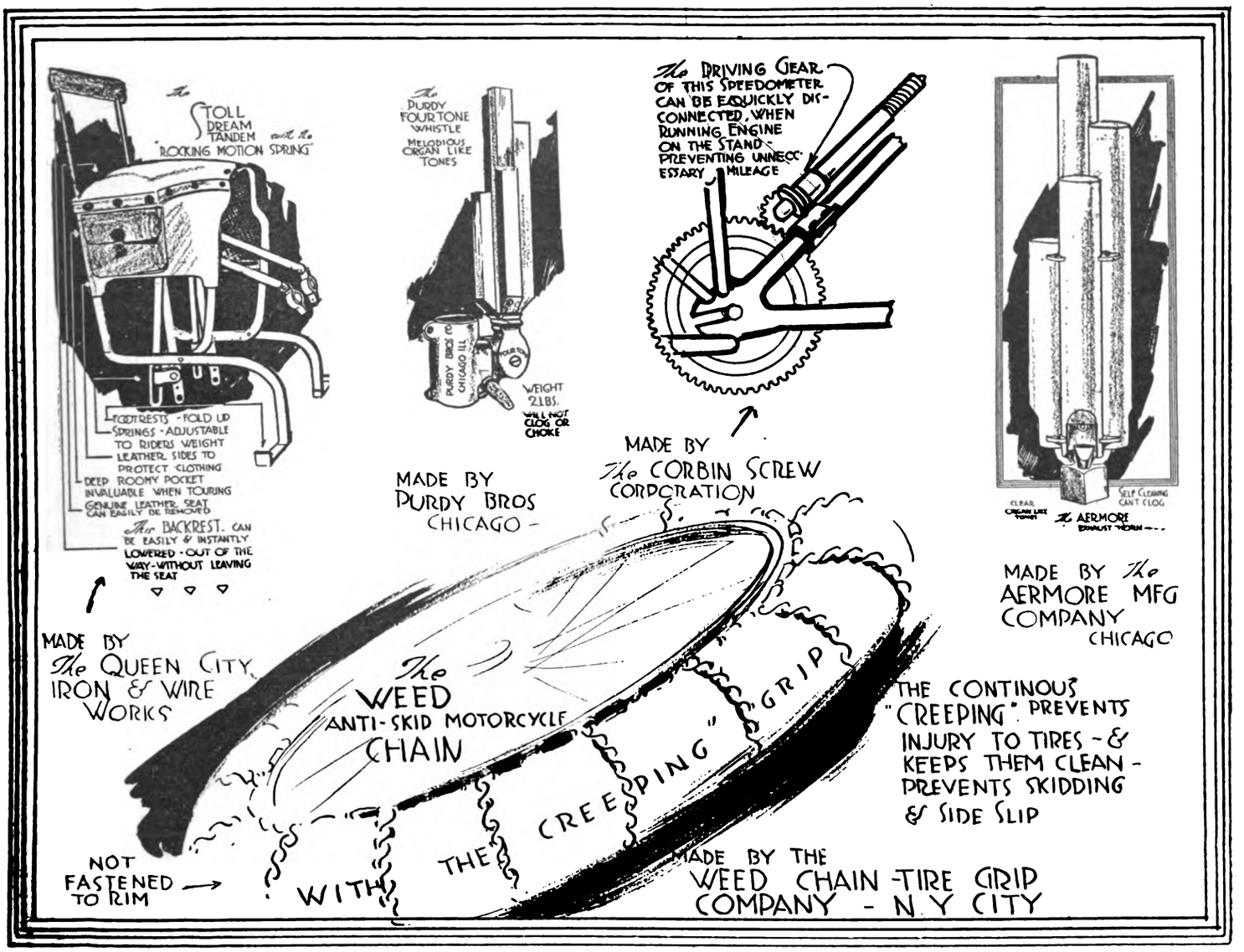

STOLL DREAM TANDEM

AN offering of exceptional interest to the rider who wishes to carry a tandem passenger is the Stoll Dream Tandem, shown at the Chicago Show by the Queen City Iron and Wire Works, Thirty-third street and Walnut avenue, Denver, Colo. Both back and footrests are furnished with this tandem. If desired, the backrest may be lowered without the rider's having to dismount from the machine. The most important feature of the Stoll Dream Tandem is the rocking motion, in which all road shocks are absorbed.

WEED TIRE CHAINS

A DISTINCTIVE and most important feature of the Weed anti-skid motorcycle chains exhibited at Chicago by the Weed Chain Tire Grip Co., of 28 Moore street, New York City, is the "creeping grip." The great demand for a reliable chain is shown in the fact that the Weed company is now manufacturing and selling more than forty miles of chains every day. The continuous "creeping" of the Weed chains prevents injury to the tires and keeps them clean, at the same time minimizing the possibility of tire puncture. The secret process of hardening the cross chains which has just been adopted by the Weed company gives additional lasting qualities. Weed chains make so small a bundle when not in use as to allow them to be carried in the coat pocket.

PURDY WHISTLES

PURDY motorcycle whistles, manufactured by the Purdy Brothers Company, 939 West Garfield Boulevard, Chicago, Ill., are receiving their full share of attention at the Show. The Purdy line of exhaust whistles is featured by the A and B models. Purdy motorcycle pumps are shown in connection with the assortment of whistles, as well as a line of patent brackets and other specialties. The original model A whistle with the four variable tones, and the model B, which has been improved for 1913, the trapdoor valve now being used in this type, are the leading products of the display.

AERMORE FEATURES

IN addition to its Aermore exhaust horn and the Sabo motorcycle lock, the Aermore Manufacturing Company, of 1536 Michigan boulevard, Chicago, is exhibiting the Rogers sidecar which was illustrated and fully described in the New York Show Report number. The Rogers car is sturdy, well sprung, comfortably upholstered and fitted with an aluminum step which is of great value to the passenger in entering and leaving the car. The Aermore exhaust horn, illustrated elsewhere in this issue, is referred to as "The Horn Harmonious." It is simple, effective and far-reaching without being offensive.

CORBIN DISPLAY

CORBIN-BROWN speedometers and the Corbin duplex motorcycle band brakes are being displayed at the Chicago Show by the Corbin Screw Corporation division of the American Hardware Corporation, 229 High street, New Britain, Conn. The Corbin-Brown speedometer is built on the centrifugal principle and is so constructed that the accuracy of the mechanism cannot be affected by climatic conditions. Distinctive features of the 1913 Corbin speedometer are that the needle will not fluctuate, no matter how rough the roads may be, and that the instrument may be easily released when the machine is on the stand. This latter device enables the rider to keep a perfect record of his actual mileage. This speedometer records a total of 100,000 miles. In addition to the speedometer and the Corbin duplex band brake, a complete line of motorcycle and bicycle brakes, front and rear hubs, and knockout axles is being shown.

E. Mobberly, 1312 Scott avenue, has taken the agency for the Yale in Canton, Ohio.

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VICTOR LAMPS

A NEW product of the Victor Auto Parts Company, Cincinnati, Ohio, is the Old Reliable motorcycle lamp, which is being featured at the Chicago show by the Fulton McCutchan Company, 1146 Michigan avenue, Chicago. This is being shown in connection with the line of X-Ray motorcycle lamps, which are also made by the Victor company and handled by the Fulton McCutchan company. An unusually large mirror reflector is used in the manufacture of the "Old Reliable," and the body of the lamp is stamped out of one piece of metal. The visitor at this booth finds a number of entirely new features in addition to the regular line.

OLD SOL LAMPS

OF unusual interest to the night rider is the complete display of Old Sol lamps, shown by the Hawthorne Manufacturing Company, Howard avenue and Spruce street, Bridgeport, Conn. Old Sol lamps, often termed "the lamps with the oversize lens," are displayed in varied types for both gas and electricity. Special attention is called to the new sidecar lamp, Old Sol No. 13, and the headlights, No. 17 and No. 8. The sidecar lamp shows a red signal, is rated at 100 candlepower, and is listed at $2.50. It weighs only ten ounces. Old Sol tail lights, numbers 9 and 20, are also shown, the latter being an electric lamp.

THE BECKLEY-RALSTON LINE

AN attractive assortment of tools and motorcycle and tire accessories are featured by the Beckley-Ralston Company, of Michigan avenue and Randolph street, Chicago. Among the high grade specialties found at this booth are: carbureters, chains, clocks, cyclometers, exhaust horns, gloves, grips, lamps, leggings, luggage carriers, spark plugs, speedometers and windshields.

BROAD ACCESSORY EXHIBIT.

EVERYTHING for the dealer and repairman was shown by the Chicago Cycle Supply Company at the Show. While inspecting this booth the rider can well imagine himself traveling through an accessory factory, so complete is the display. A full line of Perfection products is shown, among which are the motorcycle headlight, electric horn, combination spring carrier, generator and spark plug. An assortment of gauntlets, goggles, pedal rubbers, lamp brackets, motorcycle watches, Acme Sirens and Barco exhaust horns, Corbin-Brown speedometers and Schebler carbureters are also shown.

SPLITDORF PRODUCTS

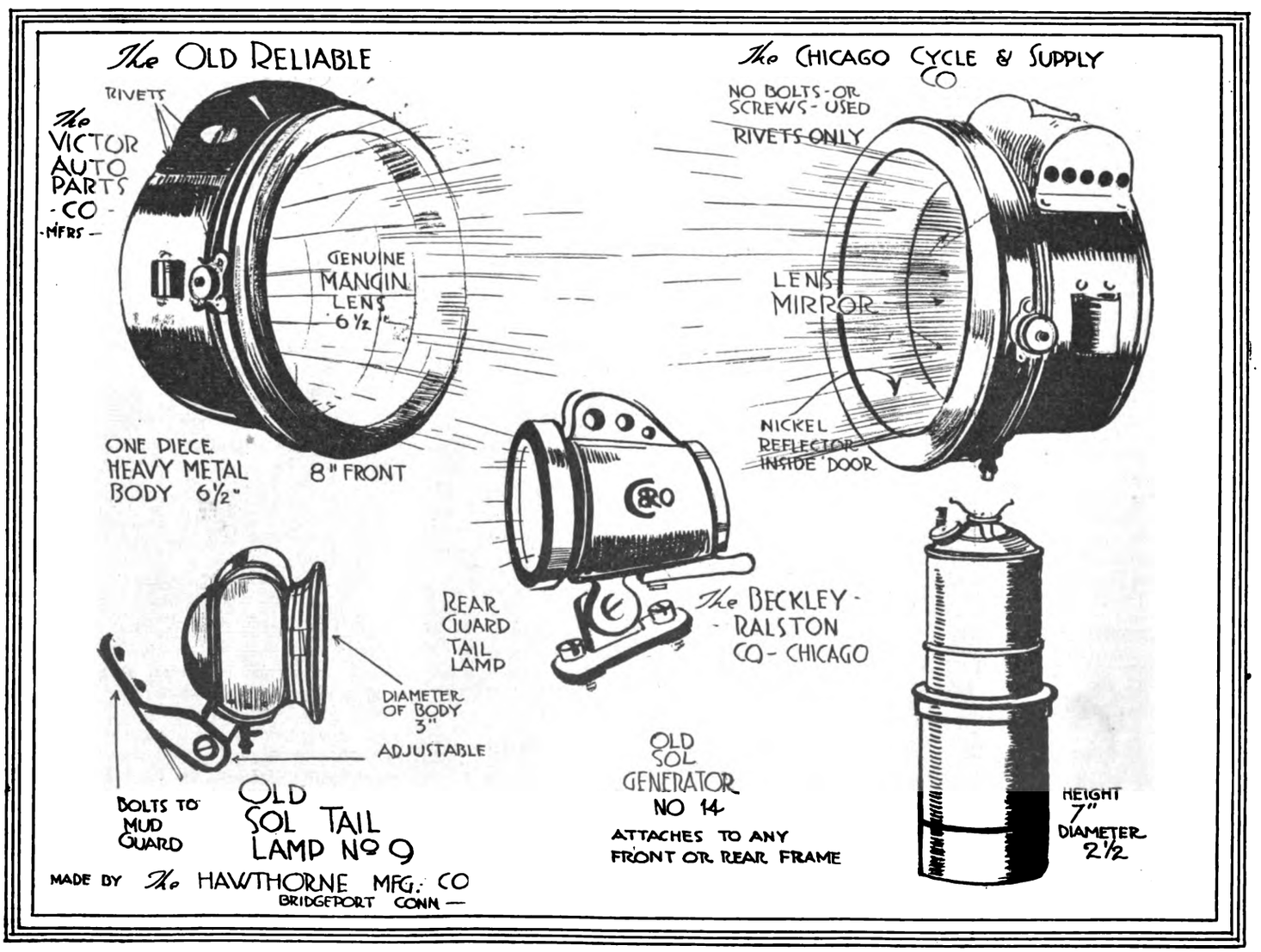
MAGNETOS of EU and EV models share interest with the "Common Sense" plugs at Stand 61, that of the Splitdorf Electrical Company. The EU model is for the ignition of single-cylinder motors, and the EV for twin motors, both models having been fully described in the issue of January 9. The spark-plugs are common sense in everything that the term implies, being gas-tight, soot-proof and unbreakable. They are made especially for motorcycle service, and give an intensely hot spark which will fire any mixture that is inflammable.

HART'S MACHINE SHOWN

THE Aermore Manufacturing Company had on exhibit the machine ridden by Frank Hart from New York to Chicago, on which were fitted several articles manufactured by them. Hart left New York soon after the New York show, and was none the worse for his trip. This concern is going after the motorcycle trade strongly, and is making great headway. G. V. P. Lansing, D. R. Niver, P. Lightfoot, H. B. Jones, R. Rogers and Frank Hart. Hart is now connected with this concern as traveling representative.

MEETING POSTPONED

THE Chicago Retail Cycle Dealers' Association suspended their fortnightly meeting this week on account of the show, and the next meeting is scheduled for next week. M. L. Helpman, Jr., secretary of the organization, is at the show talking up the benefits of his organization.



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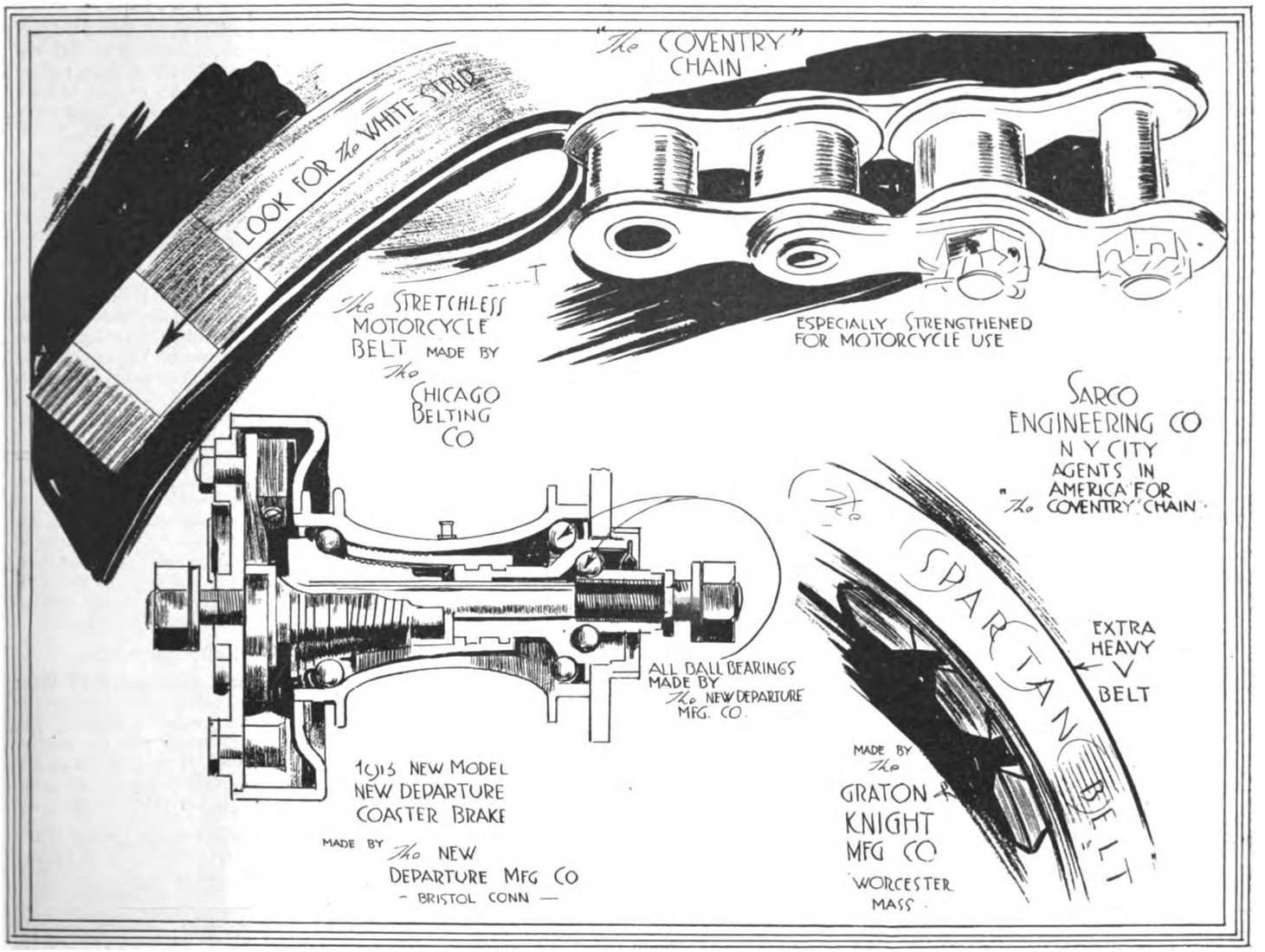

NEW DEPARTURE BRAKE

AS might have been expected, the 1913 motorcycle coaster brake has had the lion's share of interest at the booth of the New Departure Manufacturing Company, of Bristol, Conn., since the opening of the Show, and the attendants have been kept busy explaining its distinctive points. This brake is credited with being strong enough to hold an automobile—and it looks it. When this brake is brought into action by back-pedalling it is capable of exerting a retarding force of a ton and a half in the brake drum. The mechanical construction, outside of the brake end, is practically the same as that which has been employed with unvarying success in the New Departure coaster brake for bicycles, but with all parts proportionately heavier to stand up under the excessive strain of motorcycle service.

In addition to the improved motorcycle coaster brake the New Departure company is showing a full line of its other brakes for both motorcycles and bicycles, fully demonstrated by its booth attaches. The New Departure company is showing its line of ball bearings, which have proved by rigorous test equal to stand with the firm's other products. In addition to its show display the company is conducting an individual exhibit of its ball bearings and motorcycle and bicycle sundries in Suite 1-7, Floor J, of the Congress Hotel.

"CHIBECO" PRODUCTS

WHITE STRIP motorcycle belts, both V and flat types, Sea Lion flat belts, "Chibeco" repair outfits, Sea Lion motorcycle belt dressing and "Chibeco" lagging are being featured in the comprehensive exhibit of the Chicago Belting Company, of 113 North Green street, Chicago.

Special attention is being called to the company's repair outfits, which are sold to dealers only. In this way the firm aims to help dealers by placing them in a position to repair belts, and thus to stimulate their business. The standard Chibeco repair set includes a belt knife, screw driver, finger steel, glue brush, roughing tool, heeler, scraper, Sea Lion cement and iron clamps. Literature relative to the company's line of motorcycle belts as well as the improved repair kits will be sent on request.

COVENTRY CHAIN EXHIBIT

IN addition to the attractive line of horns displayed at the booth of the Sarco Engineering Company, 112 Broad street, New York, was shown an assortment of the well-known Coventry motorcycle chains, manufactured by the Coventry Chain Company, Ltd., Coventry, England. Coventry chains have been much in evidence of late on winning machines in endurance runs and races in England, as well as in this country and have proven their durability to the satisfaction of the users and makers.

GRATON & KNIGHT DISPLAY

EVERY motorcycle product of the Graton & Knight Manufacturing Company, of Worcester, Mass., is being shown at the firm's stand in the Chicago show. The attractive display includes Spartan V and flat belts, solid round belting, motorcycle tire sleeves and cut lacing. The "belt with the pull" is a feature of the exhibit.

Sales Manager W. W. Shoemaker, of the motorcycle belt department, and G. W. Urquhart, manager of the Chicago branch, are in charge of the Graton & Knight booth.

GALE ON THE JOB

M. E. GALE, on a 10 h. Emblem, rode into Chicago Tuesday afternoon from Angola, New York. His machine was placed on exhibition in the Emblem booth. Gale made exceptionally fast time all along the route of over 500 miles.

INDIANAPOLIS REPRESENTED

A GOODLY number of Indianapolis motorcycle enthusiasts were present during the week. The Hoosier capital being within five hours' ride of Chicago, was in easy traveling distance.

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FENTRESS-NEWTON CO.

PROBABLY the most interesting feature of the display at the Fentress-Newton Manufacturing Company stand is its improved tandem attachment, which embodies a luxurious cushion and a well-sprung, sturdy frame, with adjustable handlebars for the tandem passenger. When the cushion and handlebars are removed this attachment makes an admirable luggage carrier. The F-N back-rest for fitting to an ordinary motorcycle saddle fills a need long felt by the touring motorcyclist and its simplicity and ease of attachment, combined with its moderate price, make it a rapid seller. Another feature of the F-N exhibit is a universal lamp bracket which permits of attaching any make of lamp on any motorcycle handlebar. The firm also produces extension nuts and other fittings that are described in a neat folder. The company is located at 429 Bagg street, Detroit, Mich.

GRINNELL GLOVES

GRINNELL "Grip-Tite" gloves, especially suitable for use by motorcyclists, are being featured in the extensive line of the Morrison-Ricker Manufacturing Company, at the Chicago Show. These gloves may be obtained with or without the ventilating feature. A distinctive branch of the firm's well-known "Rist-Fit" gloves are also included in the display, and special attention is being called to the fact that all Grinnell gloves are made up from reindeer leather and coltskin, both affording extra long life in the glove and unusual pliability. The "Grip-Tite" glove has a specially constructed palm which resists wear and also permits the user to grasp an object as firmly as if the bare hand were used.

ATLAS DISPLAY

MODEL B, an improved spring combination luggage carrier, is the main feature of the display of motorcycle supplies shown by the Atlas Specialty Manufacturing Company, 557 West Jackson Boulevard, Chicago, Ill. Among the other articles on exhibition are the firm's standard combination tail-lamp, luggage carriers, tool rolls, dust-guards, and several other models of tail-lamps. The combination lamp is constructed for acetylene or electricity, and is made in one piece of highly finished aluminum, buffed and polished. The display of fabric goods includes a line of high-grade leggings, known as the Chicago brand. Messrs. Wollheim, Pieper and Hellman are in charge of this complete and attractive assortment of motorcycle accessories.

A WESTERN ENTHUSIAST

"MOTORCYCLE manufacturers as a whole do not realize the tremendous possibilities for business in the West," said E. L. Morse, of Los Angeles, at the show. "You have no conception," he said, "of the growth of the industry in the West, where the motorcyclists can ride all the year round. It is really the home of the motorcycle. One noticeable feature is that 90 per cent. of the machines have tandems, and the tandems have no handlebars. In Chicago, motorcycling is supposed to have quite a hold, but the comparatively small city of Los Angeles has 8,000 riders, so you can see what the interest amounts to. The recent record-breaking by Humiston has set the West afire with new interest. Roads are nearly always good."

SPECIAL EXHIBIT

THE Continental-Erie tires were not exhibited at the show, but were elaborately displayed at the New Southern Hotel, across the street from the Furniture Exhibit building. William J. Surre, well known for his congeniality, was on the job and was ably assisted by E. H. Strickland and their Chicago manager, Fred Fee. The display drew well during the week.

FOR THE TOURIST

THE Motor Sales Company, 1806 Michigan avenue, in its booth showing Merkel motorcycles, also had on display a large motorcycle cape which that concern expects to market exclusively in Illinois, Iowa and Missouri. The cape, which is manufactured by the Goodman Rubber Company, 116 Pennsylvania street, Indianapolis, carries with it a written guarantee in regard to its being waterproof. The cape was designed by Erwin Baker, of Indianapolis, and is made to retail at $4.

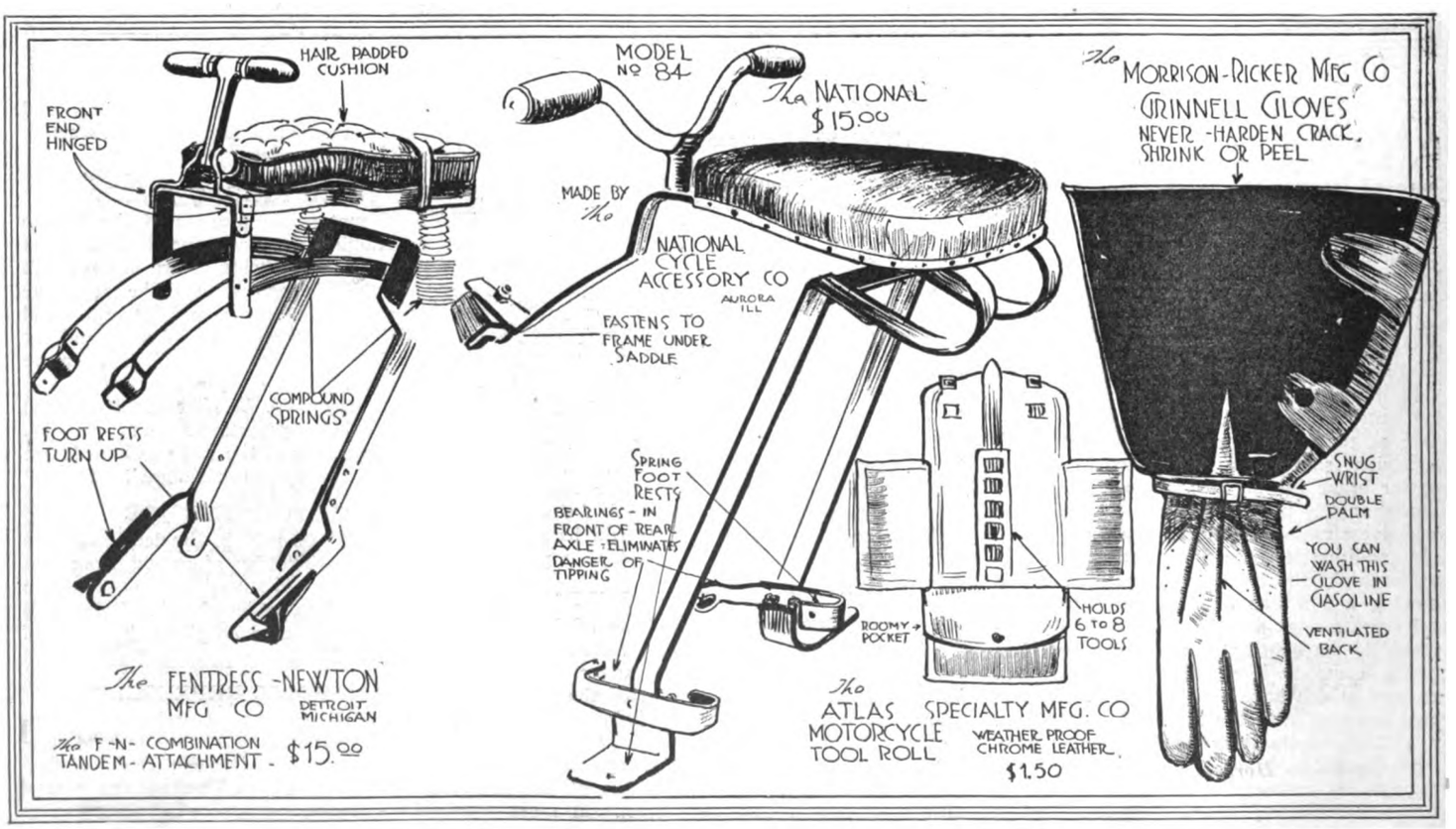
AN ATTRACTIVE ISSUE

A "CHICAGO SHOW NUMBER" of the monthly house organ, the *Harley-Davidson Dealer*, was distributed by the publicity men at the Harley-Davidson booth. The special issue is unusually attractive, the cover design being uncommonly interesting. The design is an actual photograph, taken at night by L. C. Rosenkrans, Harley-Davidson staff photographer, the picture being of a large electric sign which is now showing in Milwaukee on top of the Milwaukee Electric Railway & Light Company. The sign reads in bold letters: "The Electric Company Electric power is best; ask Harley-Davidson." The sign was put up in recognition of the fact that the Harley-Davidson company is the greatest user of electricity in Milwaukee.

HOTEL ROOM SCARCE

MUCH trouble was experienced by those searching for hotel accommodations, as the hotels all over town are crowded. The New Southern Hotel, which was the nearest to the motorcycle show, is sold up far in advance, and only a limited number of show visitors made their headquarters there.

A NUMBER of riders of the Tampa (Fla.) M. C. recently participated in a run to Lakeland and Mulberry.



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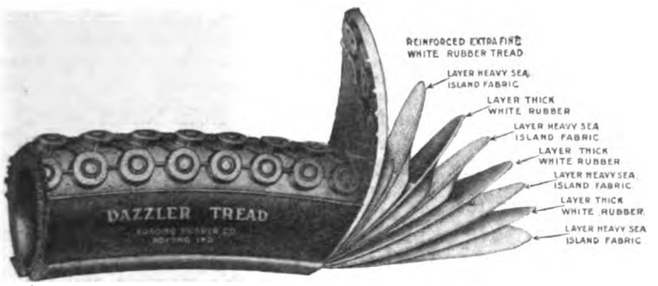
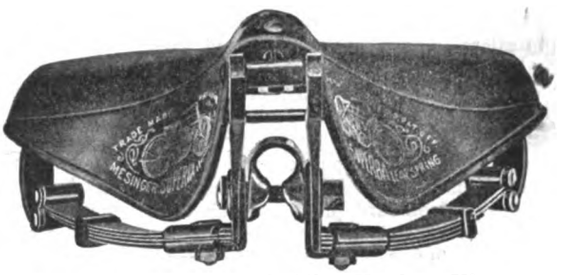
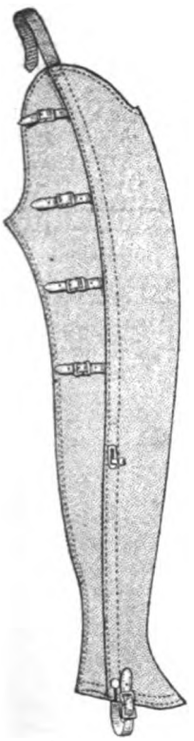


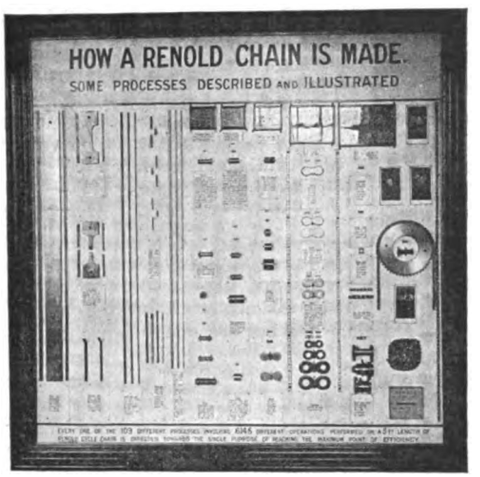
New Kokomo "Dazzler" Tread.



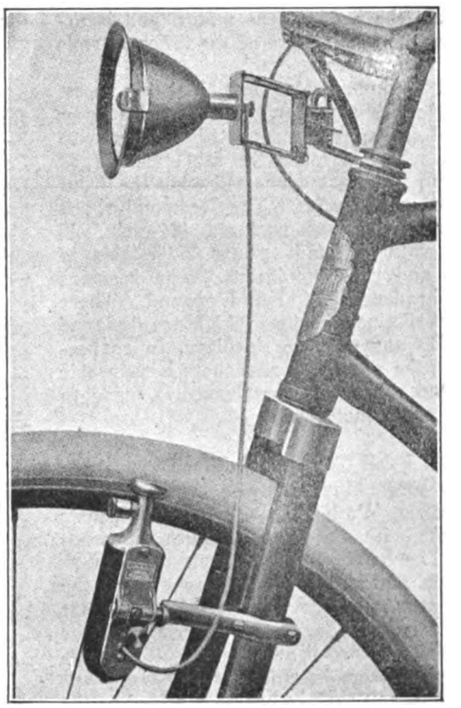
Mesinger "Superba" Saddle; Head-on View.



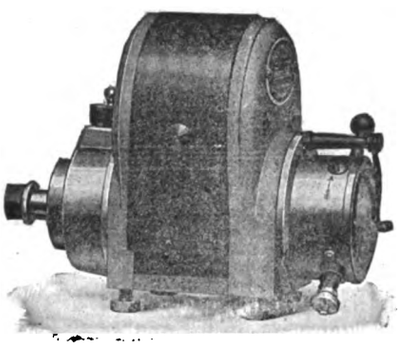
Hagerstown Legging



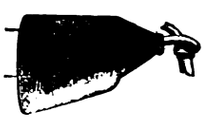
Renold Chain Exhibit at Frasse Stand.



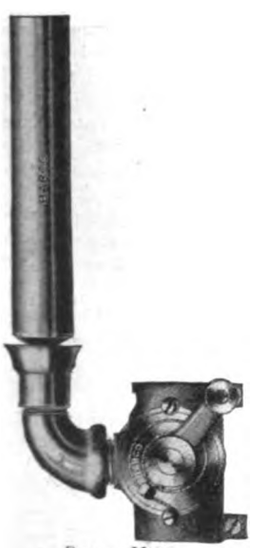
Marburg "Lucifer" Electric Lamp.



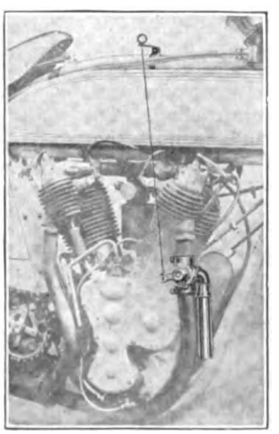
The 1913 Herz Motorcycle Magneto.



The Nathan Hand Windshield for Cold Weather Riding.

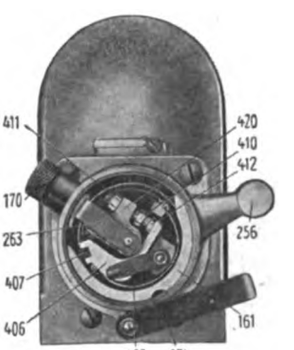


Barco Horn.



The Barco Horn in Position.

Nathan Legging.



Bosch Magneto Showing Mechanism.

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REDMOND SPECIALS

ONE brand new accessory exhibit was the Redmond footboard, an accessory marketed to dealers by the Harry Svensgaard Sales Corporation, of Detroit, and manufactured by the Motorcycle Parts Company, of the same city. A. C. Redmond is the inventor. The footboard, which is adjustable to any motorcycle, weighs less than 2½ pounds, and is made mostly of aluminum, with drop-forged connections. The footboard proper, which is of aluminum, is arranged so as to make it easy for the foot to stay on the rest, and the boards are on hinges, which permit them to be folded out of the way when not in use. The whole apparatus is fastened onto the lower bar which runs from the head to the motor, and is arranged so as to take care of the different rods on the motorcycles.

C. A. Redmond also exhibited his latest patented shock absorber. The contrivance is arranged so as to be connected directly with the rear wheel in much the same manner as the spring forks are connected upon the front wheels of motorcycles. The Redmond shock absorber consists of enclosed 1¼-inch coil springs, with rebound springs, adjustable to weights and road conditions. The bearings are all hardened in oil and ground. There are three distinct bearings which are designed to prevent any possible sideplay. In connection with the shock absorber there is a durable stand, and the whole contrivance is made to fit any make motorcycle.

FOX TANDEM SEAT

THE Fox Manufacturing Company, of Seattle, Wash., exhibited the adjustable Fox seat, with the latest features incorporated. The handlebars this season are made adjustable, and may be folded down beside the tandem seat when not in use. The footrest for the tandem rider is on springs, and the rest folds backward in case of a "spill," thereby saving it from breaking or bending. Another set of coil springs has been added to the spring supports of the seat, in addition to the coil springs and flat adjustable main spring used last season.

NEW KOKOMO TREAD

FROM Kokomo, Ind., has come additional proof that there is "something new under the sun." This time the proof takes the form of a brand new motorcycle tire tread which is being featured by the Kokomo Rubber Co. in its Chicago show exhibit. The tread is known as the "Dazzler," and is made up of newly-designed studs with connecting ridges, the whole providing a surface calculated to reduce skidding and side-slip to the minimum, while insuring longevity of the casing.

An illustration shown elsewhere in this issue makes clear the construction of the new Kokomo product, and calls attention to the seven layers of material beneath the tread proper. In addition to the "Dazzler" tread the company will continue to make its standard studded line of motorcycle tires and its durable tubes, as well as its tire and tube products for bicycles.

D. L. Spraker and R. R. Bowen are in attendance at the show stand of the Kokomo company.

MARBURG FEATURES

THREE highly interesting products of Marburg Brothers, Inc., 1790 Broadway, New York, are attractively displayed at the Chicago Show. Probably the most prominent among these is the Marburg "Lucifer" electric lighting outfit for motorcycles and bicycles. The "Lucifer" is easily installed on any machine, does not detract from the appearance of the motorcycle and is absolutely waterproof.

The Mea magneto is another feature of the Marburg exhibition. The bell-shaped magnet, placed horizontally in such a manner that it can be shifted around the armature within the smallest space has contributed largely to the success of the Mea magneto. Mea high tension magnetos constitute a large portion of the enormous business done by Marburg Brothers. S. R. O. ball bearings were also exhibited by this firm. This bearing is manufactured by the S. R. O. Company, one of the largest and oldest ball bearing companies in Europe.

RENOLD CHAINS

ONE of the most interesting and novel exhibits at the Chicago Show is that of the Peter A. Frasse & Co., of 417 Canal street, New York. The company is showing a "chain process" board which makes clear the complete process in the manufacture of Renold chains, from the testing of the raw materials to the final trial of the completed chain. A standard 5-feet length of Renold cycle chain goes through an amazing number of operations from start to finish. The firm is also giving out interesting booklets entitled "Engine Room of the Cycle" and "Hints on Chain Drives for Motorcyclists."

HERZ MAGNETOS

A HERZ magneto, shown in operation while entirely submerged in water, is the leading feature of the exhibit of Herz & Co., of 295 Lafayette street, New York City. Although put to this unusually severe test, which would probably never be met under any weather conditions, the magneto continues to work perfectly. A line of Herz spark plugs is also shown. Attention is called to the fact that a Herz magneto was used on the machine with which Lee Humiston made his recent record-breaking trials.

NATHAN SPECIALTIES

AMONG the specialties for motorcyclists featured in the extensive exhibit of the Nathan Novelty Mfg. Co., of 84A Reade street, New York City, are the firm's hand windshield and its "slip-on" hip legging. The former is so designed that it amply affords the riders hands ample protection no matter how cold or windy the weather may be. It prevents the wind from reaching the wrists and from blowing up the sleeves of the rider's coat, thus obviating one of the most annoying features of cold-weather motorcycling. To provide additional warmth and comfort the firm has made its hand windshields from the best quality sheepskin, with the natural wool, a great heat retainer, on the inside. As the shields are covered on the outside with waterproof leatherette no water can make its way through to annoy the user or affect the material.

The slip-on legging is extremely pliable and hugs the leg closely without being uncomfortably tight. Much of the ease obtained from this legging is due to a pliable leather gore which is inserted in the back. This attention to detail is typical of the Nathan line. A catalog describing the firm's full assortment of accessories for the rider will be mailed on application.

BOSCH MAGNETOS AND PLUGS

A PROMINENT feature of the Chicago exhibition of the Bosch Magneto Company, 223 West Forty-sixth street, New York, is a model of its ZEV magneto, operating in connection with a chain bucket arrangement whereby it is placed under the conditions actually met with while motorcycling in a heavy downpour of rain. This bucket system is so arranged that water is constantly thrown upon the magneto which continues to operate perfectly in spite of the severe test.

In addition to this magneto and the company's standard line of spark plugs and magnetos there is shown a large model of its new high tension spark plug in section, so that the makeup of the plug can be clearly seen. The plug is in actual operation, the high tension current being supplied by a large Bosch magneto. This arrangement proves the continuous efficiency of the magneto and also shows the working of the plug.

BARCO CHIMES

BARCO motorcycle chimes and valves are on exhibition at the Chicago booth of the Barco Brass & Joint Company, of 226 North Jefferson street, Chicago. The 1913 Barco chime is larger than the 1912 model and is richer in tone. The horn has three tones so harmonized as to produce a rich, clear sound. The valve is slipped on the exhaust pipe and the horn is attached to the valve in a convenient position. The operation of the Barco signal is exceedingly simple.

ACME MOTORCYCLE SIREN

WITH reference to the comprehensive line of horns displayed at the Show stand of the Sarco Engineering Co., of 112 Broad street, New York City, motorcyclists were interested chiefly in the Acme Siren. This is a compact and most effective warning signal, of the bulb family. A single pressure of the bulb produces a sound of great range and carrying power. The Acme is made in four types for motorcycles and in two for automobiles.

WESTINGHOUSE VULCANIZER

AN electric vulcanizer, recently placed on the market by the Westinghouse Electric & Manufacturing Company, of East Pittsburg, Pa., simplifies the making of tire repairs and is credited with unusual economy in operation. The device can be used with either direct or alternating current circuits. It is provided with a concave surface for use in vulcanizing the casing, and a flat surface for use in making inner tube repairs. The heating element consists of a metal ribbon imbedded in mica and hermetically sealed in the vulcanizing casing. This construction keeps the heater free from air and prevents oxidization. The outfit is so compact that it is adaptable for motorcycle garages, or even for private use where electric current is available.

VAN CLEEF PRODUCTS.

A NEW aluminum headlight, which has just been perfected, is displayed at the Chicago show by Van Cleef Brothers, of 7707 Woodlawn avenue, Chicago. The distinctive features of this lamp are lightness and durability. The Midget tail light and the firm's tire repair specialties are also attracting notice. The products of this firm are sold under the name of "Dutch Brand." Noah, Paul, Maxime, and Felix Van Cleef and J. W. Leach are in attendance at the booth.

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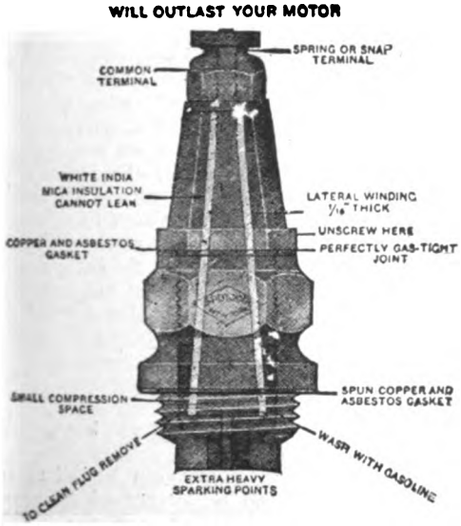
SOLAR LIGHTING EQUIPMENT

AMONG the exhibitors showing an attractive assortment of lamps and generators is the Badger Brass Manufacturing Company, of Kenosha, Wis., and New York City. The new Solar motorcycle lighting equipment is shown complete. The "Dad" and "Sonny" headlights are the leading models in these types, the body and flare on both being made of one piece, so that there is no door to rattle. These lamps have aluminum front reflectors and 1½-inch ruby jewels on each side. The right side jewel has a hinge and a catch to permit of lighting. The "Dad" model sells for $5 and the "Sonny" for $4. The Solar tail lamps are made in both the gas and electric types, the former selling for $1.50 and the latter for $2.

HINE-WATT OFFERINGS

COLUMBIA lamps, generators and supplies, manufactured by the Hine-Watt Mfg. Company, 16 East Randolph street, Chicago, are attractively arranged at the company's show booth. Head and tail lamps, in oil, gas and electric types, are shown. A line of Columbia burner cleaners and combination oil and grease guns, lamp brackets and burners are also displayed. Messrs. R. F. Mau and H. K. Ford are in charge of the Hine-Watt booth.



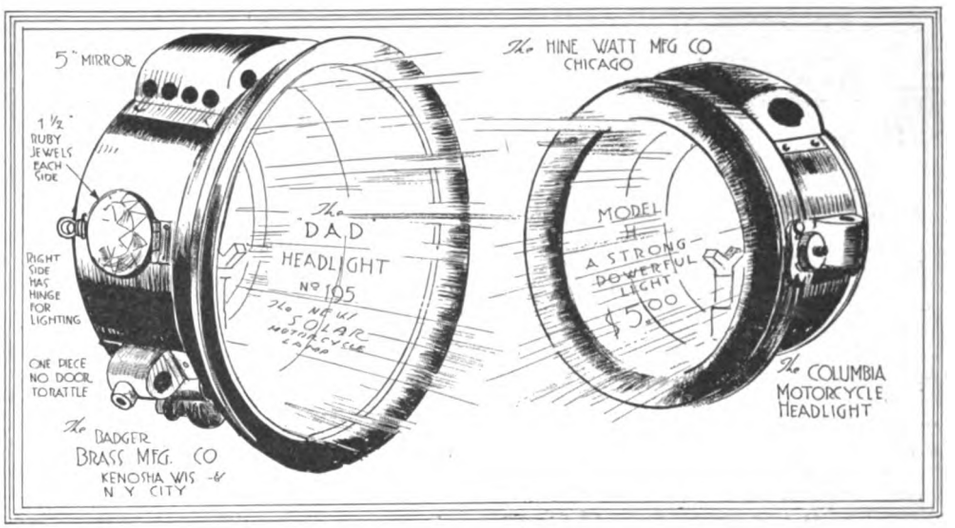
Splitdorf "Common Sense" Spark Plug, Which is Described Elsewhere.

LOW FEE SCORED HIT

THE fact that only 25 cents admission was charged to the show was one of the features which appealed to the motorcycle enthusiasts who visited the big exhibit. To any one who was interested, even in a small measure, in motorcycles and accessories, the show was well worth the price charged for admission.

WALTER F. WALKER was alone at the Weed Tire chain booth, but managed to demonstrate the Weed anti-skid grip to very good advantage.

THOSE in attendance at the show stand of the North Chicago Machine Co., which is featuring the Phantom motor in both single and twin types, are General Sales Manager Frank Palmbla, Salesman M. W. Crew and Superintendent E. S. Palmbla, who is also the inventor of the motor.



ACTIVITY IN THE SOUTH

"TWICE as many machines will be sold in Alabama this year as were sold in 1912," said T. E. Spotswood, Jr., of Mobile, who was an interesting spectator at the Chicago show. "The people in our section of the United States are just beginning to appreciate the value of good roads, and they are spending lots of money to get them in good condition. We look for banner business this year."

AN INDUSTRIOUS ORCHESTRA

THE orchestra at the show was given a roomy corner all to itself, and the music could be heard all over the exhibition hall, even during the busiest and most crowded hours.

THE Waverley Manufacturing Company, manufacturers of the Jefferson, was represented by A. F. Haberman, W. E. Klug and E. A. Punzel.

THE merits of the Schickel motorcycle were described to good effect by Sales Manager E. J. Carling and H. A. Skinner.

AT the booth of the Hagerstown Legging Company, the sightseer is greeted by R. L. Campbell, secretary, and L. V. Hershey.

THE Marburg Bros.' exhibit is in charge of F. Marburg, L. C. Marburg, E. C. Cheney and David Marschauk.

AT the booth of Angsten-Koch Company the enterprising young concern of Chicago, were found many new accessories for the motorcycle. Their new products aroused much interest. Those in charge were Henry Angsten, "the big gun"; Chas. J. Angsten, Joseph P. Angsten, B. F. Koch and Robt. Phillips.

THE new Superba saddle was well demonstrated by Messrs. Henry F. Mesinger and I. H. Whipple.

ONE feature of the Show that was distinctly original and that brought about all the good results expected of it was the distribution of 500 complimentary tickets for ladies. Feminine enthusiasts took advantage of this thoughtful arrangement in large numbers, and while their attention was given chiefly to the sidecar displays they managed to work up considerable interest in the purely mechanical aspect of the exhibition.

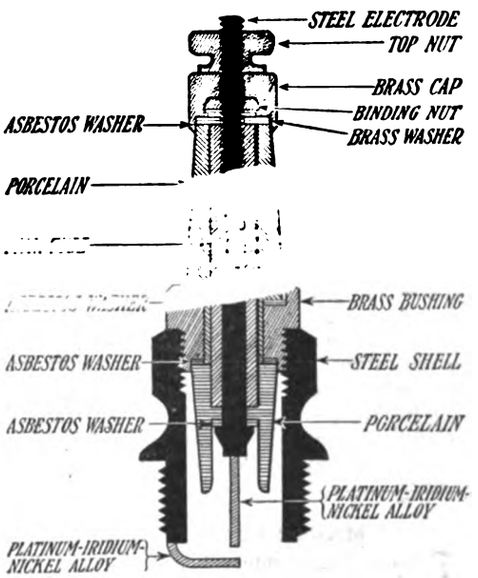
LOEWENBERG CLOTHING

LOEWENBERG clothing for motorcyclists as well as for all other lovers of outdoor sports is being shown to advantage in Chicago during Show week by L. N. Smith, who has an attractive display of the goods at the Hotel Brevoort. The Loewenberg line includes complete outfits for women as well as male enthusiasts, and Mr. Smith reports entirely satisfactory returns from the individual exhibit at the hotel.

ALTHOUGH the Troxel Manufacturing Company had no exhibit, its saddles were to be seen in many places. H. T. Roberts was there to see that they were well displayed.

"LONG JOHN" O'CONNOR, of the Hendee factory, was missed at the motorcycle show. A motorcycle show or convention without O'Connor on the job with his pencil, cap and startlingly long trousers, has heretofore been regarded as quite possible.

AN ordinance has been passed in Paducah, Ky., whereby motorcyclists riding at night without both head and tail lamps will be liable to arrest.



New Johns-Manville Spark Plug.

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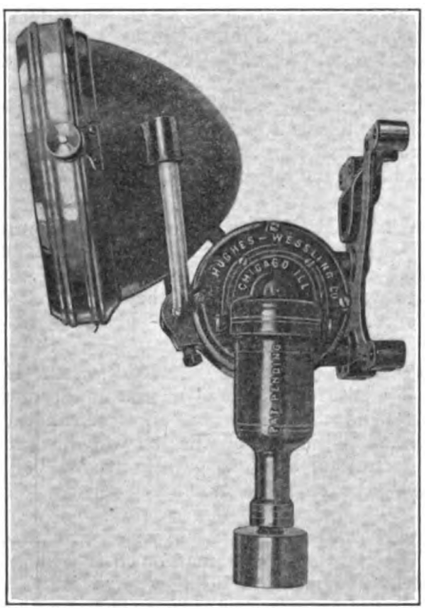
NEW ELECTRIC OUTFIT FOR ALL NEEDS

Hughes & Wessling Feature System, Including Headlight, Tail-Light, Speedometer and Trouble Lights and Electric Horn, and All May Be Used Effectively at Same Time

MOTORCYCLISTS who are giving careful attention to developments in the field of electric lighting for the motor two-wheelers are deeply impressed with the display at the stand of Hughes & Wessling, designers and manufacturers of metal specialties, at 3912 Hoyne avenue, Chicago. One of the first features to attract the visitor is the completeness of the Hughes & Wessling lighting outfit, which is made up as follows: A 6-volt, 6-ampere generator, complete with governor; a 6-inch headlight with parabolic reflector and an 8 candlepower bulb; a cast aluminum tail-light, with license bracket and 2 candlepower bulb; a 4-way switch, with all necessary wiring for the entire outfit; a 20-ampere hour



A View in Detail of the Improved Hughes & Wessling Lamps.

storage battery; a base for mounting the generator on the motorcycle; all necessary clamps for fastening outfit, and a wiring diagram and instruction sheet. Other fittings which can be used from the gem generator affecting the light, and which can be obtained from the manufacturers at moderate cost are: An electric horn, a trouble light and a speedometer light. All these extras may be used with the main lighting system in operation if the rider so desires.

The generator is of the inclosed type, being absolutely dust and water proof, and unaffected by rain or damp weather. It is wound to deliver its proper voltage at 2000 r. p. m., which is attained when the motorcycle is traveling 12 miles per hour, and it is mechanically governed to hold 2000 r. p. m. from 12 miles to 60 miles per hour. When the motorcycle is traveling at less than 12 miles per hour, or has come to a complete stop, the lights are supplied by the storage battery. The output of this generator is never drawn upon to its fullest capacity. For the benefit of those who do not understand electricity the generator output or load is figured upon the basis of a light drawing 1.3 watts per c. p.; therefore, a headlight of 8 c. p., a tail-light of 2 c. p., and for those who want them, a speedometer light of 2 c. p. will make a total of 12 c. p., or 16 watts. Sixteen watts divided by 6 volts will equal 2 2/3 amperes for lights. The battery will draw 1½ amperes, making a total of 4 1/6 amperes out of a possible 6, so it can readily be seen that the generator is never overworked and has reserve power for an electric horn or larger headlight if the rider should desire it, but it is thought by the manufacturers that 8 c. p. will be found sufficient.

The armature is especially wound to meet the requirements of a motorcycle lighting outfit, having the same power as an automobile outfit but using one-third the space. It is mounted on the best of imported ball-bearings, as well as the governing mechanism, making it very easy running under load; it does not consume more than one-twentieth of a h. p. at any time.

The brushes (which are a source of great annoyance in most generator sets) are made as nearly suitable to the requirements of this outfit as can be manufactured, the original test set now being used by the makers having gone nearly 10,000 miles, and the brushes are still in good condition. The majority of manufacturers employ laminated copper or bronze in the making of brushes for generators, which in thorough tests has proven unsatisfactory. The brushes used in this set are of a composition imported from France, which contains every essential quality of the laminated brush, and in addition enough lubricant to eliminate rapid wearing. They are so situated as to be easily accessible.

The governing mechanism and friction drive is also inclosed in a water-and-dustproof case, pivotly mounted on the end of the generator frame and held against the front tire through the medium of a coiled spring, which also takes care of any uneven running of the front wheel. The friction drive consists of a 12-disc, multiple disc clutch, which is considered by some engineers to be in advance of the cone or flat-face type of clutch, for flexibility and efficiency, and this in turn is controlled by the governing members, which can be adjusted to produce from 4 to 10 volts at 12 miles per hour or faster.

The connection between the driving mechanism and generator is not by bevel gear, as one would at first suppose, but, by what is termed among mechanical men—the silent-pin drive, case-hardened steel pins meshing with a cut fibre gear on the generator shaft and making it absolutely silent. The headlight is spun of one piece of heavy gauge sheet brass with no small parts to jar loose and drop off, and mounted with drop forged brackets to the generator frame in such a manner that the light can be thrown very close to the front wheel or raised up to throw a long distance in advance of the machine. It can be furnished in either black japan, with nickel trimmings, or in polished brass.

The reflector is a true parabola which will throw a clear white penetrating light fully 500 feet in advance of the rider, or a wide fan-shaped light the width of any city street. It is also made of heavy spun brass with nickel silver reflector and fitted with a focusing candelabra socket and an 8 c. p. tungsten globe, the best that can be obtained for use where vibration is a serious contention.

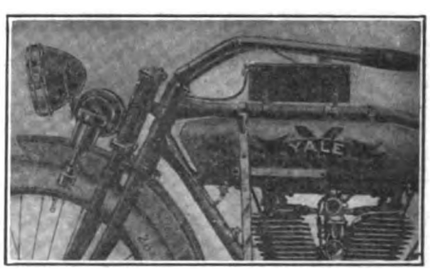
The tail-light and number bracket are cast of one piece of high-grade aluminum, insuring its always being in proper position, and is finished in black japan or polished aluminum. It meets all the requirements of the various State laws, inasmuch as it displays a brilliant red light to the rear and has a white jewel on the top, which illuminates the entire license number. It can be used on a machine carrying a tandem or luggage carrier as well as on one without this fitting.

A four-way switch is employed for operating the lights and battery, which can be secured to the handlebar or to the top of the tank at the will of the rider. It is made of hard rubber and is absolutely water-proof. The wiring is all inclosed in a water-proof casing with different colored leads for the different lights; with the aid of the diagram an amateur can easily equip his machine with the outfit.

The storage battery question, which has in the past been a difficult problem to solve, as jars and vibration had to be contended with, has been entirely overcome in the battery used with this outfit. It is small and compact, considering its capacity, and can be mounted on the top frame tube of the machine like a gas tank, or in any other suitable place, i. e., the luggage-carrier, handlebars or in front of the engine, on single cylinder machines. Clamps for mounting it on top of frame bar will be regularly furnished.

The trouble light, which can be had as an extra, will be found to be very advantageous in the event of a puncture or engine trouble at night when no other light is available.

The electric horn is of standard make and very neat in appearance, giving a loud but not offensive warning. It is finished in black enamel or polished brass.



The Hughes & Wessling Outfit [illegible] to a Yale Motorcycle.

Mr. Wessling, one of the firm of The Hughes & Wessling Co., claims he has driven a machine equipped with this electric set since June 1, 1912, covering close to 10,000 miles, and that the wear is so slight it is hardly noticeable, the tire still being in very good condition. He is also using the original lamps.

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USING PARCELS POST

ADVANTAGE is being taken of the parcels post system by the Chicago branch of the Hendee Mfg. Co., for the shipping of parts to patrons who would otherwise be obliged to satisfy themselves with less speedy deliveries. Always on the alert to improve its service, the Springfield company has put in service an Indian delivery van which rushes all parcels post packages to the post office. Every afternoon at 4 o'clock the Indian van carries a shipment of parcel post packages to the Chicago office.

The large number of agents who are now ordering Indian parts from Chicago are availing themselves of the advantages of the parcel post to such an extent that there has been at least $150 or $200 saved in the aggregate to the various agents since January 1 on transportation alone. It is the intention of the branch to ship all goods by parcels post, unless otherwise specified, for the reason that it is a saving to the customers who are continually ordering small parts for the trade.

The parts department of the Chicago branch has been enlarged, and now occupies the entire second floor of the building at 1251 Michigan avenue, where a large supply of parts of all kinds for Indian machines is ready for immediate shipment.

OLD OFFICERS RETAINED

AT the annual meeting of the Republic Tire & Rubber Company recently, at Youngstown, Ohio, all the old officers and directors were re-elected. The year 1912 was a banner one, and a number of extensions were made, including a new shop, which greatly increases the capacity of the plant.

The officers and directors follow: President, T. L. Robinson; first vice-president and sales manager, J. H. Kelly; second vice-president, L. T. Peterson; secretary, C. F. Garrison; treasurer, M. I. Arms; general superintendent, A. H. Harris; directors, John and David Tod, J. C. Wick, H. K. Wick, M. I. Arms, C. H. Booth, Robert Bentley, J. H. Kelley, A. H. Harris, L. T. Peterson and T. L. Robinson.

DETROIT OUTLOOK IS BRIGHT

DETROIT, Mich.—It is likely that Detroit's two motorcycle manufactories that at the present time are in the hands of receivers will be in operation within a month under new management. At least there are steps now being taken to re-organize them both.

In the case of the Triumph Motorcycle Co., information which comes from an authoritative source is to the effect that the old officers of the concern are taking steps toward taking care of the indebtedness and again placing the business beyond financial difficulties. The factory, which now is in the hands of the Security Trust Co., as receiver, has not been in operation since the courts made the transfer and according to the information the transaction may be closed in a week or two.

The Detroit post office department is giving the motorcycle a trial as a parcel post means of delivery. A machine has been equipped with a special carrier and will be given a thorough trial and if found practical more probably will be pressed into service.

ADOLPH KLINE and Doyle Obie, of Hutchinson, Kan., have just completed a 1,000-mile trip by motorcycle through Kansas and Oklahoma, and are now planning to cross the Rockies in the spring.

SPACKE MOTORS

DE LUXE motors in both plain and two-speed types are attracting much attention at the show stand of the F. W. Spacke Machine Company, of Indianapolis. Eight motors in four sizes are on exhibition, including two motors in section to permit of the fullest inspection of their internal makeup. The company is also showing a full line of detail motor parts.

In each of the motors four distinctive features are holding the interest of visitors: The racing type roller connecting rod crank-pin bearings in the twins, the simple priming device, the improved splash oiling system and the enclosed intake valve levers and pins

The enclosed intake valve lever and pin arrangement consists of the enclosing of all these parts in a case, which is filled with hard grease and graphite. This construction keeps the parts clean, and has a silencing effect.

Perhaps the newest and most interesting feature of this exhibit is the new 1914 line of De Luxe two-speed unit power plant motors. These two-speed motors are the same as the standard plain motors in every way, except that a gear box containing a two-speed transmission and free engine feature has been added to the rear of the motor and made an integral part of it.

The transmission is of the sliding gear type, with the gears constantly in mesh. All gears are of ample pitch dimension and face width, and the shafts are hung on annular bearings. The control is operated by a single lever, one extreme of the travel of which represents high gear, the other, low gear, and the center position free engine.

The Spacke Company offers the two-speed motors in four sizes, the same as the plain motors, but states that deliveries in quantities will not be available before April 1. De Luxe two-speed motors are especially well adapted to motorcycle, side and tri-car use.

AMONG THE MISSING

A BLUE, magneto-model Haverford motorcycle has been stolen from F. J. Wilhelm, of 114 North Erie street, Toledo, Ohio. It was equipped with Kokomo 28 x 2½ tires, and an A. K. luggage carrier with red cushion, a Prest-O-Lite tank and a large lamp. The regular F. A. M. reward of $25 will be given for its recovery as well as the $25 offered by the owner.

PLAN ENDURANCE RUN

AT a recent meeting of the Urbana M. C., of Urbana, Ohio, arrangements were made for an endurance run to be held in the spring, and club officers were elected. The new staff: E. Holding, president; Forrest Toomire, vice-president; Fred Harenberg, secretary and treasurer, and John Hendrickson was chosen road captain.

PROVIDENCE M. C. BANQUET

PROBABLY the most important feature of the winter programme of the Providence (R. I.) Motorcycle Club is the annual banquet, which will be held Sunday, February 9. This is the seventh annual banquet of the Providence club.

USING HENDERSONS.

DR. FRANK MERRILL BELL, an aviator of St. Louis, Mo., using the Benoist military tractor biplane, is planning an exhibition tour of the gulf-coast resorts. He will carry as part of his equipment two Henderson motorcycles for errand and messenger service.

"SERVICE" THE WATCHWORD

"THE future of the automobile industry lies with the dealer," said H. S. Quine, of the Goodyear Tire and Rubber Company, in a speech delivered at the Hotel Astor during the show, "and the same statement applies with almost equal force to motorcycles.

"Without the dealer's desire to sell satisfaction, to give service and save the consumer money, the industry will suffer. And service consists in having what the motorist wants, where he wants it and when he wants it. For that reason the garage owner should handle accessories and the tires, and all the many things motorists need. The logical place to look for automobile necessities is the garage where the man bought the car, and if he is not enabled to get them he is disappointed.

"It is unfortunate that many garage men aim only at the large profit. They do not seem to realize that success lies in having a large volume of sales with small profits.

"But there is a new dealer today. He is a liberal user of newspaper space; he advertises and goes after the buyer. He applies system to his garage and knows what turns over quickly and what does not. And money is made on turnovers and lost on leftovers. This man applies modern merchandising plans to his business—and he never complains that business is going to the dogs.

"So it is the manufacturers' duty not only to protect their dealers in the matter of price, but also to give their dealers every manner of selling assistance—to help their dealers sell their goods and give them buyers as well as stock.

"It is pleasant to note that manufacturers are united in their efforts to give the ultimate consumer service, and this policy is bound to give a tremendous impetus to the industry."

HUSTLING NEW MANAGER

ARNOLD RAUDNITZ, well known wherever motorcycles are used in the New York district, has accepted the management of the motorcycle department of the Lowe Motor Supplies Company, of 1727 Broadway, corner Fifty-fifth street. With the heartiest kind of co-operation on the part of the Lowe Company, Mr. Raudnitz is busily engaged in the task of making his end of the business a credit to the motorcycle trade in Greater New York. He has secured the Greater New York distributing agency for the Jefferson, and also the sales agency for the Monarch, covering the entire country, exclusive of territory where agencies have already been established. Within the past fortnight, Mr. Raudnitz has lined up eight sub-agencies for these two machines.

His department will carry a full line of motorcycle supplies, which will be shown in a large and handsome catalogue now in preparation. The storeroom is being remodeled, and the window of the motorcycle department will be laid out on the lines of those of the big Broadway automobile agencies, so that Manager Raudnitz will be in position to display his machines to the best possible advantage.

HEDSTROM ON VACATION

OSCAR HEDSTROM, vice-president of The Hendee Manufacturing Company, Springfield, Mass., is taking his first actual vacation in years. He has gone down to Alabama on a quail hunt with Robert Stubbs, of Birmingham.

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F. A. M. BACKS LOS ANGELES CAMPAIGN

THAT quick and definite results are possible when motorcycle affairs in any section of the country simmer down to a concrete demand for action by the F. A. M. is evident from the outcome of an exchange of telegrams on Wednesday, January 29, between State Commissioner R. Y. Leslie, of Pasadena, Cal., and Chairman J. Leo Sauer, of the F. A. M. National Committee on Legal Action. For some time past the Los Angeles M. C. has been planning to take a hand in influencing state and city legislation of interest to motorcyclists, and at a meeting on January 28, which was attended by State Commissioner Leslie, the club requested official information as to what material assistance could be expected from the Federation in the movement to improve motorcycling conditions in Los Angeles and throughout the state.

Commissioner Leslie, one of the most active officials in the western wing of the F. A. M., expressed his belief that the Federation was prepared to assist in the proposed campaign by a substantial donation and he agreed to place the matter before the Legal Action Committee at once. Accordingly, he sent the following telegram to Chairman Sauer:

Legal Action Committee of Federation Pledges Substantial Donation to Assist in Obtaining Legislative Reforms for Coast Riders

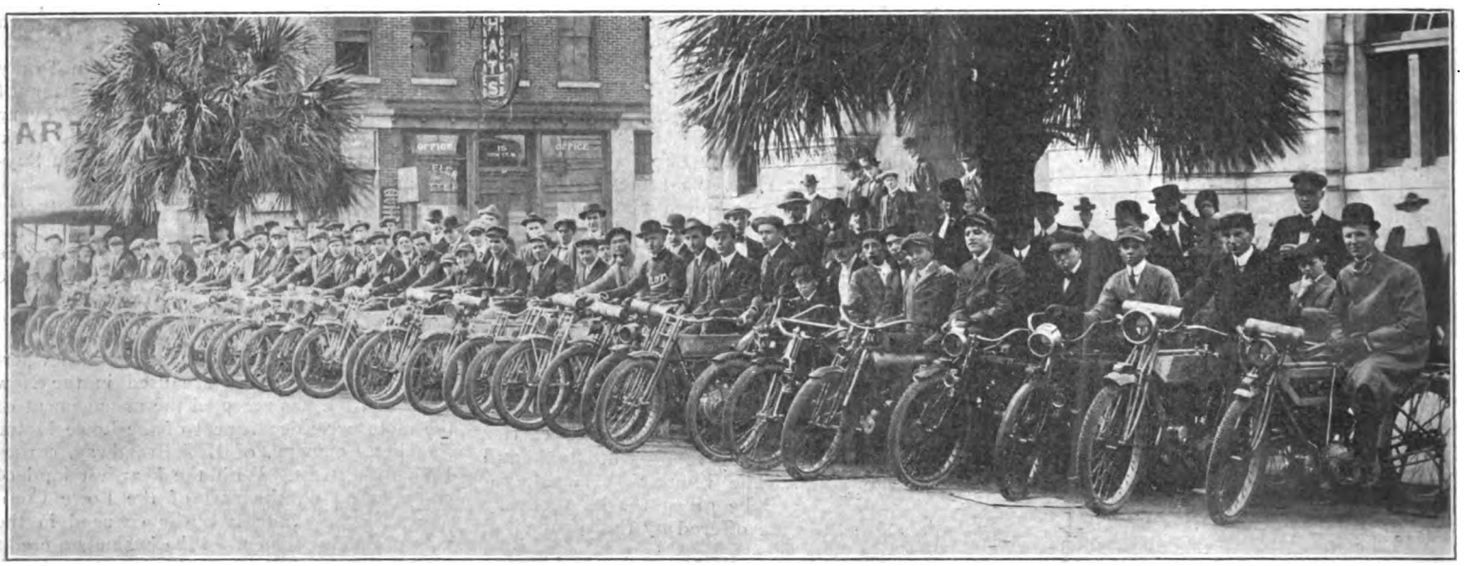
"Los Angeles Motorcycle Club wishes to know amount F. A. M. is willing to expend to bring about desirable legislation in state and city legislature now in session. May be necessary to send some one to Sacramento to look out for our interests. Moore and I at club meeting last night. Have written."

Immediately upon receipt of this telegram Chairman Sauer expressed the sentiment of the National Legal Action Committee, relative to co-operation with California motorcyclists, in a return wire which read as follows:

"Federation American Motorcyclists will contribute amount up to two hundred dollars to help effect desirable motorcycle legislation in state and city. If upon my arrival in California I find that larger fund is needed I will so recommend to our Board of Directors. Will reach Los Angeles, March 15."

Ever to the fore where the best interests of motorcycling are concerned, regardless of state lines, the Los Angeles club has been one of the most potent factors in the development of the sport on the Pacific coast, and its present movement for more satisfactory regulations is likely to result in similar activity throughout neighboring states. Speaking broadly, the club seeks to have reasonable laws adopted with reference to licenses as well as speed limits, and to have these regulations given general application. At present the California tourist never knows what new legislative wrinkle is going to present itself in a small out of the way town, and on more than one occasion during the last year parties of riders have been seriously inconvenienced through conflicting with outlandish speed and license laws as applied by local constables.

With the moral and financial backing of the F. A. M., and directed by as enthusiastic an official staff as is to be found from coast to coast the Los Angeles club is more than likely to gain its ends and thus pave the way for legislative revisions in other districts of the Far West that have long felt the necessity of more liberal interpretation of the laws as affecting motorcyclists.



Members of the Savannah (Ga.) M. C. Lined Up Prior to a Recent Run. The Savannah Squad is the Most Active in the South.

OYSTER ROAST FOR RIDERS

SO successful was the first mid-winter run of the Savannah (Ga.) M. C., that the following meeting brought forth an announcement of a run to be held the Next Sunday. Forty-eight machines were lined up for the start. The affair turned out to be a sightseeing trip to Kings Ferry, less than 20 miles distant. On returning the boys proceeded to Wheelman's Inn where an oyster roast was furnished by the club. Many of the riders were non-members and while the boys were eating Captain Balmer and President Williams distributed cards to those not connected with the club. This resulted in the addition of 21 members.

At the last meeting of the club it was decided to raise the club dues, which are now $3 a year.

THE Temple Hill Motorcycle Club was recently formed in Trenton, N. J.

OFFICERS ARE POPULAR

A NOTABLE feature of the recent annual election of the Providence (R. I.) Motorcycle Club is the fact that the president, secretary and treasurer, who already have served four terms each, were re-elected. The present staff is as follows: President, E. L. Buffington; secretary, J. G. Edwards; treasurer, B. A. Swenson (oldest officer in the point of service); captain, Edward G. Luther; first lieutenant, Charles W. Rayhill, and second lieutenant, George W. Lane.

READY FOR NEW SEASON

MEMBERS of the Grand Forks M. C., of Grand Forks, N. D., recently met in the local Y. M. C. A. building and elected officers. Sherman Schlosser was named president; M. Brawer, vice-president; R. P. Read, secretary; E. Supernant, treasurer, and John S. Olson was chosen to fill the office of club pessimist.

WORCESTER M. C. STAFF

CHARLES E. BRAMAN, Jr., was elected president of the Worcester (Mass.) M. C. at a recent meeting; Arthur R. Goodwin is the new vice-president; C. N. Robinson, secretary; William H. Tannebring, treasurer; William G. Cornell, road captain; Warren B. Bye, first lieutenant; Roy L. Dow, second lieutenant, and Charles H. Adams, governor for five years. Harry L. Cutting was appointed a governor to fill a vacancy.

ANOTHER HELPER NEEDED

ON account of the rapidly increasing work at his National headquarters, Secretary Gibson has added another helper to his staff. There are now five people constantly at work on F. A. M. matter in the secretary's department.

MEMBERS of the Houston M. C. recently made a run to Richmond, Tex.

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CANADIANS AWAIT NEW CYCLECAR

Informal Announcement and Tentative Specifications Arouse Much Interest in Product Promised by Calgary Designer—Newcomer Will Have About 10 Horsepower and V-Belt or Belt and Chain Transmission

FROM Calgary (Alta.), Canada, comes the announcement that plans are being developed there to market a small car or a "cyclecar," having many features which will make it desirable for travelers, light touring work and nearly all town work. Different engines will be tried out, among them the 8 h. and the 10 h. J. A. P. engines, the Peugeot 7-9 h. and the Spacke 9 h. The car will have a wheelbase of 8 feet 4 inches or 8 feet 6 inches, and a track of about 4 feet 6 inches. The frame, for regular work, will be of ash, 2 x 3 inches and suitably braced; springs 1½ x 30 inches, wheels 26 or 28 inches, tires 2½, 2¾ or 3 inches. For racing, a tubular frame is being considered, and it is thought that on a straightaway a speed of close to 80 m. p. h. can be obtained with an 8 h. J. A. P. engine. The drive is not yet settled upon, but will probably be "V" belt or chain from engine to countershaft, then "V" belt to another countershaft, and then two "V" belts, one to each rear wheel.

On the second countershaft will probably be a device which gives an automatic change of gear ratios; that is, depending upon the amount of gas the engine is being given, and the pull on the back wheels. Briefly, it consists of two spring flanges, one to each pulley, so that the driver may go down a street at 5 m. p. h. on high gear, and then, if he desires to pick up quickly, he merely opens the throttle, and the pull of the engine forces the flanges apart until the spring resistance checks the outward movement of the flanges; then as the engine picks up speed and the car gains headway, the pull grows less and less, and the springs close up the "V," thus raising the gear again. A differential gear will also be incorporated in this countershaft, although details of it are carefully guarded by the designer. Perhaps it should be described as having a "differential effect," as there will be no differential gears. Steering will be of the Ackerman type, as these parts can be obtained from several good firms in England.

It might also be stated here that one can obtain differentials and back axles complete with brake drums and hubs, etc., if so desired, at a nominal cost, but it only adds to the weight. The specialty of the designer will be to build cars to order, and one may have a shaft-drive machine with three speeds and reverse, a 4 to a 10 h. motor, a body with one or two seats, detachable wheels or almost anything by paying the price. In the belt or chain-belt driven models the engine will be placed lengthwise in the frame; in the shaft-driven models crosswise, with starting crank in the front, whereas the chain-belt machines will be started with a handle at the curb-side of the machine. Such equipment as lamps, top, windshield, etc., will be left to the purchaser to select. The price of the machine complete will be about $650, depending on the transmission, size of tires, horsepower of engine and so on.

The designer figures that with an 8 h. engine and belt drive throughout he will be able to get the weight of the machine down to about 400 pounds, and lighter than that when stripped for racing. The question of overheating of an air-cooled motor is not a very serious one, as a fan will keep a good supply of air circulating under the hood, which will have a partially open front. If a purchaser desires, however, he can obtain at small extra cost a water-cooled engine with radiator, but the question of weight again enters the problem, and so it is thought that air-cooled motors will be most widely used. With a machine weighing not more than 500 pounds, it is expected that at ordinary speeds one can get 60 miles to the gallon of gasoline, and possibly more. Where water-cooled engines, gear boxes, differential gears, etc., are used, the mileage will come down somewhat.

The designer thinks that this car will fill a long-felt want, in that it will have all the comforts of a full-grown car and practically the economy of the motorcycle. These cars are said to have a wonderful "pick-up," and when used on slippery streets with tire chains they are said to be safer than any other kind of a vehicle.

LONDON M. C. PROGRESS

ONE of the most influential motorcycle clubs in Canada is the London M. C., of London, Ontario. The club has just held its sixth annual meeting at which time officers for the year were elected. The London M. C. was the first motorcycle club in Canada and one of the three clubs to organize the Canadian Motorcyclists Association. Fully seventy-five per cent. of the motorcyclists in London are enrolled in the club despite the fact that another club has recently been formed there. The new club is the Forest City M. C. and has applied to the C. M. C. for affiliation.

J. W. Cunningham, who has been president of the London club since its inception refused nomination at the recent election as he has accepted the chairmanship of the competition committee of the C. M. A., to which he desires to devote all his spare time. W. G. Tite, president of the club, has been elected treasurer of the C. M. A.

Officers elected at the recent meeting are: President, W. G. Tite; vice-president, J. A. Barnard, secretary-treasurer, William Beamish; captain, G. L. Watkins; delegate to the C. M. A., Frank Benson. Edward Bissett was appointed chairman of the house committee; A. Thorpe, touring committee, and Bert Johnson, racing committee.

MARIETTA MEETING

AT the annual meeting of the Marietta (Ohio) M. C. the following officers were elected: Earl Oesterle, president; Fred Trapp, treasurer; Leslie Meredith, secretary; Arthur Bender, road captain, and Arthur Maskrey and Robert Walker, lieutenants.

SYRACUSE M. C. ELECTS

AT the annual meeting of the Syracuse (N. Y.) M. C. the following officers were chosen: Harry Williamson, president; Fred Walrath, vice-president, and William St. John, secretary-treasurer. John Conroy was named road captain with Lawrence Schoffer as lieutenant. Jay B. Bixby, Percy Owens, Frank Scoville and William St. John form the board of directors.

Two Motorcyclists of Trenton, N. J., Caught in the Act of Putting an Empire Inner Tube to a Rather Remarkable Test.

NEW ORGANIZATION

AT an open meeting recently held in the Oak Room of the New Raleigh, the Washington Motorists' Association was formed. The new organization succeeds the Washington (D. C.) Automobile Club, but unlike the latter, includes in its membership motorcyclists as well as automobilists. This organization will co-operate with the Automobile Association, the Federation of American Motorcyclists, the National Capital Motorcycle Club, the local Board of Trade and the Merchants' Association in fighting arbitrary and unjust legislation, in advocating good roads and in promoting the interests of motorists in general.

Harrington Mills was elected president of the association; W. W. Chiswell, vice-president; John K. Heyl, secretary-treasurer, and W. S. Duvall, attorney. W. C. Long, W. D. West, J. M. Stoddard, Claude Miller and O. J. DeMoll compose the Board of Directors.

Announcement also comes from Washington that the Commissioners of the District of Columbia have refused to grant the request of the National Capital M. C. for revised passenger-carrying regulations. The commissioners state that there will be no hearing on the subject of the regulations adopted December 30 last, but that any written communication submitted to them will be considered.

A SALES IDEA

SEVERAL letters have been received by Secretary Gibson from holders of repair shop certificates, stating that they are presenting F. A. M. memberships to all purchasers of 1913 machines.

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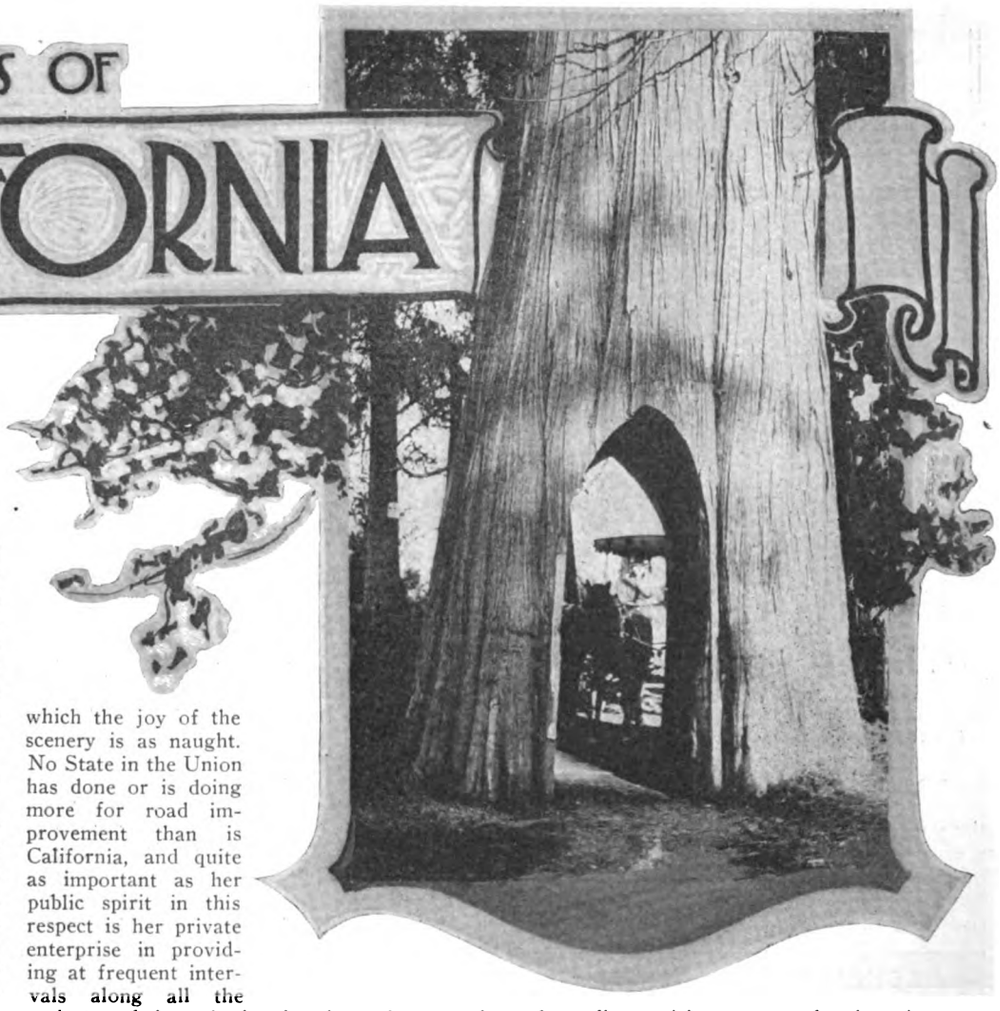
BEAUTY SPOTS OF CALIFORNIA

WALDON FAWCETT



THE American motorcyclist who, during the winter and early spring months, finds the roads and climatic conditions in his own locality not exactly to his liking for touring, is apt to think instinctively of Southern California. And assuredly it would be difficult to find in all the world a domain better adapted to winter touring than this "Land of Sunshine." Of course, the reader will understand that nothing is farther from our purpose than to insinuate that California is simply a winter touring field. On the contrary, California is calculated to captivate the lover of the broad highway at any and all seasons of the year, but naturally its pre-eminence, most forcefully impresses the resident of the East, or the Middle West, or the Rocky Mountain country, when snowflakes are flying at home.

Its balmy, yet bracing, air, its clear skies and ever-fresh vegetation, Southern California has had to offer to the tourist since tourist travel began, but it has, of course, been only within the past few years that this region acquired the attributes that render it doubly attractive to motorcyclists. The residents of the Golden Gate State were among the first to appreciate what the modern era of motor locomotion might mean for them, and with characteristic solicitude for the comfort of the stranger within their gates they lost no time in providing all those incidentals without which the joy of the scenery is as naught. No State in the Union has done or is doing more for road improvement than is California, and quite as important as her public spirit in this respect is her private enterprise in providing at frequent intervals along all the main-traveled roads, hotels where the nomad may find food and shelter—obligingly gauged to the length of his purse.

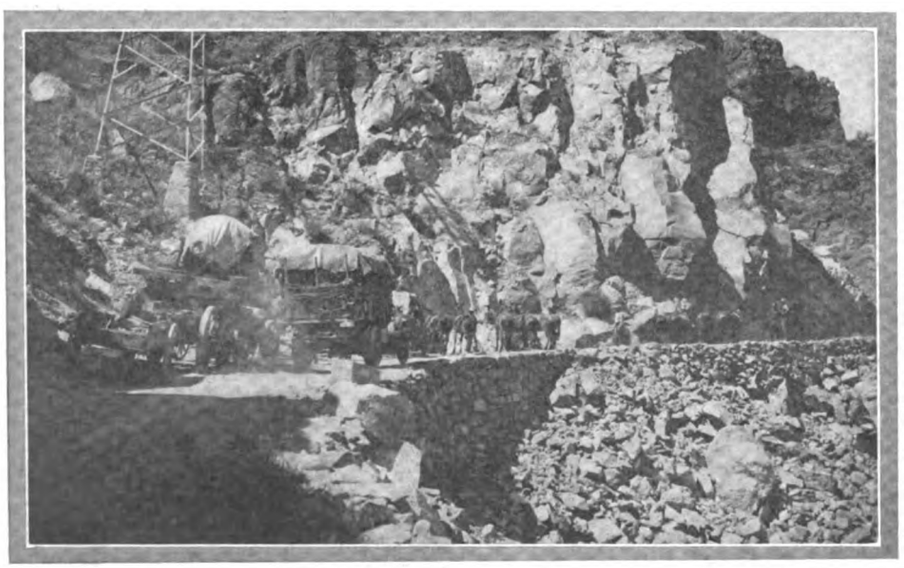
MATCHLESS OFFERINGS FOR TOURISTS.

These are the circumstances which (even without taking into consideration differences in cost, render Southern California the formidable rival of the Riviera or any of the other winter playgrounds of the Old World where Roman roads and ancient wayside inns of excellent cuisine were on hand, as it were, awaiting the advent of the motorist. Indeed, by this measure of comparison California deserves no end of credit, for whereas most of the popular touring districts of Europe have had to do but little to adapt their time-tried qualifications to the needs of the touring riders, the Golden Gate State had only her matchless scenery and climate as a heritage, and all the creature comforts that beguile the wanderer on pleasure bent she has had to create—and in an almost incredibly short time.

California has one powerful magnet for the touring motorcyclist in that he may reach his goal on his machine—by a sunny route through Texas, New Mexico and Arizona, if he chooses—instead of being compelled to curb his impatience for cycling during a long ocean voyage as would be the case were his objective, say, the shores of the Mediterranean. And arrived on the Pacific Coast the rider finds spread out before him a touring field which seems to duplicate, as possibly does no other in America, every advantage of scenery, association, history, environment and human interest that is claimed for the storied "show places" beyond the Atlantic.

COMPARED WITH FOREIGN SHOW PLACES.

And because every globe-trotter or would-be globe-trotter is prone to compare California, not with tourist meccas here at home, but with those over seas, let us pause for a moment to consider the advantages which are usually claimed for Europe over the United States,—California included. One of these arguments in behalf of Europe is the variety of the European panorama,—the circumstance



How Road Builders Work in California.

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that comparatively little travel brings a complete change of scene. A second claim is for the historical interest supplied by the ruined castles and the cathedrals, centuries old. And a third,—to many, the most potent of all,—is the opportunity to see a picturesque present-day life, imbued with quaint customs and the color of fantastic costumes.

For each of these, though, California has her foil. In her Pueblo Indians, with their unique terraced houses, she has, brought down to date, a civilization as old as that of Egypt, with the further circumstance that their pottery work, rug-weaving and basket-making presents handicraft that is the peer of anything to be found in Europe or the Orient. In the splendid ruins of the old Missions of the Spanish regime California has relics which in historical interest and certainly in architectural value vie with the average castle abroad. And where is the fair or kermes abroad which so fills the eye as one of the modern carnivals of flowers or the rose battles which are events of the mid-winter season in California.

VARIETY IS THE BY-WORD.

As for variety, the very word is synonymous with California,—variety in scenery, variety of climate, variety of occupation, variety in all that goes to make up environment or that elusive something we are apt to refer to as "atmosphere." But what wonder that there is variety in all the more superficial phases of existence when anything approaching uniformity, much less monotony, is unknown even in the main essentials,—the basic features which make for character. Thus California has within her borders some of the highest as well as some of the lowest land in the United States, her snow-capped mountains look down upon valleys where oranges are ripening; magnificent forests with the largest and tallest trees in the world are distant but a few hours travel from dry and barren deserts; and glacial fields of ice but emphasize the delights of placid bays where every acquatic sport may be indulged in the whole year round.

Unquestionably this wealth of nature's bounty is due not less to the enormous area covered by the Golden Gate State than to her geopraphical form. Only Italy,—to which she is so often compared,—and the South American Republic of Chile can compare with California in possession of a far-flung coast line. Taken all in all however, this American El Dorado finds her closest counterpart in that other Promised Land,—the Palestine of the Bible. Each country presents the spectacle of a comparatively narrow strip of land facing a western sea and shut off from interior deserts by high mountains, and each country is prolific of those varieties of fruit which the world's epicures esteem most highly. But, whereas Palestine must needs fall back upon the glories of history to compensate for modern decay, California has drafted both history and nature to create the ideal twentieth century setting for open-air life.

NO STRICT TOURING PLAN NEEDED.

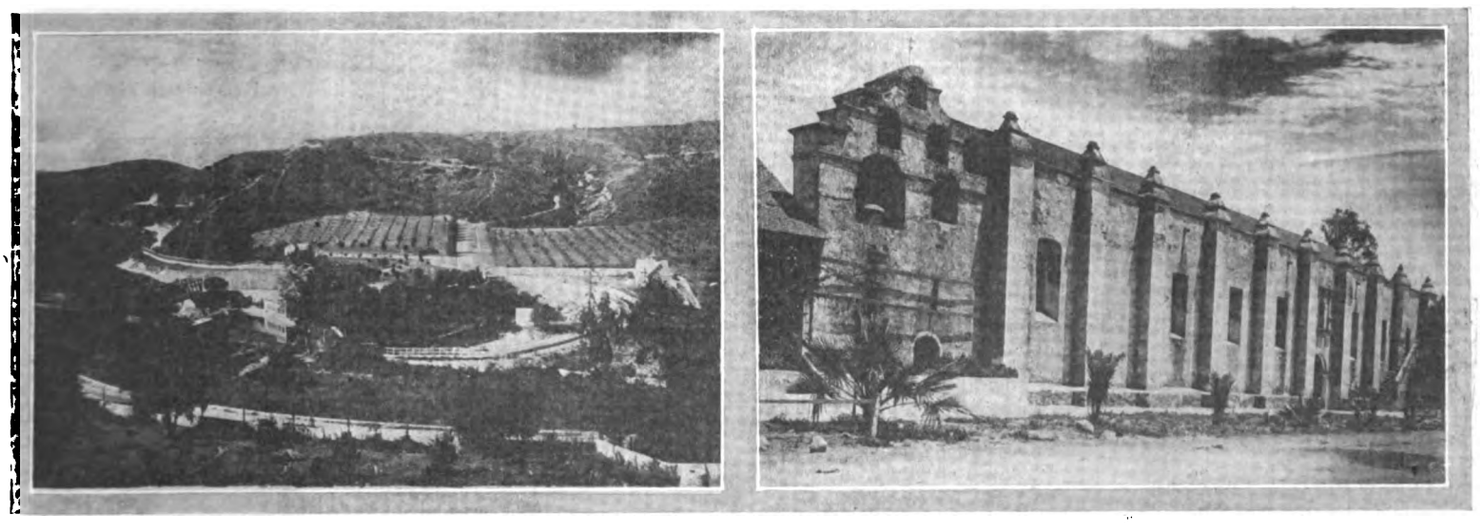
Whereas Southern California is, of course, the winter mecca, it need not be supposed that the motorcyclist must confine himself to that section. The rider who feels that he will probably have to content himself for all time with such glimpses of the empire of the Pacific as he can obtain during a winter tour need not despair for in all of California and particularly along the coast the winters are comparatively warm. It is only from the most elevated mountain resorts that the midwinter tourist is barred if he be a slave to comfort and even in such localities the roads are rarely impassible. Incidently it may be said that the motorcycle is the ideal vehicle for the tourist who would taste of all California's varied delights in a vacation of limited length. Without such a conveyance the most energetic traveler would be balked in an effort to "cover" expeditiously a State that if it were transferred to the Atlantic coast would extend all the way from Boston to Savannah.

To the motorcyclist atour there are several different plans available for viewing the beauties of California's summits, sea and shore. The sightseer awheel may zig-zag up and down or back and forth across the State, pausing in his progress as fancy dictates. Or he may select one city after another as successive "bases" for touring and from these pivots (each insuring ample hotel and repair facilities and adequate gasoline supply), invade the surrounding country in all directions. The selection of a traveling program can be dictated wholly by personal preference, for although California is a country of magnificent distances the speed of the motorcycle and the good roads enable the rider to ignore to a great extent the limitations that would beset the traveler dependent upon any vehicle not motor-propelled. Moreover, hospitality is so free and universal in this land of sunshine that the rider need not fear to be overtaken by nightfall in a locality devoid of hotels.

SOME CENTERS OF INTEREST.

Foremost among all the touring centers of Southern California is Los Angeles, the pleasure capital of the land of enchantment. Located some sixteen miles from the Pacific ocean, Los Angeles impresses every visitor as not only a particularly beautiful but a particularly up-to-date, modern city with all the to-be-expected attributes, including well paved streets and boulevards. At the same time there is in the very air something of that care-free element which suggests the large leisure class of well-to-do residents. From Los Angeles there radiate in every direction, like the spokes of a wheel, fine roads that, according to the direction chosen will bring the motorcyclist to scenery of almost any character sought.

Seaward, fringing the bay of Santa Monica, and dotting the coast for a distance of many miles are a chain of beach resorts of which the famous Long Beach is the most widely heralded, but all of which are worthy of a visit by the motorcyclist who would come under the spell of a surf-swept strand. In the opposite direction, and only about six miles from Los Angeles, nestling at the foot of the Sierra Madre Mountains, is the city of Pasadena, which has been fantastically termed "The Dimple of California's Smile." Pasadena is a vast hotel and cottage colony, but rides up and down its streets will repay any person who is interested in homes of unique and attractive architecture,—the California bungalow and the cement "mission" house are here seen at their best,—and an admirable system of highways so links Pasadena with the mountains that surround the city on three sides that the motorcyclist can have a taste of tobogganing mid the snow-fields in the afternoon and be back in town in time to pick from the trees the oranges for his supper.



An Impressive View of Lower California Scenery and One of the Picturesque Old Missions.

IN THE SAN DIEGO DISTRICT.

Santa Barbara is another touring center of Southern California, which in the estimation of many persons, rivals if it does not surpass Los Angeles, not only in its own attractions but in those of the district which surround it. Santa Barbara is picturesquely

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placed between the mountains and the shore, and two of her boasted possessions comprise the beautiful Santa Barbara Mission and the much-praised Mountain Boulevard, which affords the rider an amazing moving picture of the estates of many of California's wealthiest residents. Within easy striking distance of Santa Barbara are a number of worth-while places of interest, including Ventura, which like so many Southern California towns has its old Spanish mission to give dignity to the landscape. Near this particular mission are several palms which are said to be the oldest in California.

Southward from Los Angeles, a run of about 160 miles will bring the motorcyclist to San Diego, and a more interesting ride can scarcely be imagined. During a considerable portion of the distance the rider may keep within sight of the Pacific and its beautiful surf, and when he arrives at what may be accounted our southernmost city on the Pacific he is confronted with the sight of a magnificent bay, affording a perfectly sheltered area 22 square miles in extent where the water pastimes are so fascinating that your average rider can be counted on to temporarily forswear allegiance to his motor hobby. San Diego is a progressive modern city,—busy with preparations for the exposition in 1915, which she is determined shall not be overshadowed by Frisco's show,—and days' may profitably be spent with this community as the hub for excursions.

A JAUNT INTO MEXICO.

Just across the bay from San Diego is Coronado Beach, one of the wonder spots of California and at Point Loma the touring rider may visit the impressive headquarters of "The Purple Mother." Some dozen miles from San Diego is La Jolla with its ten wave-carved caves and the motorcyclist who is keen for all the sensations a tour can produce will,

A QUARTET of rider-salesmen who are members of the Yale "Flying Squad." These boys are plugging all kinds of roads in the interest of the sturdy Toledo products, and doing big business.

of course, want to take a 15-mile spin southward from San Diego to the Mexican line. There he can cross the border to the little village of Tia Juana which figured rather conspicuously in recent exploits of the revolutionists and, if the normal peaceful conditions prevail, he will have opportunity for a variety of tourist "experiences" ranging all the way from mailing to friends a selection of the gaudy Mexican souvenir post cards to attending a full-fledged bull fight.

Moonlight touring is a very popular fad in Southern California, and one to which the average visiting motorcyclist is quickly converted. The California scenery, particularly along the shore, has an especial fascination as illuminated by the silvery light and the wide, gleaming white roads extend a most insistent invitation. Not infrequently riders set out for an excursion of this kind at eleven or twelve o'clock at night and cover fifty to one hundred miles ere they seek the downy couch.

Nor must the reader suppose that because comparatively short tours,—as from a centrally-located "base,"—are a favorite means of "doing" California there is neglect of the long-distance straightaway runs; for the latter a State one thousand miles in length obviously offers many advantages. An ideal route of several hundred miles is that from Los Angeles to San Francisco. Or, better yet, from San Diego to Frisco. Such an itinerary can be made to embrace almost all of the show places above enumerated and also, getting nearer to San Francisco, those beauty spots on the Bay of Monterey,—Monterey, itself, Del Monte, Pacific Grove, Santa Cruz and its neighbors. Monterey, which was the capital of California nearly a century and a half ago, still preserves much of the languorous, Spanish atmosphere, but this is tempered in some measure by the martial activities of the great U. S. Military Reservation at the Presidio.

NORTHWARD TO FRISCO.

This is a delightful district for touring and such is the marvelous evenness of the temperature,—only rivaled by that of Honolulu,—that the rider can feel the utmost confidence that never during the winter will the mercury register lower that 50 degrees. After he has enjoyed a visit to the grove of giant redwoods near Santa Cruz and has taken one or more spins over the vaunted Seventeen Mile Drive that begins and ends at Del Monte, the motorcyclist in quest of new worlds to conquer can push on toward San Francisco, but with San Jose and the Santa Clara Valley as his immediate objective. The entire valley is a garden but the bright, particular spot is terraced Los Gatos, perhaps the most picturesque of California towns.

A run of scant fifty miles along the shore of the Bay of San Francisco brings the rider to the California metropolis, and the most cosmopolitan of American cities. Thus ends the tour of Southern California proper, and it is a program to which months might profitably be devoted if leisure permits.

HOLLENBACH'S TRIP.

E. T. HOLLENBACH, agent for the Excelsior in Philadelphia, recently made a trip of 831 miles in 37 hours' actual running time, and the accompanying photo was taken upon his return to Philadelphia. He started the trip at Atlantic City, from which place he went to Philadelphia, New York, New Haven, Springfield, Boston and Providence. On the return trip he stopped at New London and Perth Amboy and finished the run in Philadelphia. Hollenbach is shown at the right with the hysterical cap upon his manly brow.

FRED J. OLSON, 333 West Franklin street, Paxton, Ill., forwards the accompanying photograph of a motor sled with which he has covered many miles over the roads throughout his district during the last month.

MOTOR SLEIGHING.

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PRINCE PLANS TO MOVE MILE SAUCER

Track Builder Has a Scheme to Tear Down Playa del Rey Course and Rebuild it in Los Angeles—Other Coast News

LOS ANGELES, Cal.—There is about as much touring on motorcycles in Southern California at one time of the year as another, and after the first rains the roads that are not paved, at once become most inviting. Therefore, at present you will meet about as many motorcycles as automobiles, when touring in the south half of the state, while for business the single track motor is everywhere. In the far north of California, however, winter is now on.

Just at present there is no motorcycle racing going on in this vicinity as the only board track, the Los Angeles Stadium, is being fitted up for cow-boy sports, which take place in February. There were three meets programmed at a mile dirt track near Oakland, which is the Brooklyn of San Francisco. Two meets were held here the first two Sundays in December; then the promoters had trouble with the riders. The sanction, which had been given to A. L. Osborn, the Denver referee, who is spending the winter in California, was cancelled and Referee Frank E. Carroll, of San Francisco, notified the riders and Osborn that the check for prizes, given him by the promoter, was worthless and that the races would not be run.

PLENTY OF RACING TALK.

The promoter then attempted to get up a meet at Sacramento, where there is a splendid mile horse track, but the meet did not come off.

Paul Derkum, who is known in the east as the manager last summer of the Newark track, planned a circuit of dirt track meets to begin January 12, with a big meet on the mile track at Ascot Park, Los Angeles. As he was unable to start with Los Angeles, on account of unsatisfactory terms to lease Ascot Park, which is temporarily rented to a dirigible balloon promoting company, the first meet was held on January 5 at Santa Ana, a city of 10,000 people, situated about 40 miles south of Los Angeles and about 100 miles north of San Diego.

This meet was a combination automobile and motorcycle affair, and in one way marks the beginning of a new condition of racing affairs on the West Coast. Recently there has been much fighting through the press and by way of night letter telegrams between the National Contest Board of the A. A. A. in New York, and the most influential automobile dealers and enthusiasts in Los Angeles, over the question of jurisdiction of automobile racing in California, finally resulting in the organization in Los Angeles of the Western Automobile Association, backed by the Los Angeles trade, the Los Angeles Athletic Club, which has a million dollar clubhouse, and probably as great financial support as any athletic club ever organized, and enthusiasts throughout California.

DERKUM IS ACTIVE AGAIN.

This meet at Santa Ana had a sanction from the F. A. M. for its motorcycle races and an understanding with the W. A. A., which was not fully organized, and therefore not prepared to issue sanctions.

Derkum staged his next meet at San Bernardino on January 26. He now plans to put on combination meets throughout the state, financed by one of the millionaire officials of the Western Auto Association, and will apply to the F. A. M. for sanctions for the motorcycle racing, while the W. A. A. has already agreed to sanction the automobile races.

PRINCE'S NEW PLAN.

Jack Prince has been working of late on his proposed track scheme at San Diego, and claims that he has secured a site for a motorcycle saucer. As to whether it will be one of his proposed new idea five-lap tracks or a quarter-mile track, like those at Cleveland and St. Louis, depends on the finances which are yet to be raised.

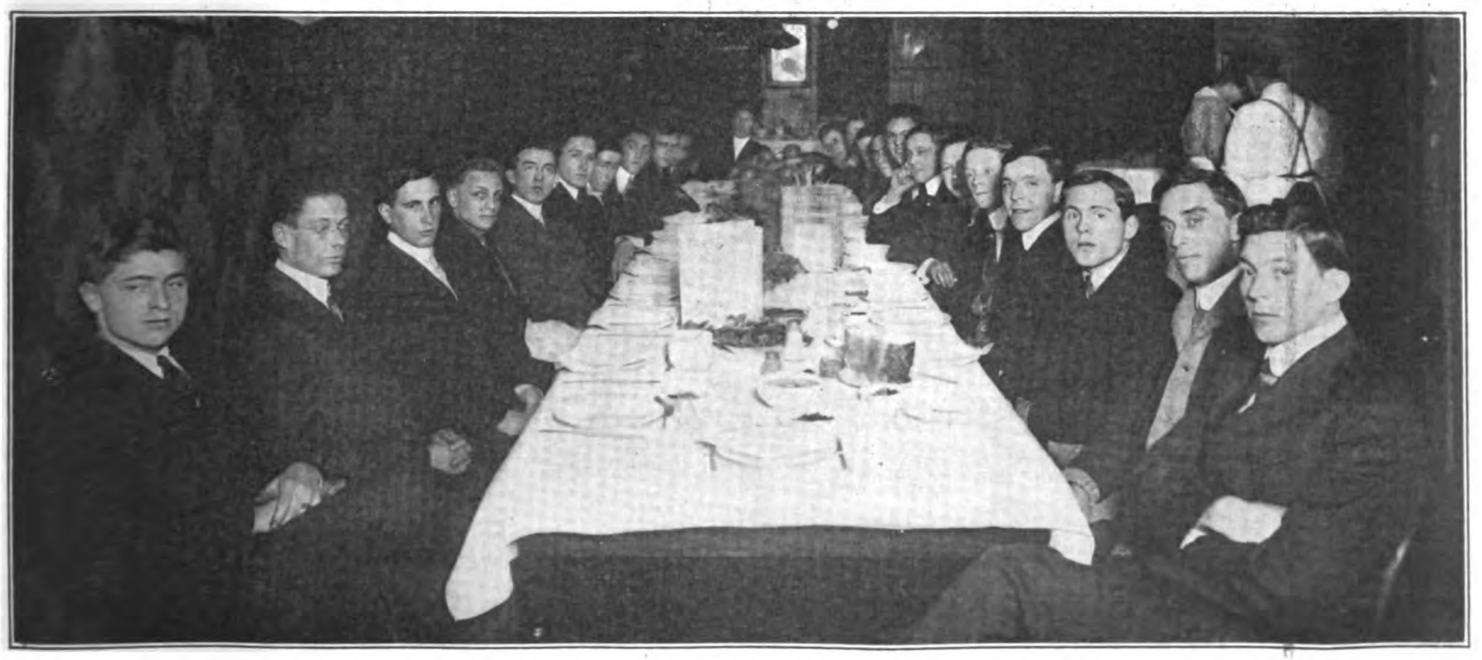
Prince is also working to build another board track at Los Angeles, although there is a perfectly good one in the Stadium. His latest "dope" is to tear down the mile piepan at Playa del Rey, which is near the ocean, and about 16 miles from the center of Los Angeles, and rebuild it at Ascot Park, in Los Angeles. This big board track, the only mile saucer track ever built, cost its owners, the railroad people who used to be known as the real owners of California, about $150,000 and has never paid expenses.

It is claimed that the 2 x 4 inch strips laid on edge for the track, with the tons of long spikes, each of which pierce four strips, form so solid a mass that the track itself cannot be successfully taken apart and put together again. Jack Prince thinks it can. But if this big board track is moved to Ascot Park, which is on the south edge of Los Angeles and so located that 20,000 people can be delivered there by the car lines in twenty minutes and at a five cent fare from all parts of the city, it will make motorcycle racing and record breaking more convenient and comfortable.

CLIMBING MT. WILSON.

To the east of Los Angeles, where the mountains divide the paradise of Southern California from the desert, rises a peak to an altitude more than a mile higher than Los Angeles. Up the side of this mountain a hundred years ago the mission fathers made a trail, which is still in use.

Recently this trail has been improved and motorcycles have often made the 9½-mile climb, which averages from 14 to 20 per cent. A few days ago Leroy Snodgrass, who manufactures the Superior sidecar, made the climb with a 4 h. Indian two-speed motorcycle, carrying a Superior sidecar and Mrs. Snodgrass. Mr. Snodgrass says that he made the whole climb without a stop. At present Mt. Wilson has a mantel of snow that comes down two miles on the road, and adds immeasurably to the dangers and difficulties of climbing.



Mansfield (Ohio) M. C. Members Ready to Begin Operations at Successful Annual Banquet Held Recently.

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IN the WHITE MOUNTAINS

H. MASON, proprietor of the Melrose Motorcycle Agency, of Melrose, Mass., handling the Henderson and Reading-Standard motorcycles for northern New England, recently planned a week's trip through the White Mountains for both pleasure and advertising purposes. A prospective customer was invited to ride a Reading-Standard 4 h. demonstrating machine, the only one in stock, and Mr. Mason was to ride a Henderson. Unfortunately the invited rider was stricken by appendicitis and one of the agency repair men took his place for the trip.

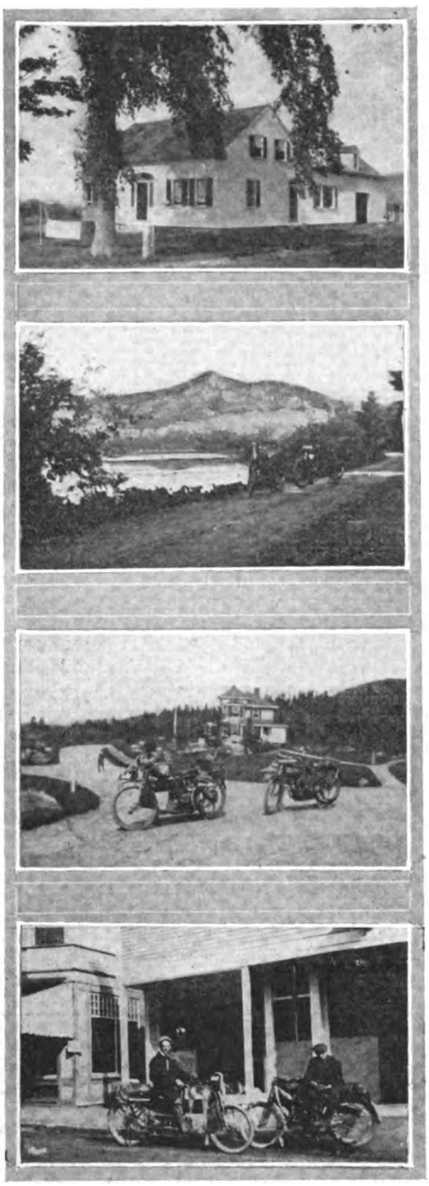
The route chosen was via North Andover to Haverhill, Mass., Newburyport to Portsmouth, New Hampshire, and then to Dover, all of which is over beautiful roads, and part of the way along the banks of the Merrimac River. At Dover few kind words could be heard regarding the road to Rochester, N. H., and small wonder. It is no picnic with an automobile, and as no side paths are available for motorcycles the sand causes much trouble. The distance is only eight miles, but a lot of excitement can be crowded into that short distance. Aside from one bump into a ditch by the Henderson, no annoying experiences were met with, other than the usual ones when deep sand is encountered. Both machines reached Rochester without mechanical or tire trouble. The run for the day was 85 miles.

Equipment for the Trip.

The equipment carried was mostly on the Henderson and consisted of a good tool kit, extra inner tubes, a good assortment of bolts, nuts and screws, blow-out and quick repair patches, with plenty of cement, a quick repair pedal, a few extra spokes and nipples, an extra belt, pulley lagging, extra chain links, extra brake parts, sweaters, a change of clothing and the usual toilet articles. High speed was not contemplated so there was no trouble in keeping clean.

The Henderson carried the usual forward tandem saddle, which could be used on either machine if necessary, but the only use it was put to for some time was to give a ride to some of the natives. A Prest-O-Lite tank was carried and an old Sol No. 8, in case night riding had to be resorted to. The R.-S. carried a gallon can of oil as insurance against trouble in the mountains, and the Henderson was equipped with a reserve gasoline tank, holding nearly two gallons. As it had rained the day previous and the weather was warm the roads were found to be in excellent condition.

After a good breakfast on the morning of the second day a start for North Rochester was made over rather poor roads, but as side paths frequently were available, the going was not as bad as on the day previous. The new State road was soon found and troubles were forgotten. Better dope regarding the Dover to Rochester route was obtained later, and it may help some other tourist. It is said that by going to Somersworth a good road is obtained to that point, and then the road from there to Rochester



From the Top: A Peaceful Scene near Ossipee, New Hampshire; at Lake Chocrua; in Suburbs of Haverhill, Mass.; Home in Melrose again, with riders and mounts in good trim.

is not in any part as bad as the other route. The hard going on this route is reported to be only about five miles against eight the other way.

Early in the day the R.-S. luggage-carrier worked loose and while making it tight a rider with an Indian 7 came along, followed soon afterward by the Indian agent at Union, N. H. Both were much interested in the Henderson, and the Aermore exhaust horn, which was demonstrated. Three horns were sold on the spot, which was good pay for the damaged luggage carrier.

Some Remarkable Views.

After leaving North Rochester a State highway is traversed to the mountains, and it is in excellent condition except for a few places where it is being repaired. Most of these are in Ossipee. Of course the hills are many and rather steep, but not too steep even for the R.-S. single. At Mountainview the day's ride ended, as it is the summer stopping place of Mr. Mason. Here a good dinner was ready. On a clear day the first good view of the mountains is obtained from the top of Milliken's Hill, in Ossipee. From this point can be seen 46 mountains, 26 villages, five counties and two States. This hill also gives the first good view of Mount Washington.

A start was made for Crawfords on Sunday about 8 a. m., and after Ossipee and its sandy spots were left behind, a most beautiful road was enjoyed passing through Conway, North Conway, Intervale and Bartlett, where a stop was made for oil, gasoline and lunch. While passing Lake Chocrua, a most beautiful view of the mountain was obtained and a stop made to perpetuate it by means of the camera. The morning's ride was of particular interest to the R.-S. rider, as it gave him his first view of a mountain. Hills he had seen, but mountains never before.

In Rolling Country.

The oil obtained at Bartlett was light, which resulted in foul plugs on the Henderson, but aside from that, the run to Crawfords, through the famous Crawford Notch, had no terrors for either of the machines. The road here was somewhat rough and muddy, due largely to the recent rain, which the heavy foliage prevented from being dried up as elsewhere. There are many turns and sharp hills. Fortunately the autoists in this district are mostly very careful or there might be trouble. The hills were not nearly as bad as was expected, except the old Tug-of-War hill near the Crawford end. The approach is unexpected and consequently both machines "fell down." It was tried over and both mounts climbed it.

Mr. Mason's brother-in-law is the station agent at Crawfords, and on his advice the "new" State road to the Mt. Washington Hotel was taken to procure a pennant. It was "new" in more ways than one. Mud and ruts 14 inches deep were liberally distributed all the way to a sign reading, "Not Passable for Motor Cars." That was plenty, so a turn was made down the fine road following the banks of the Ammonoosuc River. This is a beautiful piece of road and the scenery is hard to beat. It is advisable, however, to go and come via the Mt. Washington Hotel, instead of from Crawfords, especially after a rainfall. At the hotel a party of autoists were met who were glad to view at close range the machine they had admired "making Tug-of-War Hill." As the nut on the rear axle of the Henderson was missing a new one was obtained at the garage at a cost of ten cents, the only repair bill of any nature during the entire trip. After a pennant

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was obtained, the return to Crawfords was made over the short route, which is a rough road, but not bad. This ended the third day with a milage of 70.

More Striking Scenery.

The start on Monday morning for Glen House, via Gorham, was not made until nearly 10 o'clock. Snap-shots were obtained in front of the Mt. Washington Hotel, but the position of the sun prevented the pictures from including the hotel itself. The road to Gorham is mostly good, but not like the road traversed the preceding day. The scenery is grand and should not be missed by any Mt. Washington tourists. There are some hills, but few until well headed for Gorham. As the Ravine House is approached the scenery changes from broad valleys and distant mountains to intervales and rugged heights close at hand. The Presidential range and Mount Washington in particular, seem to be just a short walk from the road. Frequent stops should be made to get the benefit of the rapid changes in this most beautiful scenery. Aside from some trouble with foul plugs, due to the light oil, no trouble was experienced until after reaching Gorham. The Gorham hill is "some hill," but not much to be feared going towards Gorham. Coming the other way would be hard, due to the great amount of sand and loose gravel, the poor approach and long, steep elevation. Lunch, gasoline and heavy steam oil were obtained at Gorham, the latter somewhat different from the thin imitation used earlier in the day. After fuel was obtained, the Henderson was weighed and tipped the scales at 390 pounds.

The road to Glen House was reported good with only a gradual rise, but it was found to be a close second to the Dover-Rochester road, as to sand, and as hilly a stretch as had been met with so far. While stopping to watch a damaged auto, the Henderson rider lost his balance and the heavy machine fell on his ankle and badly strained it. By night the ankle had grown worse and prospects for climbing Mount Washington began to fade. On advice from a traveler a stop was made for the night at Cascade Camp, about three miles beyond Glen House. The Camp is a new one, started this year.

A Stop in a Camp.

Temporary beds were constructed in regular camp style and a more pleasant stop could hardly have been imagined. As Mason's bad ankle would prevent climbing the mountain the next day, the machines were not cleaned. On rising the next morning it was found the camp was located at the foot of the Tuckerman Trail and Cascade. A walk to the Cascade was enjoyed before breakfast; as the return to Crawfords meant a run of only 35 miles, against the 50 of the previous day, there was no hurry in starting. The road down to Glen Station, where the main highway was met, proved to be a most excellent one and largely down grade. At Glen Station the "Morris chair" saddle on the Henderson was shipped home and the regular saddle was substituted, as it gave better control of the machine in sand, and sand seemed to be plentiful when least expected.

From Glen Station to Crawfords the road was the same as traveled before through the Notch. It was hoped that Tug-of-War Hill would be easily mounted this time, but to the dismay of the Henderson rider a pair of horses were met one-third up and in such a way as to cause a stop. While Mason was trying to screw up courage for a fresh start a Chase two-cycle three-cylinder touring car came laboring up, with four people broadly smiling at the motorcyclist's predicament. Somewhat to his satisfaction, however, he heard the Chase cough its last after rounding the next curve. Giving the Chase a chance to engineer the rest of the hill the Henderson rider then took his mount to the top with colors flying.

On arriving at the Crawfords station the balance of the day was spent in cleaning up, tanking up and "talking up" New Hampshire sand spots. The following day proved to be very rainy, so no further progress was made until Thursday. Thursday morning proved fair and an early start was made. The road to Profile House was found to be good, considering the recent rain, and fair progress was being made when an unexpected soft spot precipitated the Henderson rider over the bars.

DEDGE AND HIS CUPS

TOMMY DEDGE, the National Capital M. C. speedster, appears in the accompanying photograph with three cups which have recently been added to his collection. In addition to the cups Tommy's sweater is also worthy of special mention, orange and light blue—half and half—being the rather startling colors used. The sweater was presented to Dedge by the International Acheson Graphite Co., of Niagara Falls, N. Y., makers of "Oildag." Dedge is one of the chief boosters of a plan to have a three-lap board saucer erected at Glen Echo, near Washington, by the electric railway companies in the National Capital.

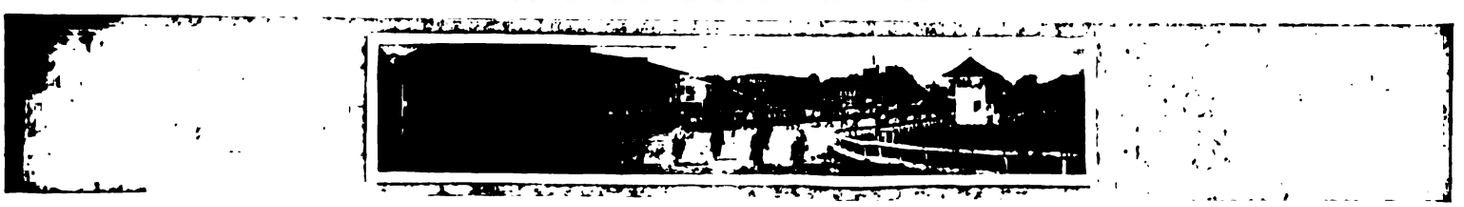
On the Trail Once More.

The main and spring forks, handlebars and rocker arms were much askew. The machine was stripped of its damaged parts and the R.-S. rider then proceeded some five miles to a blacksmith shop, accompanied by some very crooked tubing. He returned within an hour, however, and soon had the Henderson in riding trim. A stop was next made at Profile House for a pennant and a short way further on to view the Old Man of the Mountain, that wonderful piece of Nature's handiwork. After luncheon progress was continued over generally good roads, except where the State road was under construction, to Plymouth. The scenery of the Franconia Notch can best be seen in going from Plymouth toward Profile. A big mud hole just outside of Woodstock sent the Henderson rider down again. As he always was in the lead he got the surprises. This time the resulting bent spring fork was straightened with a piece of iron which happened to be near at hand.

While there is some sand and several hills before reaching Plymouth, the road is not really bad and the State road operations will soon wipe out the present bad spots. From Plymouth to the Weirs there are several long stretches of deep sand, and as it was beginning to get dark when Meredith was reached it was considered best to rest there till morning. The 75-mile run necessitated taking on more gas and oil, preparatory to the next day which was to bring the final run.

An Economical Outing.

The fuel and oil bill for the two machines was $4.25, or less than one-half cent per mile. Repairs cost only ten cents and there were no punctures. That afternoon the R.-S. was taken down to see if there was any perceptible wear. The machine, which was a 1911 model with 1912 attachments, had been used continually for the two seasons and yet not even a loose piston-ring was found. It was at once reassembled and made ready for Mr. Mason, who was to leave the following Monday for a week's trip through Rhode Island and part of Connecticut.



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IGNAZ SCHWINN

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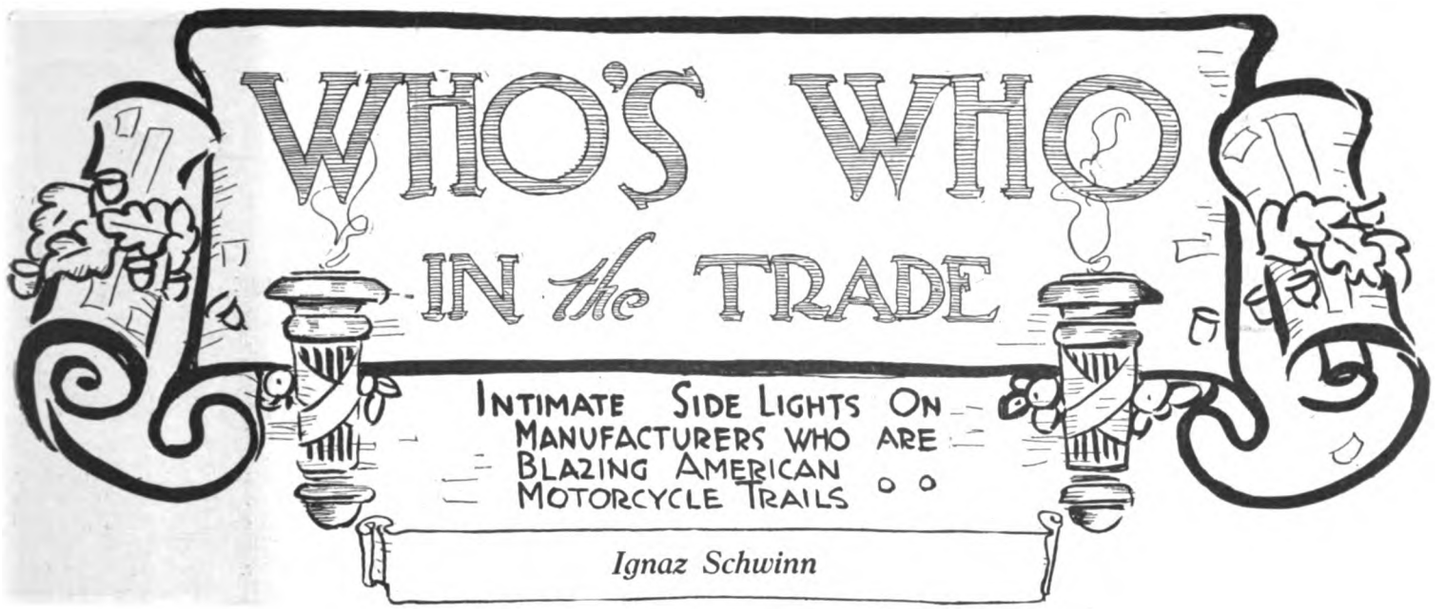

FOLKS who have known Ignaz Schwinn for years past express no surprise when informed of the remarkable energy he has brought to bear upon his operations in the motorcycle field, in the production of the Excelsior line, for energy—of the straight-from-the-shoulder, result-getting brand—has been a Schwinn characteristic since the now well-known manufacturer was little more than a toddler in Hardheim, Baden, Germany. Mr. Schwinn was born in Hardheim, and before he had reached his eleventh year he was called upon to assume unusual responsibilities, owing to the death of his father. Always a thoughtful youngster,, and little given to the frivolities of present-day youth, the boy made the most of conditions as they presented themselves, and until he was fourteen years of age practically all his time was devoted to assisting the family.

It was at this age that he entered upon what might be considered his first formal position. Formerly he had worked wherever there was a demand for his services, giving little or no thought to the character of his employment as long as it brought financial returns and allowed him an hour now and then for his books, but in his fourteenth year he felt the need of work that seemed to point to a definite end. Already he had an eye on the future, a youthful, untrained eye, naturally, but one keen for results.

ENTERING THE BICYCLE INDUSTRY.

The position referred to brought young Schwinn into the plant of the Mannheim Rubber Company, where he was employed in the mechanical department, and there he laid the foundation for the thorough schooling in the cycle industry which has since stood him in good stead. In 1878 the youth entered the bicycle manufacturing field, and he at once displayed aptitude for designing and for refining the designs of other trade workers, with the result that he soon took up steam and gas engine work in addition to his other interests. These were days calculated to bring out the Schwinn characteristic of energy at its best, for the young designer worked tirelessly in every waking hour, often far into the night, to perfect the innovations which he persisted in introducing into the manufacturing system of the factory.

Industry brought its reward, as usual, for in 1886 the young man became superintendent of a bicycle factory in Frankfurt-on-the-Main. He remained in this position until he left Germany, in the spring of 1891. It was with some reluctance that Mr. Schwinn departed from his native land, for his progress had been rapid, and veteran designers and manufacturers were already giving his work most serious attention. His friends argued that he was taking a foolish step, but the designer, eager for bigger things, could not be persuaded to alter his plans. On arriving in the United States Mr. Schwinn went to Chicago almost directly, so that the staging of his present successful operations there is not without appropriateness.

A NEW START IN AMERICA.

Hardly had Mr. Schwinn arrived in Chicago when he evolved a plan to enter upon the manufacture of bicycles. He met with considerable success and continued to produce high-grade machines until he decided to sell the factory in 1895. In the spring of that year he established a bicycle factory under the name of Arnold, Schwinn & Company, and this name still stands for bicycle quality, as the company is operating a bustling bicycle plant and finding it pretty hard to fill all its orders. Mr. Schwinn is now the sole owner of the factory, having bought up Mr. Arnold's interest several years ago. Some idea of the success that has attended Mr. Schwinn's development of this factory may be gained from the statement that for the last five or six years his aggregate output of bicycles has averaged eighty to ninety thousand machines annually.

It was a short step from the manufacture of high-grade bicycles to the motorcycle industry, and when Mr. Schwinn finally decided to turn part of his attention to the production of motor two-wheelers he was far from being unprepared for the step. His early training in Germany obtained under conditions which rendered it most practical, was of great value to him. While he had been busy in the advancement of his bicycle interests Mr. Schwinn found some time to devote to purely experimental work, and in 1897 he built an electric car for his personal use which proved quite successful. From 1897 to 1902 he manufactured twelve experimental automobiles, and several of them are still doing good work.

AN IMPORTED DE DION.

It was in 1899 that the motorcycle idea began to assume definite form in Mr. Schwinn's mind, for in that year he imported one of the old motor bicycles in which a De Dion motor furnished the power. Mr. Schwinn put the De Dion through many a curious stunt in and about Chicago in the ensuing year, and from time to time he fitted a contrivance of his own design that assisted the outfit to meet the strenuous demands he made upon it. All this time the designer was far from satisfied. He had half a dozen big ideas under consideration, and his problem was to grasp the one that would fully meet his expectations. While the other Schwinn interests were developing the Schwinn energy and the ever-present demand for action were keeping pace with them, and finally in 1911 came the inevitable. Mr. Schwinn purchased the Excelsior motorcycle plant and immediately began to apply the methods that have characterized all his business operations.

A STICKLER FOR SUPERVISION.

Mr. Schwinn's chief hobby—and a most fruitful one it has been—is personal supervision of his entire plants. He makes regular trips through the big factories, studying production problems in such detail that he is never without a suggestion or two for his subordinates. When not at his desk or exploring the factories Mr. Schwinn is pretty certain to be chugging about over some of Chicago's excellent boulevards and suburban roads in one of his automobiles. He is exceptionally fond of automobiling and makes it practically his sole means of recreation.

That he is proud of the improved Excelsior motorcycles goes without saying, and his enthusiasm over Humiston's remarkable performances on a "Big X" flier on the Pacific coast recently was scarcely less exuberant than that of the men in the factory who had actually fashioned the sturdy space annihilator. From time to time Mr. Schwinn's friends question him as to where his energy is likely to break out next, for they know it has a confirmed habit of leading him into new fields, but he appears satisfied for the time being. At any rate, he smiles and says: "I'm doing very well, thanks, but I've never yet turned my back on a good idea, so how are we going to predict what may happen?"

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TRAILING the EARLY SALE.

ANOTHER TALK WITH DEALERS

"DURING the last month I have heard more enthusiastic talk about early sales than in all my six years of previous experience in the motorcycle trade," said the Veteran Dealer, "and if I were the most confirmed pessimist in the Union I still couldn't help believing that there is something big and vital in the present display of enthusiasm. If a dealer makes up his mind that he is entitled to some early 1913 sales, he certainly is going to land them, but it's about time for the thoughtful salesman to lead himself off into a corner and consider that word "early" from every angle. If getting early action is going to help, the earlier it is the better. In other words, now is the time.

"I'm loaded to the muzzle with plans, and I trust every other agent in the country is doing just as much hard thinking as I am. A week ago, for example, I fired an application at the Motorcycle Dealers' National Information Bureau, in Indianapolis, for the series of special letters to farmers that is now being distributed, and while farmers are not so very numerous in my district I am going to get in touch with every one of them that might be at all interested in the purchase of a motorcycle. Where there is a son on the farm I figure that my work ought to be pretty easy.

WHERE THE FARMER COMES IN.

"When we are considering early sales the farmer should be given most careful attention. In the first place, he is quite likely to have money laid away, and if we can show him that we have a business proposition to offer he is not slow, as a rule, to display interest. From a purely recreation viewpoint I do not count upon interesting one farmer in fifty, but when I show him that I can solve the farm-to-town messenger and errand problem, and that I can help him to keep the boys around the old homestead, I believe I can talk business to nearly one hundred per cent. of them. I won't lose many, that's one sure thing

"In one of the recent bulletins of the Information Bureau I noticed a little story about two rival dealers in a small town which impressed me mightily," continued the Veteran, "for I think it socks the spike right on the noodle when it comes to explaining why many dealers are chronic grumblers. The dealers were Smith and Jones—or we'll say they were, at any rate—and on a certain day each received a tip from his factory that a likely prospect was running at large in that town. Then, according to the bulletin, "Jones hoped and Smith hopped." Jones hoped the prospect would be so deeply impressed with what he had heard indirectly about the —— machine that he would walk right into Jones' store and lay the purchase price on the counter. Smith, who did the hopping, trundled out his demonstrator and went after the prospect. He sold a machine, of course, and Jones is still hoping.

A QUICK-ACTION BUSINESS.

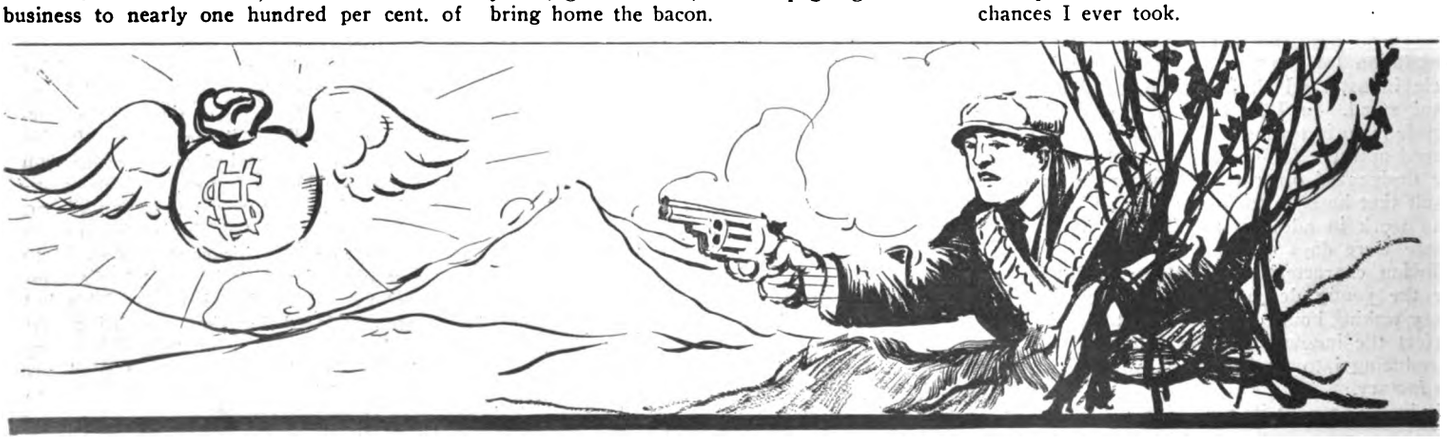
"Selling motorcycles is a quick-action business, and the sooner agents realize this the better for them. If you are an agent and you have an inquiry forwarded by the factory it is a fairly safe bet that another agent in your territory also has the prospect's name, and that every second you delay puts you in greater danger of losing the business. Here's another point. When you receive one of these promising inquiries don't sit down and write a letter full of rambling arguments in behalf of your make of machine; instead, go out and have a heart to heart talk with the prospective buyer. Letters have their uses, but they are cold and unsympathetic at best, and five minutes' conversation at close range will often bring down a sale that could not have been landed by five hours of letter writing. Don't wait, or write or sit down and hope—like Jones; go after 'em, and keep going. You'll bring home the bacon.

If you are so far away from the prospect that you can't jump on your demonstrator and buzz right around to see him, then's the time to write a letter. But don't try to sell the machine in that letter. Simply tell the prospective customer that you believe you have what he wants and that you are coming to prove your claims. Tell him when you will be there, and then go without fail. I have known one broken engagement to spoil a sale for a dealer who practically had the money in his pocket. If your first visit doesn't clinch the sale, go again.

WHERE DIPLOMACY IS VALUABLE.

"There never was a business involving sales that didn't require diplomacy," said the Veteran Dealer, as he glanced at last season's mount that is stored in his place and handed me a fat cigar, "and late last summer I proved this to my entire satisfaction. When I returned to the store after supper one evening I found a young man of my acquaintance in the place trying to convince my salesman that he should permit the visitor to try out one of our machines on a short run. The salesman 'couldn't see it.' He knew that he would be taking a chance on having the machine damaged, for the visitor had only limited experience in riding, and besides we had never been led to believe that he was interested in the make of machines we were handling.

"When I grasped the situation I did some quick thinking. I thought of all the troublesome possibilities my salesman had considered, and then some, but I told the visitor we would let him take a machine out for a short trip. Mind you, he didn't say he wanted to buy another machine, for he already had one of a rival make; he simply asked permission to try out one of our mounts. He had me guessing a bit, but I decided to take a chance, and results proved that it was one of the luckiest chances I ever took.



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STRIKING THE PSYCHOLOGICAL MOMENT.

"It developed that this young man had asked a favor of the agent from whom he had bought his machine, and that he had been refused, for what seemed good business reasons. Then he decided to put me to a test, and without parley he asked for one of my machines, although he knew that I recognized in him a patron of a rival dealer. Well, to make a short story shorter, as this fellow O. Henry used to say, I nailed this rider at the psychological moment and made a friend of him for life. He rode one of my machines about town for weeks, holding up his friends right and left and explaining the good points of the mount, until he had a stream of prospects filing into my place every evening—and a good percentage of them meant sales for me.

Diplomacy is one of the greatest little assets any business can have. Why, I knew a dealer in a town of 30,000 inhabitants who had a corner on the motorcycle business, simply because he never was known to refuse a favor. But here's the point; he saw to it that the boys didn't ask for anything except what he was prepared to grant. Sounds simple, but it's not. Still it is well worth working for, this diplomacy stuff. If you haven't any in stock, you would do well to load up today; it'll never get stale on your hands.

MAKING UP THE LIST OF PROSPECTS.

"Getting back to our chat about early sales," said the Veteran Dealer, as he began to realize that the afternoon was well under way, "it's quite important not to put in too much time running down prospects who cannot afford to buy a machine no matter how strongly they may be inclined to. It's mighty disappointing to visit a chap, demonstrate your machine for him and give up considerable time, only to find that he cannot raise any money. However, don't blame the prospect for this condition of affairs; it's up to you to make up your list carefully and to eliminate those who are obviously in no position to make an outlay for a motorcycle.

"This list has an important bearing on early sales. If it contains the names of the right kind of recruits—those who are in a receptive mood and who can afford to buy a machine—a little lively canvassing about this time ought to stir up quite a few February and March sales. From my viewpoint an early sale is worth more than one closed along in the summer. Here are just two reasons why: The sooner you get your new models on the road the more likely will they be to bring you in additional inquiries. That's one. The other is that your time isn't worth half as much now as it will be in April and May, and you can give up days to working up a prospect now where you can't afford to later in the season."

IN the photograph below are shown the most active members of the National Capital M. C. of Washington, D. C., as they appeared at the recent annual banquet.

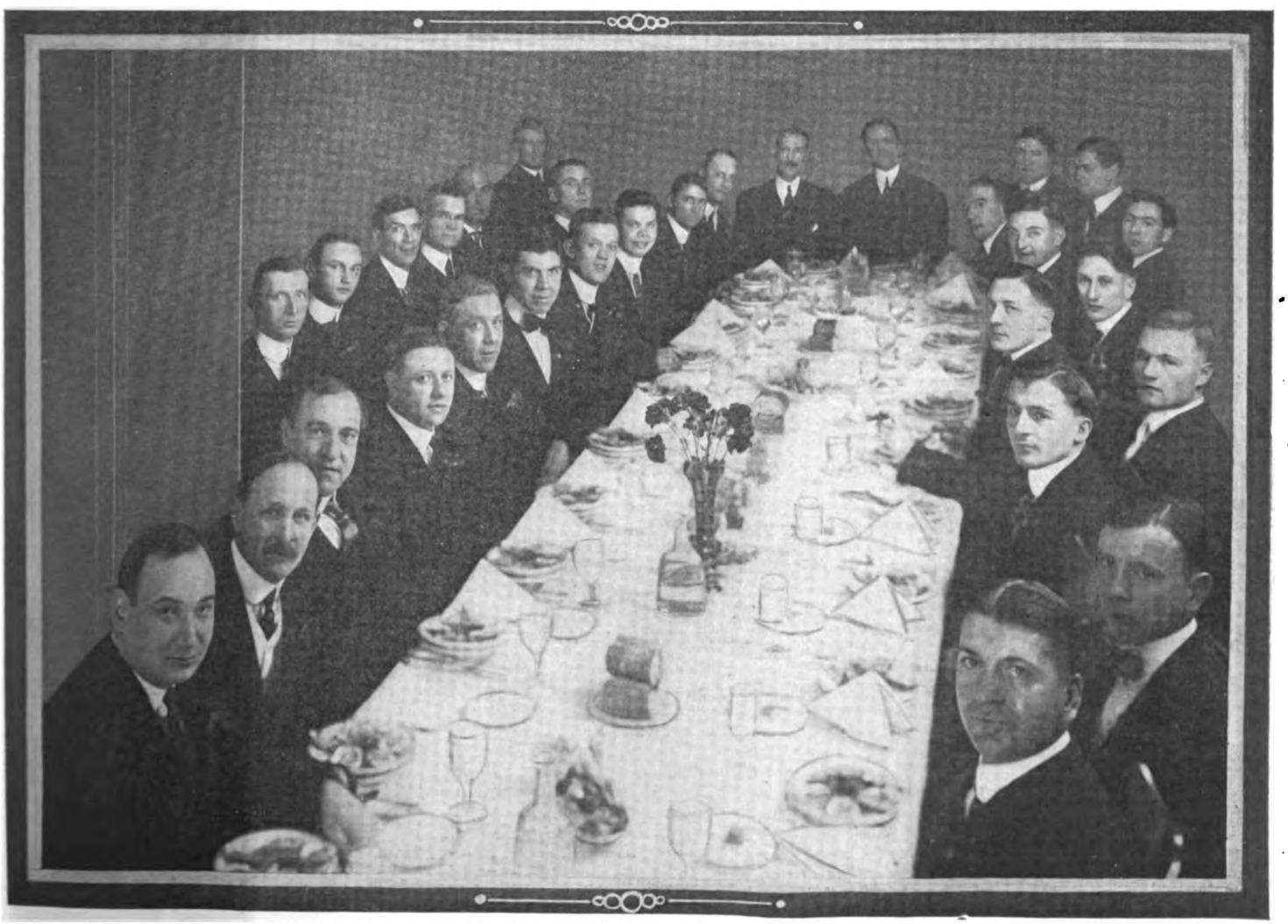
BOYD RE-ELECTED.

BALTIMORE, MD., January 18.—A well attended and enthusiastic meeting marked the annual election of the Maryland M. C., recently held at the club rooms. Frank O. Boyd was re-elected president; Frederick Shaffer is the new vice-president; William S. McCauley, secretary; William Wood, treasurer; Nelson Johnson, captain; Elmer Snyder, first lieutenant; Charles Frank, second lieutenant, and Frederick Wilkens, third lieutenant. Dr. F. Lauterbach and Roger Wilkens were appointed members of the executive committee. The Maryland Motorcycle Club now has a membership of 100. The annual banquet of the club will take place on January 30.

YORK M. C. OFFICERS.

ARRANGEMENTS have been made by the York (Pa.) M. C. to hold a series of sociability runs. Officers of the club, elected at the last meeting, are reported as follows: President, Frank H. Reiff; vice-president, Harrison D. Heindel; secretary and treasurer, Curvin L. Rinehardt; trustees, Luther Stough, Charles Kohler, Herman Smid and Charles Strathmeyer. Curvin L. Rinehardt was chosen road captain.

AT an organization meeting held in Oneida, N. Y., the Oneida Motorcycle Club was formed and the following officers were chosen: President, John E. Quackenbush; secretary, Daniel Donovan, and treasurer, R. S. Ryan.



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COMPLETE LECTURE TOUR

CHAIRMAN SAUER, of the National Committee on Legal Action, announces this week the complete schedule for his F. A. M. transcontinental educational and membership campaign. His first meeting will be held in Baltimore Thursday, February 27. Director Howard A. French, with the assistance of the Maryland Motorcycle Club and others interested in the fraternal side of the sport, have assured Mr. Sauer that arrangements are already under way for a big meeting in Baltimore. Similar assurances have been received from Washington, Los Angeles, San Francisco, Denver, Chicago, Indianapolis, Cleveland and other cities on the route.

It will be noted from the itinerary published herewith that Mr. Sauer will first travel through the South, reaching Fort Worth, Texas, Monday, March 10. Meetings will follow in Dallas, San Antonio and El Paso, Monday, March 17, being the date of the Directors' representative's arrival in Los Angeles, where he is scheduled for a two days' stay. In Los Angeles Mr. Sauer will conduct conferences and hearings Monday and Tuesday afternoons and meetings at night. A two days' stay will be made in San Francisco and, after taking in Portland, Tacoma, Seattle and Salt Lake City, Chairman Sauer will reach Denver Sunday, March 30. From Chicago, in which meetings are scheduled for Wednesday and Thursday, April 9 and 10, respectively, Mr. Sauer will go back to New York for a few days' stay, and then continue his trip through New England and the Middle West, finishing with Philadelphia and Newark, N. J., on Tuesday and Wednesday, the 29th and 30th of April, respectively.

Pamphlets descriptive of the purposes of the tour, and giving the complete itinerary, with the names of the hotels at which Mr. Sauer will stop in each city, are now being printed and will be ready early next week. Upon application to either Chairman Sauer, Secretary-Treasurer G. B. Gibson, of Westboro, Mass., or Chairman E. M. Estabrook, of the Membership Campaign, of Bangor, Me., local club or F. A. M. officials, dealers and others interested may obtain, for distribution, as many copies of this pamphlet as they may require for circularizing purposes.

In each city on his itinerary, Chairman Sauer plans to address one or more meetings at night, and confer with local officials and conduct hearings during the afternoons. Wherever he goes, his time will be entirely at the disposal of the F. A. M. and club officials and members, and the latter are urged to make all the preliminary arrangements. Mr. Sauer will deliver a 30 minutes talk on the "Motorcycle and the F. A. M." and, after his address, ask and answer questions which have a bearing on the subject.

THE ITINERARY

Baltimore	February	27th
Washington	"	28th
Richmond	March	1st
Savannah	"	3rd
Atlanta	"	4th
Birmingham	"	5th
Memphis	"	6th
Oklahoma City	"	8th
Fort Worth	"	10th
Dallas	"	11th
San Antonio	"	12th
El Paso	"	14th
Los Angeles	"	17th
"	"	18th
San Francisco	"	20th
"	"	21st
Portland	"	24th
Tacoma	"	25th
Seattle	"	26th
Salt Lake City	"	28th
Denver	"	30th
"	"	31st
Kansas City	April	1st
St. Louis	"	2nd
Omaha	"	4th
Des Moines	"	5th
Minneapolis	"	6th
St. Paul	"	7th
Milwaukee	"	8th
Chicago	"	9th
"	"	10th
New York	"	11th
"	"	12th
Hartford	"	14th
Boston	"	15th
Syracuse	"	16th
Rochester	"	17th
Buffalo	"	18th
Cleveland	"	19th
"	"	20th
Toledo	"	21st
Detroit	"	22nd
Indianapolis	"	23rd
Louisville	"	24th
Cincinnati	"	25th
Columbus	"	26th
Pittsburgh	"	27th
"	"	28th
Philadelphia	"	29th
Newark	"	30th

All dealers, club and F. A. M. officials in the cities on the schedule are urgently requested to co-operate with one another in arranging for meetings in suitable places, on the scheduled evenings in each city. It is important that Mr. Sauer should be advised regarding arrangements not later than February 27, which will be the date of his departure from New York. It is also hoped that any local trade and club jealousies may be ignored for the occasion, so that this proposition will have the harmonious co-operation of everybody interested in the healthy development of the sport and the growth of the National organization.

Two handsome silver loving cups will be awarded by the National body, as follows:

One cup to the city contributing, upon Mr. Sauer's arrival there, the largest number of paid new memberships. Every F. A. M. member attending one of these meetings is urged to bring at least one non-member, prepared to hand in his membership. A second cup will be awarded to the city in which the meeting is best attended. In measuring the attendance, the Directors will, instead of simply considering the number of those present, base their award upon the percentage the attendance bears to the F. A. M. membership in each city on the 1st of March. In other words, in a town having a F. A. M. membership of 100 and showing an attendance of 200 at the meeting, a percentage of 200 will be given. The cup will be awarded to the city having the largest percentage according to this method of computation. This gives the smallest town on the schedule an equal opportunity with the largest.

Up to February 27, Mr. Sauer may be reached at 51 Chambers street, New York, and thereafter, according to date, in the cities given on the schedule.

TWO COMMITTEES NAMED

AT the last meeting of the National Capital M. C., of Washington, a letter was read relative to the visit to be paid the club on February 26 by Chairman J. Leo Sauer, of the F. A. M. National Legal Action Committee. The club appointed the following committee to receive the Federation official and assist him in carrying out his programme in Washington: T. O. Wansleben, George W. Beale, Frank Long, H. B. Cohen, Thomas R. Dedge, Frank Hazelton, George N. Parezo and F. Ruppert.

The club has decided to hold a race meet at the Bennings track May 30. Following is the committee in charge of the plans: E. M. Dodson, Paul Draper, Fred Mills, T. O. Wansleben, H. B. Cohen, W. F. Throop, Frank Hazelton, Frank Ruppert, T. R. Dedge, J. E. Pyle, R. T. Cator and L. R. Sakers.

PINS FOR VETERANS

SECRETARY GIBSON reports having received a stock of new and attractive F. A. M. pennants. They are small and so designed that the letters F. A. M. and the Federation emblem, both in yellow, show up well on each side of the pennant on a blue background. The F. A. M. has also ordered special pennants which are to be used as club ornaments, or for any wall decorations. These will be sold at 75 cents each.

A supply of special "Veteran's" pins have been received. These are similar to the "Founder" pins offered some time ago, being made of rolled gold, and they have the word "Veteran" on a scroll between the tips of the wings of the F. A. M. emblem. Members who joined the organization during the first five years of its existence (those holding cards numbered from 238 to 2762), are eligible to wear these pins, which cost $1 each.

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NEW MICHAELSON OFFICIALS

ANNOUNCEMENT is made by the Michaelson Motor Co., of 526 Fifth street, south, Minneapolis, Minn., that Frank L. Thresher has been made vice-president of the company, and that S. F. G. Blymyer has been chosen for the office of secretary-treasurer. Both the new officials are well known in Minneapolis and have long been recognized as business men of high standing. At the Michaelson plant excellent progress is reported.

WELL WITHIN THE LIMIT

THROUGH one of those errors that are often as difficult of explanation as they are annoying, announcement was made in a table of 1913 machine specifications in the January 9 issue that the Harley-Davidson 8 h. twin, known as Model 9E, was credited with 63.34 cubic inches piston displacement, when as a matter of fact it should have been rated at 60.34 cubic inches. That nothing concerning the Harley-Davidson escapes the eye of the chap interested in motorcycles is evident from the fact that this erroneous specification was used to bar Harley-Davidson twins from a recent contest in California. The Milwaukee company is prepared to prove, of course, that its sturdy twin 8 does not go over 60.34 cubic inches, but this correction is made in order that such extreme measures need not be resorted to when another Harley-Davidson rider wants to show what he has in his mount.

MOHAWK RUBBER CO.

AKRON, Ohio, January 30.—The Mohawk Rubber Company is being organized in this city with a capital of $350,000, to take over the plant of the Stein Double Cushion Tire Company, of East Akron. The latter plant, which has a capacity of 100 tires daily, has been idle for some months, and it is proposed to place it in operation at once.

A MOTORCYCLE equipped with a special carrier is being tried out by the post office department of Detroit in the delivery of parcel post packages.

TO INCREASE CAPITAL

AKRON, Ohio.—At the annual meeting of the stockholders of the American Tire & Rubber Company, of Akron, held recently, directors were elected for the year and the stockholders authorized an increase from $200,000 to $500,000 in capitalization. Fifty thousand dollars' worth of this stock will be issued at once. The company will soon place on the market a solid rubber tire, for which patents have been applied for. Adam Duncan has been elected president; G. C. Waltz, vice-president; Frank Pfeiffer, treasurer, and F. E. Rowe, secretary and assistant treasurer.

AN AERMORE BOOSTER

HOWARD B. JONES, of Chicago, who appears in the accompanying photograph, was formerly connected with the Chicago distributors of the Excelsior, and is now manager of the motorcycle accessory department of the Aermore Manufacturing Co., 1536 Michigan Boulevard, Chicago, handlers of the Sabo motorcycle lock and the Shlosberg muffler. Mr. Jones is a college graduate and an excellent mechanic, and under his supervision the firm's motorcycle department will be revolutionized.

VISITORS AT HENDEE PLANT

A NUMBER of motorcycle enthusiasts after visiting the New York Show made a trip to the Hendee factory at Springfield, Mass., before returning to their homes. The alert photographer at the Indiana factory happened along just as the party was leaving and managed to get the accompanying picture. The layout includes: Mr. and Mrs. John Hurck, St. Louis, Mo.; Wesley T. House and Mrs. Langtry, Wheeling, W. Va.; Charles H. Kelsey, Little Falls, N. Y.; H. H. Bowen, Utica, N. Y.; Henry Schaefer, Dunkirk, N. Y.; E. F. Tracy, Cleveland, Ohio; O. L. Neal, Buffalo, N. Y.; A. G. Schmidt, Pittsburgh, Pa.; Clarence Walter, Butler, Pa.; Edward Stauber, F. L. Hunt, John Hannan, F. Dublin, W. Lovney, George Brey, Joseph Ochs and George Wagner, of Rochester, N. Y.; August Zimmerman, Baltimore, Md.; R. W. Ellingham, Springfield; E. B. Connell, Pittsburgh, Pa.; L. S. Schaefer and Earl Bates, Binghamton, N. Y., and E. T. Mills, Batavia, N. Y.

DIVIDEND DECLARED

AT the annual meeting of the Mansfield Tire & Rubber Company recently, it was reported that the net earnings for the six months during which the plant has been in operation have been 12½ per cent. A stock dividend of 10 per cent. was declared. Officers were elected as follows: Judge C. R. Grant, president; G. W. Henne, vice-president and general manager; Jesse E. Dow, secretary, and W. F. Henne, treasurer.

NEWARK ACTIVITY

WALTER GOERKE, Indian agent at Newark, N. J., reports that he has received 34 bona fide orders for 1913 models. Eight of the orders call for the De Luxe two-speed models. Judging from the general sales in Newark the twins lead the singles by about 80 per cent. Bush & McDougall, agents for the Harley-Davidson, Merkel, Henderson and Thor machines, are busy in their new quarters at 312 Halsey street and report almost daily sales. The new Henderson is coming in for marked attention. Herbert Austin, who has sold bicycles in Newark for fifteen years, has moved to the motorcycle section of the city and will handle the Reading-Standard.

BIG JANUARY INCREASE

GEORGE LYONS, formerly employed by the Miami Cycle & Manufacturing Company in the capacity of chief tester at the Middletown factory, has resigned his position with that firm to join the repair department of the American Motor Company, 2724 Michigan avenue, Chicago, distributors for Eagle and M. M. motorcycles. Manager Green of this firm reports an increase in sales of almost 50 per cent. for January.

MOTORCYCLE TIRE COMPANY

THE Motorcycle Tire Company, of New York City, has been incorporated for $10,000. The company will deal in motorcycle tires, accessories and specialties. The incorporators are Henry W. Torney, 65 Park avenue, New York; Earl E. Beyer, 454 Riverside Drive, New York, and J. E. Beyer, Rochester, Ind.

CHIEF OF POLICE KOHLER, of Cleveland, in his recent annual report recommended that the department be provided with a number of additional motorcycles.

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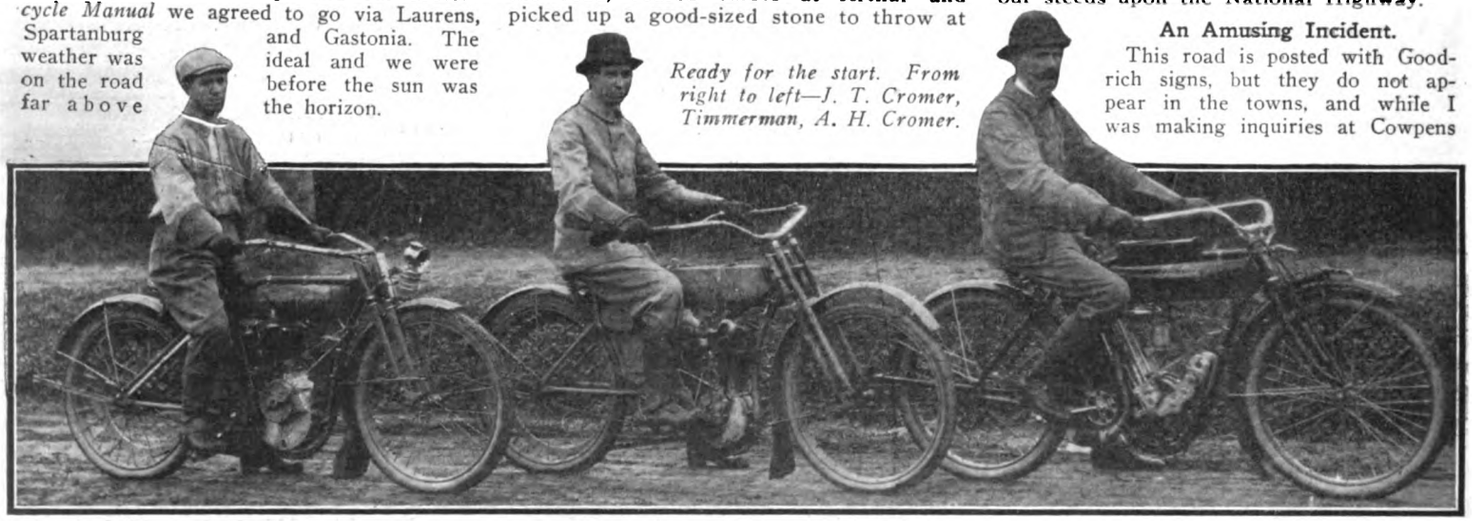
Touring the CAROLINAS

JOHN · T · CROMER

FOR some time I had been contemplating a trip by motorcycle into North Carolina, having heard a number of motorists refer to the excellent macadam roads over the line, and finally I put the proposition up to my riding partners, Arthur H. Cromer and I. T. Timmerman. As we have no macadam roads in our section of the Palmetto State, the prospect of a tour into North Carolina was very alluring, and the boys joined me enthusiastically in preparing for the outing. We decided to send our grips by express to Charlotte, N. C., in order to travel light, and on the machines we carried only such tools as we were likely to need.

Timmerman mounted an Indian 4, Arthur an Emblem and I used the same Wagner I have been riding for two seasons. After consulting our road maps and our *Motorcycle Manual* we agreed to go via Laurens, Spartanburg and Gastonia. The weather was ideal and we were on the road before the sun was far above the horizon.



Ready for the start. From right to left—J. T. Cromer, Timmerman, A. H. Cromer.

Troubles Break the Monotony.

After passing Jalapa, a little village seven miles from Newberry (our starting point) we overtook a through freight train, and for about 15 miles we had a pretty chase. Finally we managed to lose the train, and a short time later we pulled into Kinards. The roads were of hard clay, except for a few sand beds near Goldville and Clinton, and these did not bother us. We reached Laurens in good time, arriving at 7.25 a. m., having traveled a distance of 33.2 miles.

After leaving Laurens we found some pretty steep hills, and a few of them were quite rough. When we had ridden about 10 miles Arthur's machine began to puff and snort and we found the gasoline tank dry. It was a trip of 35 miles to the next town where gasoline was procurable, and we did not have enough in our tanks to carry all three over this route. Finally we learned that a gasoline engine was in use in the neighborhood and we persuaded the owner to sell enough fuel to carry Arthur to the next town. We thought now that we should have some fine going, for there was nothing to bother us but the long, steep grades. They made our 4's purr a bit, but we always managed to climb them gracefully.

An Exciting Episode.

While ascending one of these long hills we came across a full-fledged road hog, who probably held all records in his territory for being downright "ornery." Arthur was riding in front, and when he encountered the road hog in a buggy he began to figure how he was going to pass the rig. Suddenly the driver called to him to stop, but Arthur knew what it meant to stall his engine on that grade and accordingly he chugged around the rig, with only a few inches of space to ride in. This so enraged the owner of the buggy that he jumped to the road, roared curses at Arthur and picked up a good-sized stone to throw at him. In the meantime Arthur had taken a squint behind him, and he lost no time in putting his head down between the handlebars and scooting to safety.

I was next in order and when the road hog drew back to throw his rock at me I stopped. He demanded to know Arthur's name and when I refused to tell him he became so infuriated that he said he would shoot every mother's son of us if he had a pistol. Luckily he didn't have one.

Timmerman Brings the Climax.

Finally the owner of the buggy permitted me to push my machine past him, and I had begun to think that things had quieted down when Timmerman came roaring up the grade with his cut-out wide open and his machine volleying like a squad of artillery. Then there was excitement. I thought for a time we should have to lay hands upon our friend with the rock, to keep him from doing damage. As we finally pushed past him he announced that he would be waiting for us with a gun on our return trip. Needless to say, we returned by another route.

After this grade came good roads for a time. Then we struck trouble, mine coming first. The other boys passed me while I was straightening a dent in my rear pulley and when I was trying to overtake them a short time later I ran into a mudhole at 40 miles an hour and took a spectacular spill. When I had cleared the dirt from my eyes and mouth I found my machine in a nearby ditch and an examination showed that it was still ready to run. After five or six miles of good going I came within sight of Arthur, who had taken a spill and broken his clutch lever. This put his clutch out of business for the remainder of the trip. We arrived at Spartanburg about 10 o'clock. There we replenished our tanks and turned our steeds upon the National Highway.

An Amusing Incident.

This road is posted with Goodrich signs, but they do not appear in the towns, and while I was making inquiries at Cowpens my partners sped past me and took the wrong route. I set out to overtake them and when they saw me traveling after them at top speed they inferred that I was out for a race, and immediately let out their machines. Thus we traveled for several miles at top speed, and all my signals were of no avail. It was an amusing situation, but at the time it did not strike me as being very funny. Finally I stopped in disgust and sat under a tree until Arthur and Timmerman discovered their mistake and came back.

Then we took the right road and reached Gaffney about noon. Here we had dinner and a rest. From this point on to Charlotte the roads were as good as any motorist could expect, despite the hills. Arthur had a bad blow-out on one of the hills, and as the nearest town was 25 miles distant we had to make slip-shod repairs. After he had ridden a few miles the work had to be done again. We were told that when we reached Bessemer City we should strike macadam roads leading into Charlotte.

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Sixteen Miles Off the Route.

At Bessemer City, however, we took the wrong road and went 16 miles out of our way before we discovered the mistake and got back on the main route. Finally we reached Gastonia a little before sundown. Here Arthur bought a new tire, and we started with throttles wide open, as we had no lamps and it was our desire to reach Charlotte in daylight. We crossed Catawba river at the toll ferry, paying 10 cents apiece for our machines, and reached our destination as per schedule.

We sent a telegram at once notifying the folks at home of our safe arrival and then went to the express office for our grips. To our surprise they had not yet arrived, and we did not receive them until the next day at noon. Our distance traveled from Newberry was 1,744 miles.

Charlotte is a fine little city of 35,000 inhabitants. Automobiles are plentiful, but I noticed only a few motorcycles. There appears to be a fine opening for the single-tracker in this city, but dealers seem to be lacking. Our machines were stored at Osbourne's garage free of charge and we spent several days in sightseeing. At last our vacation period drew to a close and we decided to return via Greenville. I may say that our homeward trip was quite as thrilling as the outward run. Arthur's machine suffered a puncture, and then he lost his valve key; his valve guide became loosened, his righ grip control got out of order, his front fork gave trouble and his clutch began to slip.

A Mechanic to the Rescue.

Arthur consumed three hours in traveling 12 miles, but we reached Gastonia eventually and found a mechanic who took the machine in hand. When we took to the road again, with Arthur's mount in good shape, a dog ran out suddenly and before Arthur could make a move he had struck the canine and put him out of commission. The owner threatened trouble, but we kept on moving, Arthur having escaped without a spill. We retraced the road to Spartanburg and then followed the National Highway to Greenville. We found this road excellent, although it has many short bends. We reached Greenville at sundown, having traveled 119.8 miles from Charlotte.

We spent the night with relatives and set out for home the next morning via Simpsonville, Owens and Laurens. This road was the best we had traveled and we made splendid time over it. We reached Newberry in fine trim, and we agreed that for a comparatively short outing our trip was about as thrilling as could have been expected.

PLEASURE AND BUSINESS.

AFTER stowing away a turkey and chicken dinner, members of the Harrisburg (Pa.) M. C. proceeded to the clubrooms and elected officers for 1913. Edward H. Bitner is the new president; Paul Clemm, vice-president; E. Keffer, secretary, and A. E. Gettys, treasurer. James Donnelly will have charge of road events for the coming season.

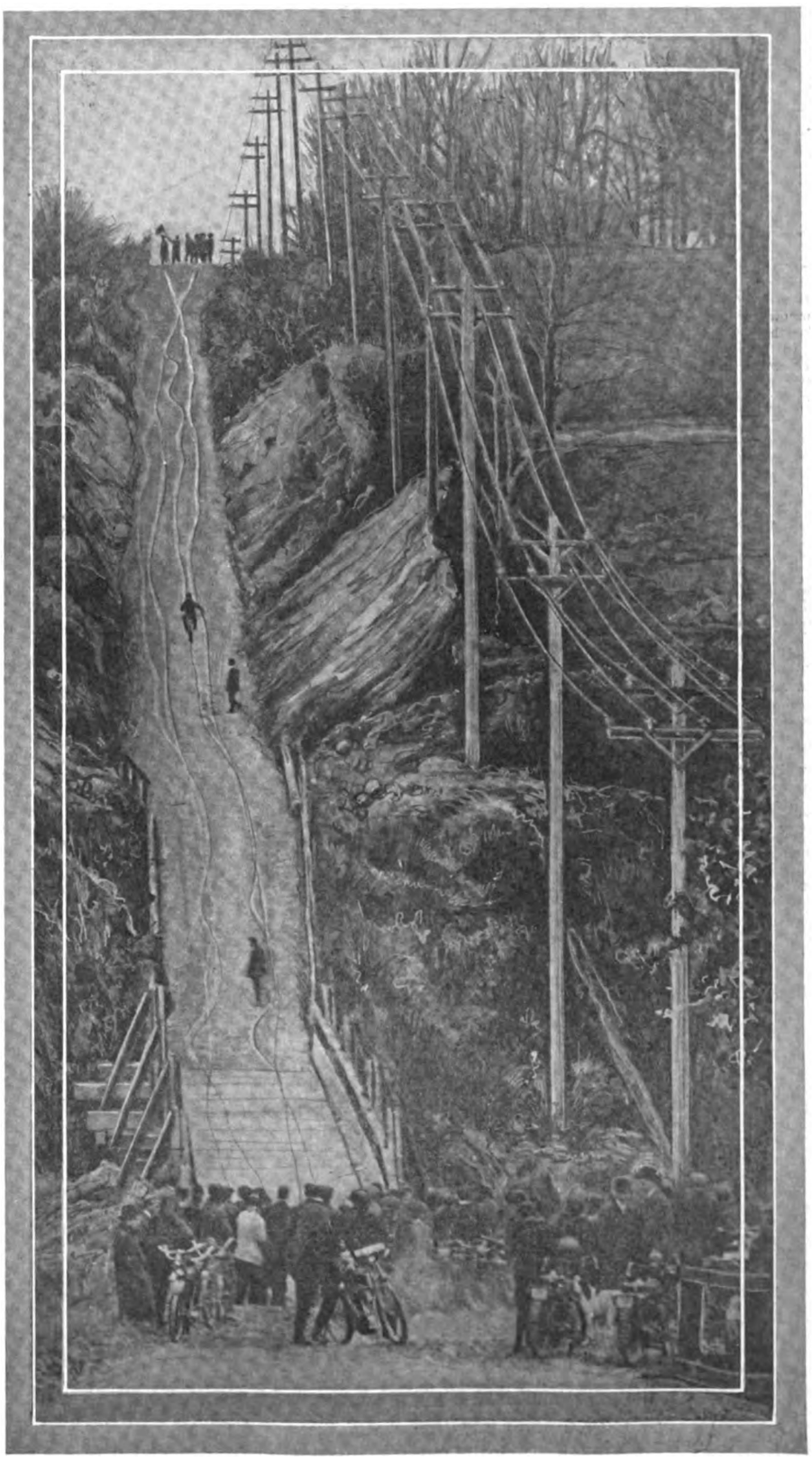
FIFTY members of the La Porte (Ind.) M. C. attended the second annual banquet held at the Plumbeck Cafe recently.

Needless to say, from the standpoint of mirth, melody (they had a song-fest, too,") and hilarity, the "spread" was highly successful.

SCENE OF RECENT SUCCESSFUL TORONTO HILL-CLIMB

BELOW is shown a remarkable photograph of the hill on which the Toronto (Ont.) M. C. recently conducted a series of successful climbing events. The hill, which is situated on the outskirts of the city, has a fairly good surface under ordinary weather conditions, but when the Toronto club conducted its program the course was not all that it might have been. The wavering tracks discernible in the photograph were made by an automobile which climbed the hill with a party of officials before the motorcyclists entered upon their contests. At the foot of the incline will be noted a wooden bridge which afforded the contestants a smooth but short start on the whirl to the top.

A flagging system was used by the officials to insure accuracy in the timing of the riders.



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TOLD AMONG FRIENDS

LOCATING CLUTCH CONTROL

EDITOR.—Of late I have noticed several references in trade journals to the increasing inclination of riders toward simplicity in control systems, and I am led to believe that the chief interest in this direction at the present time concerns the clutch. There are really but three possible locations for the clutch control—lever on the tank, pedal or similar contrivance on the footrest and a small lever or twisting grip on the handlebar. Each position has its advantages as well as its disadvantages.

The foot pedal is seen at its best only when the machine is equipped with a two-speed, and is so rarely supplied that it hardly need be considered in this letter. The main quarrel lies between the tank and handlebar locations and my preference is decidedly for the former.

In the first place, one great advantage possessed by the tank location is its positive action—the fact that the lever will stay put; that is, the rider can set it so that the clutch will slip at an even rate, giving the effect of a reduced gear, as is often necessary in traffic or deep sand or mud. In case of the handlebar location, the rider must constantly regulate the amount of slip by the pressure of his fingers or by a "twist of the wrist." This is likely to result in undue racing of the motor or in stalling at very inopportune times; furthermore, as the clutch spring is quite strong, the rider's fingers are apt to tire of their work when it is desirable to slip the clutch over a long stretch of road.

The important advantage—in fact, about the only one claimed by the handlebar advocates—is that a rider can manipulate the clutch without removing his hands from the steering gear. That is not so vital a point as it might seem; my experience has proved that little or no difficulty is found in letting go one grip to work the clutch, even when on bad roads.

A further disadvantage possessed by the handlebar attachment is the difficulty of keeping the adjustment exactly right. The wire leading from the clutch arm to the control lever is likely to break under the strain, and is sure to stretch more or less, so that the rider is without his free engine until repairs or adjustments are made. Needless to say, this trouble is impossible in case of the tank lever system.

One important point that some makers neglect is to put the gas control on the opposite side from the clutch lever. If a motorcycle is to be started from a standstill, it is necessary to work the clutch with one hand, the throttle with the other, gradually increasing the gas as the clutch is engaged. This is quite awkward if both controls are on the same side.

New Haven, Conn. GEORGE M. JOHNSON.

WHEN I MEET A CHEERY HELPFUL WORD IN MY TRAVELS I WELCOME IT, GIVE IT A COMPANION IF I CAN AND PASS IT ON" —— Carlyle.

THE TWO-BRAKE SYSTEM

EDITOR MOTORCYCLE ILLUSTRATED.—As a constant reader of your publication abroad, I must take exception to certain statements made in an article headed "An American at Olympia" in your last issue. I refer to the author's criticism of the English braking system in particular, and feel that the statements were made rather hastily.

The English two-brake regulations were promulgated as a matter of safety, to give the rider another means of braking should the first or service system become inoperative through accident or the like and hardly because of inadequacy. I cannot agree with the author that such a measure is absurd. The block brake, with the shoe or block working in or behind the belt rim is by no means insufficient; the leverage in favor of the rider is such that care must be exercised in not making too powerful a pressure on the pedal for fear of being thrown over the front wheel. These blocks are used on belt drums of from 14 to 20 inches in diameter, and anyone familiar with the fundamental laws of mechanics knows that more power can be exerted on the hub from a radius of 7 to 10 inches than from one of 2½ to 3 inches, usually found in the shell of coaster type hubs. Then the braking strain is taken by a rod in tension acting directly on the lever carrying the block, while in the coaster type the pedalling chain and sprockets operate some form of nut and screw before the braking members act on the relatively smaller shell or drum. On this score I cannot agree with the "American" that the coaster type will oust the block or the band types.

I believe that there is one very prominent American motorcycle in use in Great Britain that is perfectly contact with the two-brake system, and uses a contracting band and expanding shoes on a drum on the rear axle. I certainly do not think that they fit inadequate brakes because they are not of the coaster type. If the author had noted such high-powered mounts as the Chater-Lea and Williamson at Olympia he would have seen band brakes of ample surface operated by pedal on the same lines as the machine just mentioned. Taking the block and band types in comparison with the coaster on the scores of simplicity and "fool-proofness" I again cannot agree with the statement that the coaster type will supplant the others used at present.

As to the block brake being capable of hard service, one need only look at the braking device on railway cars and locomotives for a very practical demonstration; this type has been used almost universally since 1829.

I should be very glad to hear from the author of this article, and hope that you will publish this, as the impression he conveys is hardly a fair one.

New York, Jan. 21, 1913. SCOTCHMAN.

TWO-CYCLE MOTORS

EDITOR.—Your issue of January 9 contains a letter in which several points relative to two-cycle engine operation are discussed. Therein, the author takes exception to statements made by the contributors to Question No. 8, and forthwith undertakes to undeceive them and your readers in general in regard to this "fallacy" on their part. His position, to be brief, is this: upon the opening of the exhaust port the burned gases rush out and cause a vacuum to occur within the cylinder at this time, thereby drawing in the fresh charge. The writers of the questioned articles stated the converse to be true, i. e., the fresh charge being introduced under slight pressure assists in expelling the exhaust.

When a gas engine first opens its exhaust the gases will start out into the exhaust pipe with a rush. If the pipe is free and straight the velocity of the gases will be considerable and their momentum may tend to keep them traveling after the pressure in the cylinder is reduced to atmosphere. If so, they will produce a vacuum behind them and draw over the fresh charge. That this occurs in all two-cycle engines or in any one engine under all conditions is a preposterous statement.

To get such an effect requires a long, straight passage for the exhaust, one free from all obstructions, a condition not often found in two-cycle engines. The average engine of this type has a right angle bend in the exhaust pipe just outside of the cylinder, which, with the obstruction offered by the muffler, results in greatly reducing the velocity of the exhaust, thus practically precluding any possibility of the vacuum effect.

We have in the manograph a very effective means of investigating the pressure occurring within the cylinder of a gas engine at any particular point in its cycle. The average two-cycle manograph card shows no drop below atmosphere at the end of the expansion line, in fact the whole of the exhaust line usually lies slightly above the atmospheric line, showing conclusively that no vacuum occurs in practice at this time.

The arguments regarding four-cycling brought forth by Mr. Slater to support his contention are little less than ridiculous and have no bearing on the subject under discussion. He states that four-cycling in a two-cycle engine is the result of either one of two causes, namely a vacuum or a back pressure. In other words, he argues that either a vacuum *does* occur, or a vacuum *does not* occur, thus proving that vacuum does occur.

The statement that the incoming charge assists in expelling the exhaust is practically correct, and most emphatically not do "all two-cycle experts agree . . . that there is a vacuum in the cylinder at that moment."

La Crosse, Wis. L. J. ECKLBERG.

A PROTEST FROM CANADA

A MOTORCYCLIST of Toronto takes exception to an article recently published in an English motorcycle journal regarding the Canadian championships. He refers particularly to a report on a five-mile race for belt-driven machines, and forwards the following letter:

"In the first place this race was for belt-driven machines only, and as nearly all the American machines nowadays are either equipped with chain drive or quote its option, the riders of such machines, as a rule, prefer the chain drive, owing to its greater speed and power for racing. The time for the race referred to, which was won by a Mr. Barnes, is given at 6 minutes 25⅕ seconds, while the 4 h. private owners' stock machine race was won by Bob Scott, on an Indian, in 6 minutes 12⅗ seconds, which is better by nearly half a lap.

"Owing to the rough roads in this country the single cylinder mount is not adaptable to sidecar use, so in practically all cases the American machine used for such work is a twin-cylinder model. As the Toronto M. C. will not allow the twin-cylinder machine on the half-mile track under any condition, either with or without a sidecar attached, and as none of our American single-cylinder machines have ever been in competition in a sidecar race, this leaves the field clear to the British models, and it will readily be seen how they won 'hands down' in this particular race.

"The writer has a very comprehensive knowledge of motorcycle affairs throughout the Dominion of Canada, and he cannot recall a single instance during the past season where a British machine has won the first place in open competition. FAIRPLAY."

PUTTING TIRES TO THE TEST

EDITOR.—From time to time I see items in your pages about tire records, and would say that if any of the boys want to test out their tires they should do a little riding in Montana. Not long ago I started from Townsend, Mont., for a run of 33 miles to the State Fair at Helena. I had some good going, but finally struck six miles of sharp stones, after which my tires were practically in ribbons. My rear tire went flat and I was unable to repair it. I could have bought a new casing at a small town, but finally decided to use the old casing alone, taking out the

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tube, and thus protecting the rim a little. I walked a good deal of the way back, and had plenty of time to think over tire problems.

If any of the eastern boys are thinking of a trip through Montana, let me advise them to use the largest and heaviest tires their machines can take. Even then they can hardly get through without trouble. When I read some of the stories of bad tire luck told by eastern riders I feel that I would like to take them on a trip or two and show them some roads that really can tear casings to pieces.

A MONTANA RIDER.

TWO-SPEED GEARS

EDITOR MOTORCYCLE ILLUSTRATED.—The rapid increase in the use of sidecars and the varied utility of the motorcycle have brought a demand for a satisfactory two-speed gear and engine device that can be fitted to all machines without alteration. Many variable gears have been devised and subjected to tests, both in the United States and in Europe, but mostly without success. There is a great deal to be considered when designing and marketing such an article.

In the first place, as most machines are ridden by inexperienced owners, who have little or no knowledge of machinery, they must be designed to stand abuse. The variable gear device must be able to transmit the full power of the engine with little or no friction; it must be positive and yet give velvet action in starting. Then comes the price, which must be within reach of every rider.

Having given some of the principal lines along which a designer must work, one might say the problem is beyond solution, due to the small space into which the device must be cramped, but this is not so. I am glad to state that I am familiar with the ideal gear, which is located in the rear hub. It will hold half again more power than our largest twins generate, and weighs little more than a standard rear hub. It gives smooth and perfect action, may be started from a standstill without jolt or jar, and when the clutch is fully in, the action becomes positive.

The price is slightly more than the standard clutch equipment, and is within the reach of every motorcyclist. The gear is operated by a lever similar to that used for the clutch on most machines. By pushing this lever forward the low gear is engaged, the backward movement giving high gear. Gears are used only on low, while direct drive is obtained on high. Only one set of gears is used, and these are subject to no severe shocks or strains, thus eliminating all chances of stripping the gears.

I am an old rider of twin-cylinder machines and fully appreciate the idea of having a two-speed gear because of the many acknowledged advantages derived. Having been a constant reader of motorcycle journals, both domestic and foreign, and having seen the plea so often repeated for a reliable and low-priced two-speed gear, I have taken this opportunity to predict that 1913 will bring forth the much-talked-of product.

F. W. V.

A WORD FOR THE FORECAR

EDITOR.—In your issue of January 23 I note a photograph of an attachment for connecting a motorcycle with a forecar without taking out the front wheel of the machine, and the picture has suggested an inquiry. Why do we hear and see so little of the forecar these days? I think this form of a passenger attachment has its mechanical advantages, and I see no reason why it should not be as safe and comfortable as the sidecar. I know it has a drawback from a cooling viewpoint, as it shuts off direct air currents to the motor, but the rider who is sufficiently interested to rig up a passenger attachment should be able to overcome this trouble. The most serious objection I hear mentioned relative to the sidecar is the side strain it exerts upon the machine; the forecar eliminates this because the drive is directly behind it.

I am a rider but do not own either a forecar or sidecar. I am simply speaking from what seems to be a common sense standpoint. As I am thinking of fitting a passenger attachment for the coming season I would be glad to have some inside information on forecars from an experienced rider. I lean toward the forecar, but would not want to fit one, of course, if I would be piling up troubles that could not easily be overcome.

Brooklyn, N. Y. J. B. BRONSON.

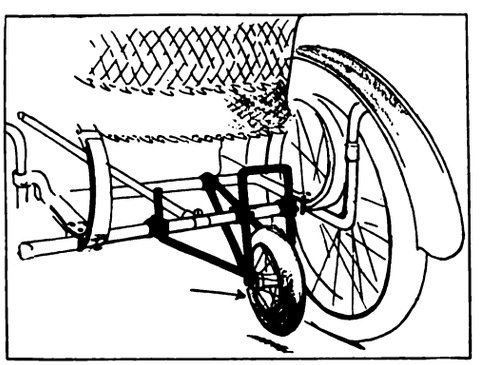
MORE UPKEEP FIGURES

EDITOR.—In several of your recent issues I have noticed items referring to upkeep records of riders, and I have finally decided that my little story may be interesting enough to justify appearance in print. I am a special delivery messenger in Chicago, and my duties necessitate the use of my Yale 4 every day when it is at all possible to ride. I have spent only $9.50 on my mount during the last year (machine was purchased in February, 1912), and I have covered about 12,000 miles. I spent $3 for batteries, $2 for tire repairs and $3.50 for ignition points and one dollar for pulley lagging. I do not claim to have established a record, but I feel that I have every reason to be satisfied with my motorcycle experience to date, and I would be interested in hearing from any motorcyclist who has kept his mechanical expense account for a year as low as I have.

Chicago. A. H. PENDL.

A SAFETY SIDECAR WHEEL

EDITOR.—I take it for granted that you have the English motorcycle journals on your desk, but fearing that you might overlook a sidecar feature which was illustrated recently in one of them I am sending you a clipping of the improved design. As you will note, the special feature is a safety wheel, placed on a strong frame in such a position that it is about six or eight inches inside the regular wheel and several inches from the road. Should the sidecar spindle give way the passenger outfit is let down



upon the safety wheel, and the driver has time to stop without an accident.

I am a sidecar user (two seasons' experience) and have not come across such an instance of breakage in an American sidecar, but it seems to me that makes of the "baskets" would inspire confidence by taking up something like this English safety wheel. My wife has covered 1,500 miles in sidecars, but she is still a bit squeamish about the stability of our outfit when we travel over 15 or 18 miles an hour. We have never had an accident, but I am thinking of fitting some sort of an extra wheel so that she may have entire confidence in our sidecar. Isn't it worth something to the trade to have our women enthusiasts feel entire confidence in the sidcars?

CAUTIOUS.

DECOMPRESSORS

DITOR.—Many American motorcyclists have read of the decompressor, that ingenious device of our British friends to assist their mounts in slow speed work and easy starting, and I believe a few suggestions looking to the adaptation of standard decompressors to our domestic machines are timely. As will be understood some change in the decompressor system is advisable as our machines are not, except very rarely, equipped with handlebar control of air and gasoline.

It is proposed that the decompressor action be obtained by engaging a "nub" or "hump" on the intake valve cam. The excess of mixture would be expelled into the intake pipe, and as a result part of each charge of gasoline mixture would visit the spray jet twice, automatically enriching what would otherwise be a "lean" mixture, due to the slow motor speed.

If, however, one of the detachable types of decompressors were used, it could be equipped with a pipe to the motor intake pipe. It is obvious that practically the same results would be obtained as in the foregoing method. When used as suggested the decompressor becomes in every way a desirable fitment. By using an advanced spark, full smooth power should be obtained, without carbureter adjustment, and gasoline bills should be reduced.

Syracuse, N. Y. HAROLD R. SHOEMAKER.

A DUPLEX FRAME

EDITOR.—The duplex frame, as shown in your issue of December 26, and suggested by Harry Townhill, of Cleveland, Ohio, is just what I have had in mind for some years, but instead of making the frame of piping, why not construct it of angle iron? Then if flat rear springs were added, instead of upper rear stays, it would, in my opinion, make an ideal frame. I would suggest having the upper frame made so that it could be removed, and would set the tank in and have it "pinched" between the four frame angle irons. At the same time I would make provision for placing a Prest-O-Lite tank on top of the gasoline tank, which, in my opinion, is the natural position for the Presto.

During the coming year we will see some great improvements in rear springing of motorcycle frames, and this is only to be expected, for we can hardly go too far with springing, as long as it does not detract from the dependability of the mount. With reference to the latter qualification I think the duplex frame has unusual advantages; long springs could be substituted for the rear stays and the whole construction would still be very sturdy.

North Tonawanda, N. Y. W. A. S.

THE POWER PROBLEM

EDITOR.—A writer in your issue of January 23 rings in a boost for the single-cylinder machine and intimates that he would not care to ride a twin. May I ask whether this brother has ever snuggled down over a husky twin on a long jaunt, and then tried to be satisfied with a single later on? A single looked good to me until I graduated into the twin class; now I wouldn't want to go back to the old mount. There is a place for the single, of course, but me for the big twin. Aside from the original cost I find that the twin is not much more expensive than a single, and as I go in for quite a bit of touring I feel that any extra outlay is worth while.

WARREN MCGILL.

Philadelphia, Pa.

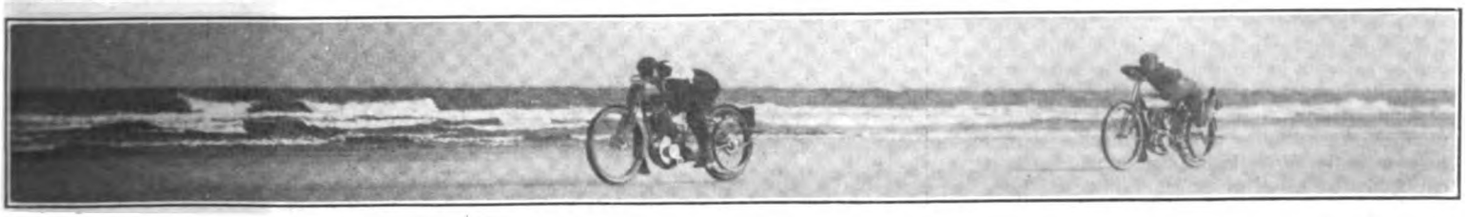
[In the article referred to, the writer stated that a single met all his requirements, but it is not likely that he depended upon it for long trips over varying roads. In extensive touring the moderate powered twin should be the choice of the practical rider. We lean to the belief, however, that many a twin is used solely for work that a single could do to perfection with proper handling.—Ed.]

TWENTY NEW MEMBERS

EDITOR.—It is not often that a club can make any headway with a membership campaign in the middle of winter, as the boys are not inclined to enthuse very much when they can't take their machines out, and it is for this reason that I feel justified in calling attention to the progress made by the Arrow M. C., of Jersey City, N. J. We have just closed a campaign that brought us twenty new members, and our club is enjoying a regular winter boom. This should encourage other clubs to follow our example, for we have proved that persistent work will bring results. Our twenty new members were taken in in two months.

GEORGE STROHSAHL, Sec'y.

Jersey City, N. J.



L. S. BROWN Winning a 10-Mile Race for 4 h. Machines on a Beach Course at St. Augustine, Fla. The Riders Are Shown at Top Speed in the Middle of the 2½-Miles Stretch, and It Is Interesting to Note That the Contestant in the Rear Is Flattened Out on His Machine in a Rather Startling Position to Reduce Wind Resistance.

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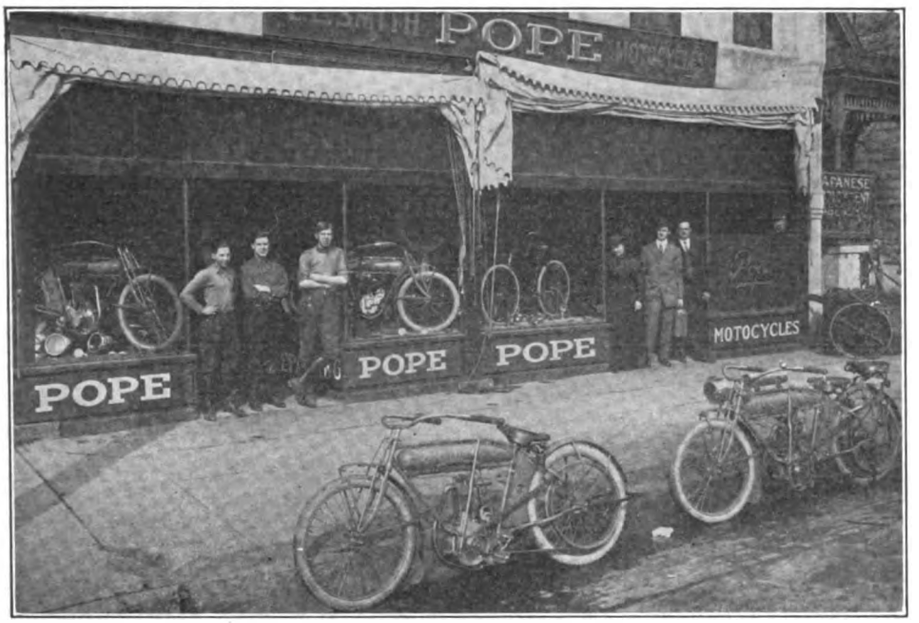

A LIVELY POPE AGENT.

ONE glance at the front of C. L. Smith's motorcycle headquarters in Los Angeles, Cal., is calculated to convince the visitor that Smith is a "live one" whose policy provides for advertising, and plenty of it. Smith distributes Pope motorcycles in southern California, and wants the fact known. Accordingly he has utilized every available foot of his store front for signs. Mr. Smith appears in the accompanying photograph at the right, with his office and shop force.

PACIFIC COAST BRANCH

A BRANCH of the Motorcycle Equipment Company, of Hammondsport, N. Y., is to be opened in Los Angeles, Cal. C. P. Rudd, who during 1912 was superintendent of the Curtiss Aeroplane Company and the Curtiss Motor Company, and for several years a designer of motorcycles, has spent considerable time inspecting various locations, and has decided upon Los Angeles as a suitable place. The new store will be located on 3664 South Main street, from which point shipments will be made to all Pacific coast States, Mexico, British Columbia, Hawaii and the Philippines. This firm deals exclusively in motorcycle supplies.

BOOSTING THE THOR.

AN interesting story is connected with the recent sale of a fleet of Thor machines to the San Francisco police department by the Thor agency in Frisco, which is handled by A. Freed. Mr. Freed also is a wholesaler and retailer of motorcycle and bicycle supplies and automobile specialties. The Frisco dealer forwards the accompanying photograph of Thor machines in use by the San Francisco police. Before he succeeded in getting the order he had to compete in a number of speed contests and hill climbs and the machines were put through various other mechanical tests. A number of the leading makes of machines were in competition in all the events which were controlled by Chief of Police White and Corporal Mahoney. Within the last few years Mr. Freed has sold two thousand Thors for public service and other commercial use.

RAYFIELD BRANCH IN NEW YORK

FINDEISEN & KROPF CO., manufacturers of the Rayfield carbureter, following their policy of giving their customers the best possible service, have established their own sales and service branch in New York City. The location is the same as that formerly occupied by the Warner Instrument Co., at 1902 Broadway. The installation of service department is at the rear with a driveway entrance facing on Sixty-second street. Competent men will be found in charge to render the best service to both old and new Rayfield users.

THANKFUL FARMERS

BY way of expressing their appreciation of having their mail delivered by a motorcycle instead of by horse and cart, the patrons of rural route No. 3, from Wichita, Kan., after a recent snowstorm arose early in the morning and cleared away the snow in order that the mail carrier might be able to make his usual trip by motorcycle.

DAYTON A HILL-CLIMB VICTOR.

FROM Seattle, Wash., comes the announcement that a Dayton motorcycle, the product of the Davis Sewing Machine Company, of Dayton, Ohio, won by seven and a half seconds over its closest competitor in a police department hill climb. The hill was six blocks long and the grade ranged from 18 to 20 per cent. The Dayton's total load was 410 pounds and its pilot was "Bud" Armstrong.

MISTAKEN IDENTITY.

IN the January 23d issue of MOTORCYCLE ILLUSTRATED, an error crept into the half-page advertisement of the Baxter Side Car Company, 119 Broadway, Cambridge, Mass. Accompanying an illustration of Model No. 3 appeared a description of Model No. 1. The sidecar illustrated, the No. 3 Model, sells for $70, not $80, $80 being the price of Model No. 1 and $75 that of Model No. 2.

SOME SHOW BUSINESS.

FOLLOWING is a list of Merkel dealers lined up during the New York Show week: A. T. Rogerson, Plainsville, O.; D. R. Moody, Birmingham, Ala.; Auto Exchange Company, Columbus, Ga.; S. E. Johnston, Douglass, Kan.; Mike Suttle, Newport News, Va.; G. H. Tompkins, Richmond, Va.; W. S. Aaron, Altoona, Pa., and F. W. Buchanan, Johnstown, Pa.

Other agencies signed up at a later date are: C. E. Wyeth, Newark, O.; Wesley T. House, Wheeling, W. Va.; Kearney Hardware Company, Kearney, Neb.; O. R. Inglis, Rumford, Me.; F. H. Drew Company, Cedar Rapids, Ia.; Anthony Cycle Company, Des Moines, Ia.; C. Jungbluth, Washington, Ia.; L. S. Chidester, Ottumwa, Ia.; J. K. Haroldson, Rembradt, Ia.; Washta Implement Company, Washta, Ia.; L. Kirkegaard, Sioux City, Ia.; and Jons Auto Company, Boone, Ia.

AN INDIAN MISSING

THE first theft of a 1913 Indian motorcycle is reported by Chester D. Clapp, 610 Summit street, Toledo, O. It is a "7" twin, engine No. 70E554, and was equipped with lamp, gas tank, speedometer, luggage carrier and cushion. A reward is offered for its recovery.

Headquarters of A. Freed, San Francisco, Agent for the Thor.

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KINKS AND KOMMENT

BY COURIER

INTERESTING Observations Anent Gasoline Grades and Coaster Brakes, inspired by a French Show Visitor—The Transmission Fever and its Symptoms—Some Figures on Lubricating Oils.

WANDERING through a motorcycle show with an engineer is one of the things that falls to my lot each January, and this year the gentleman was from just outside of Paris, and over on his vacation. Being somewhat interested in the two-wheeler, having formerly ridden in almost every road race in France, his comments would have surprised most of the readers of this magazine, and perhaps shattered a few idols as well. The features that most interested him were the automatic carbureters, free engine devices and coaster-brakes, all of which are practically unknown in Sunny France. But he was much more impressed with the "gasoline" we had here in New York and figuratively took off his hat to the carbureters that could vaporize such "heavy spirits," as he called them. When you see what we rode on during Show week, you will probably agree with me that gasoline is hardly the right name for the fuel sold.

A FEW "GASOLINES."

UP at the garage where my bus is housed, there were quite a number of growls about fuel, the riders doing the growling having to make too many carbureter adjustments per day and having the deuce of a time in starting in nearly every case. So getting a sidecar and calling on various garages I got samples of five different gasolines, as they turned out afterward. Regular gasoline has a specific gravity of 0.66 to 0.68; the best sample of the lot was 0.72, a naphtha of C grade. The fuel that gave the most trouble was a mixture of two naphthas and a strong suspicion of kerosene, and had a density of 0.785. No wonder the oil man could sell it for 16 cents a gallon. The fact that the riders could start their motors at all, spoke volumes for their carbureters, which had adjustable jet openings controlled by the movement of the throttle. Where this type is not fitted, the unfortunate rider will have to carry various sizes of jets in the future, or travel miles to get a correct grade of fuel for his lone "adjustmentless" jet. All this is really cheerful, especially as the prices of all petroleum products have gone up, and probably will continue skyward indefinitely.

CONFUSION IN GRADING.

UNFORTUNATELY, there are two methods by which fuel is graded, and as they are totally different and either may be used, there has been a lot of hard feelings on the part of riders about being deceived. The one scale is the Beaumé, and the other the specific gravity or density, both being taken by instruments called hydrometers, which are floated in the liquid and indicate the grade. You go to the oil man on one corner and hear him say he sells "56" gasoline, while the man on another corner announces "76" gasoline. The fuels are the same, and neither is true gasoline, but naphtha. However, the rider is up in the air at once; a 56 *specific gravity* fluid would be a thin one, almost a gas and used in place of laughing gas by dentists, while a 76 gravity fuel would be just the thing. When the man is asked what the grade is, he usually does not know whether the Beaumé scale or the other is meant. The oil companies generally give the Beaumé scale and the public the gravity. Hence the confusion.

THE SCALES COMPARED.

I GIVE the two scales for comparison, and suggest that the rider pastes a copy in his cap when he goes touring. He will need it pretty badly in the future when it will be cheaper to adulterate the naphthas with kerosene more and more.

Beaumé degrees.	Specific gravity.
44	0.811
45	0.807
46	0.802
47	0.798
48	0.794
49	0.789
50	0.785
51	0.781
52	0.777
53	0.773
54	0.768
55	0.764
56	0.760
57	0.757
58	0.753
59	0.749
60	0.745

Fifty-six Beaumé is 76 specific gravity, and most carbureters will take a fuel of this scale very nicely. To avoid all misunderstandings, ask what the gravity is when you next get fuel, and if the man does not know, but says it is about 57, look at the table; he is giving it in Beaumé, and the gravity is 0.757.

ON NATHAN STAFF

H. F. LEOPOLD, formerly secretary-treasurer, and one of the organizers of the Atlas Specialty Mfg. Co., of Chicago, is now connected with the Nathan Novelty Mfg. Co., of New York City, as western representative, with headquarters in room 415, at 22 Quincy street, Chicago. Mr. Leopold is widely known in the motorcycle trade, and has had plenty of experience in the fabric accessory line. He is preparing for an early business trip in the interest of the Nathan company.

COASTER BRAKE CONES.

MY French friend was also interested in the coaster brake, and was struck with the ingenuity of the braking mechanisms. His first query was did riders not frequently set up the cones too tightly? Well, as far as my experience has gone, that is exactly what lots of riders do, and then have no brake at all as far as stopping power is concerned or have one that grabs and refuses to release. The adjusting of cones is not at all difficult, and those who used to ride bicycles generally have little trouble as their push-biking experiences have given them ample familiarity with rear hub construction. When it comes to the others, it is surprising how few know how to make a proper adjustment—and how few dealers can tell the rider just what amount of setting-up should be done. The Editor informs me that special information on the coaster brake will soon be forthcoming, in articles written by the manufacturers themselves. For one, I will be rejoiced to see it, and there are dozens of other riders who will also be glad to read and learn.

TRANSMISSION FEVER.

JUST about this time of year the fever for something different in transmission seems to be most virulent, and this in spite of the satisfaction that belts and chains are giving. Commenting on a transmission of the hydraulic type put forth as being the most efficient ever constructed (they always are, on paper), one of the veterans in the motorcycle trade remarked that when the automobile people turned down some "genius'" idea, he immediately adapted it to the motorcycle or push-bike. It looks as if the veteran was right, as the patent office records will attest to anyone who wants to study up this subject. But, regarding hydraulic transmission, there have been but two successful types invented and manufactured, and dozens of purely theoretical ones which never got beyond the patent specifications, fortunately for their perpetrators. The most successful of the hydraulic types is the Manly, used on a certain make of motor truck, and its inapplicability to a motorcycle will be very apparent to the thoughtful rider who gives it consideration.

LUBRICATING OIL FIGURES.

ANOTHER query that came to my hand stated that the writer had had trouble getting suitable lubricating oil for his motor, which is of an unusual type, and what kind of an oil was used for motorcycle motors. As I do not play any one make of oil as favorite the answer can only be general, and may be of use to riders who cannot obtain standard brands while on their travels. The specific gravity should be from 0.890 to 0.895, and when the oil is heated in an open vessel it should flash at 550 degrees Fahrenheit. Most oil men of any account, when not handling motor oils, can give the above figures for any oil in their stock, and provided there is no horse-fat in the oil, one corresponding to the above figures would be adaptable to any motorcycle motor. It is best to use the oil recommended by the makers in any case, however, or one exactly similar to it.

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ENGLISH NOTES By "BRITISHER"

STARTLING design of steam motorcycle is latest find of British riders seeking new road sensations; experimental model, though somewhat crude in parts, gives results that satisfy the makers.—Speedster Bailey perfects a new racing engine which has all the British cracks on the anxious seat.

CRANKS and faddists have yelled "Why not steam?" for ten years past. The trade retorted, "You are tired of life. Who wants to squat over a small boiler with a pressure of 5,000 pounds to the square inch? Who wants to massage his thighs against redhot steam pipes? Who wants to stop every forty miles to fill up with kerosene? What's the matter with gasoline, anyway?" The cranks retorted that the flexibility of the steam engine would abolish variable gears and belt drive at one swoop, besides affording a silence and a silkiness only possible to a deaf man with a leather skin on a gasoline bike; and there the matter has stuck for several years.

However, one of our steam automobile firms, Messrs. Pearson-Cox, of Shortlands, Kent, has at last essayed the thorny task, and I had the pleasure last week of sampling one of its experimental mounts. At first sight the machine looks like a resuscitated 1902 crock. The whole diamond frame is occupied by a tank, and there is another small cylindrical tank mounted just behind the saddle. A tiny engine is clamped between the saddle pillar post and the back mudguard, and there is a square generator at the fore end of the long sideboards.

But get aboard, and you forget 1902. The small single-acting, mushroom-valved engine is a revelation of compressed power; it is a tabloid edition of a racing 500 c. c. There is an impulse every down stroke of the piston, and so smooth is the torque of the tiny engine on a single short chain drive geared 3½ to 1, that you are unconscious there is any transmission at all. It is more reminiscent of a horse than of a steel cycle with an engine fixed to it; you feel as if you were riding a metal steed with muscles inside all its tubes. You can go up any curly precipice just as you please—fast or slow—and all on the track-racing gear ratio, while down the flats you open out to racing pace and hear no roar at all behind; you just feel the wind flattening your cheeks on their bones, and sense an extra pressure in the "wuff" of the exhausted steam astern. It's simply great; and it can do seventy miles of hilly roads on its tanks, and is light to handle—only 150 pounds; when you stop at the garage, ten cents' worth of kerosene replenishes your tank—no dubbing up of half a dollar for a drain of gasoline; and the lubricant goes as far as it does with gasoline.

SOME TECHNICAL DETAILS.

SOME technical details are as follows: The burner is of the horizontal Bunsen type, burning kerosene. The model I saw had no pilot by-pass, and took ten minutes for a start from cold. The next batch have a small by-pass, and take five minutes. The plunger pump for the water is vertical, operated by a crankshaft eccentric. The generator is built up of horizontal drawn weldless steel tubes, in four units, with connections. It is tested up to 7,000 pounds pressure, but works normally at 400 pounds. The engine depends on its own pump for filling the generator, and has to be walked a yard or two to move off; no clutch is fitted at present.

The control is all carried on the bar, and is very simple. Two gauges are fitted at the front of the tank, one on each side, for kerosene and steam pressure. An ordinary brake lever operates the steam release from the left grip; a similar lever on the right grip works the water control valve. The engine (and machine) are stopped by raising the steam lever. The water flashes into steam as soon as it enters the generator piping, and passes thence through a well-lagged tube to the engine. The exhaust steam is led away forward through two tubes to its outlets near the base of the generator. This arrangement has two motives—it creates a down draught, which gets rid of the by-products from the combustion at the burner, and its temperature is kept so high that it is invisible.

The kerosene is stored in the cylindrical tank back of the saddle, and the diamond frame tank holds the water. The acceleration of the machine on a good head of steam will lick any gasoline engine ever made. The machine is not being commercially launched at present, but is being used as the basis of experiments, designed to perfect a standard model for next autumn. Blase motorcyclists in search of a new thrill are wildly interested in it.

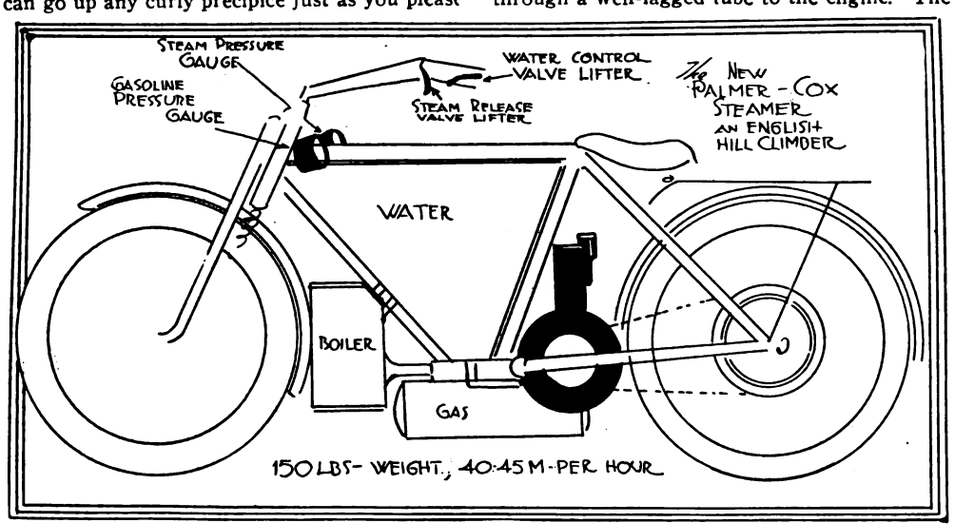

Diagram of Steam Motorcycle That Is Exciting Blase English Riders.

A REMARKABLE ENGINE.

MOTORCYCLING circles in England are waiting in breathless anxiety for the snow to melt, and Brooklands racing track to reopen for serious work. The sensation of last year's racing season was the debut of S. L. Bailey, a featherweight Australian enthusiast, who won practically everything he competed for, and set up a whole kit of new records, culminating in his 73 m. p. h. lap at Brooklands on a 350cc. Douglas twin-cylinder. Now, Bailey is not, like so many of the track boys, a mere saddle sitter, who in between times makes hit and miss experiments in ignition and carburetion and valve-timing. He is rather one of the very few speed merchants who has a sound grip on fundamental principles of mechanics, and he has got nearly 20 m. p. h. more out of the Douglas engine than any previous experimenter had obtained.

He has now compressed his experience and brains into a new engine of 494cc. on broadly Douglas lines. The weather and the repairs to the track have prevented any speed tests up to date, but it is an open secret that the bench test recorded 16 h. and a revolution limit of 5,500, even before any radical tuning had been attempted. The coterie of riders representing conventional machines are fidgeting unhappily about the flooded paddocks and clubhouse, vividly conscious that their records will go off the boards as soon as the weather clears, and the first "A. B. C." engine, in its waiting Matchless frame, snicks the electric contacts.

THE NEW ENGINE DESCRIBED.

THE engine has horizontally opposed cylinders, with a "square" bore and stroke of 68mm. x 68mm. Perfect balance has a lot to do with ultra high rates of revolution, and it is interesting to notice that the front piston is mounted on two light connecting rods, one on each side of the rear connecting rod. The gudgeon, or wristpin, is hollow, and secured in place by a light tube being threaded through it, after which the ends are flattened out. The

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cylinders are turned up from solid bar steel, and machined throughout every square milimetre of their surface. The steel is a costly type of great tensile strength, and the thin patches of the walls (between the fins) are scarcely thicker than brownpaper. The radiating fins are drilled with holes to permit air to circulate, and their diameter thins down towards the central waist of the cylinder where the fins cease altogether.

Cast iron pistons are used, and the valves are located in the cylinder head, and operated by overhead rockers, and long tappets. The valves themselves are of enormous size, measuring 1½ in. in diameter for each 68mm. bore cylinder, and they are flatfaced. Flatfaced valves have proved a failure on many experimental touring engines; their great merit for racing purposes is that they afford a tremendous opening for a very tiny lift, and so enable cam contours to be smoothened, and prevent the great resistance to engine revolutions imparted by very strong valve springs and very steep cams. The springs are of short length, and huge diameter, tapering rapidly. A large external flywheel supplements the miniature steel wheels enclosed in the crankcase.

THE LUBRICATION SYSTEM.

IT is a little surprising that forced feed oiling has not been utilized, and it may yet be adopted in track work; but the inventor's idea at present is to supply engines to the whole trade for ordinary work. Consequently, mechanically-forced oiling is not at present adopted, as so many users are careless about filtering their oil, or keeping the tank clean, and dirt is fatal to the fine hairlike passages of a forced system. There is a sump in the crank case, and dippers mounted on the cranks pick up lubricant and hurl it all over the engine. Originally the rear cylinder received a superfluity of oil, and now baffle plates protect each cylinder, the orifice in each plate being adjusted to suit the engine. In track work a compression ratio of 100 lbs. per sq. in. will be relied upon, but the touring engines will not exceed 75 lbs.

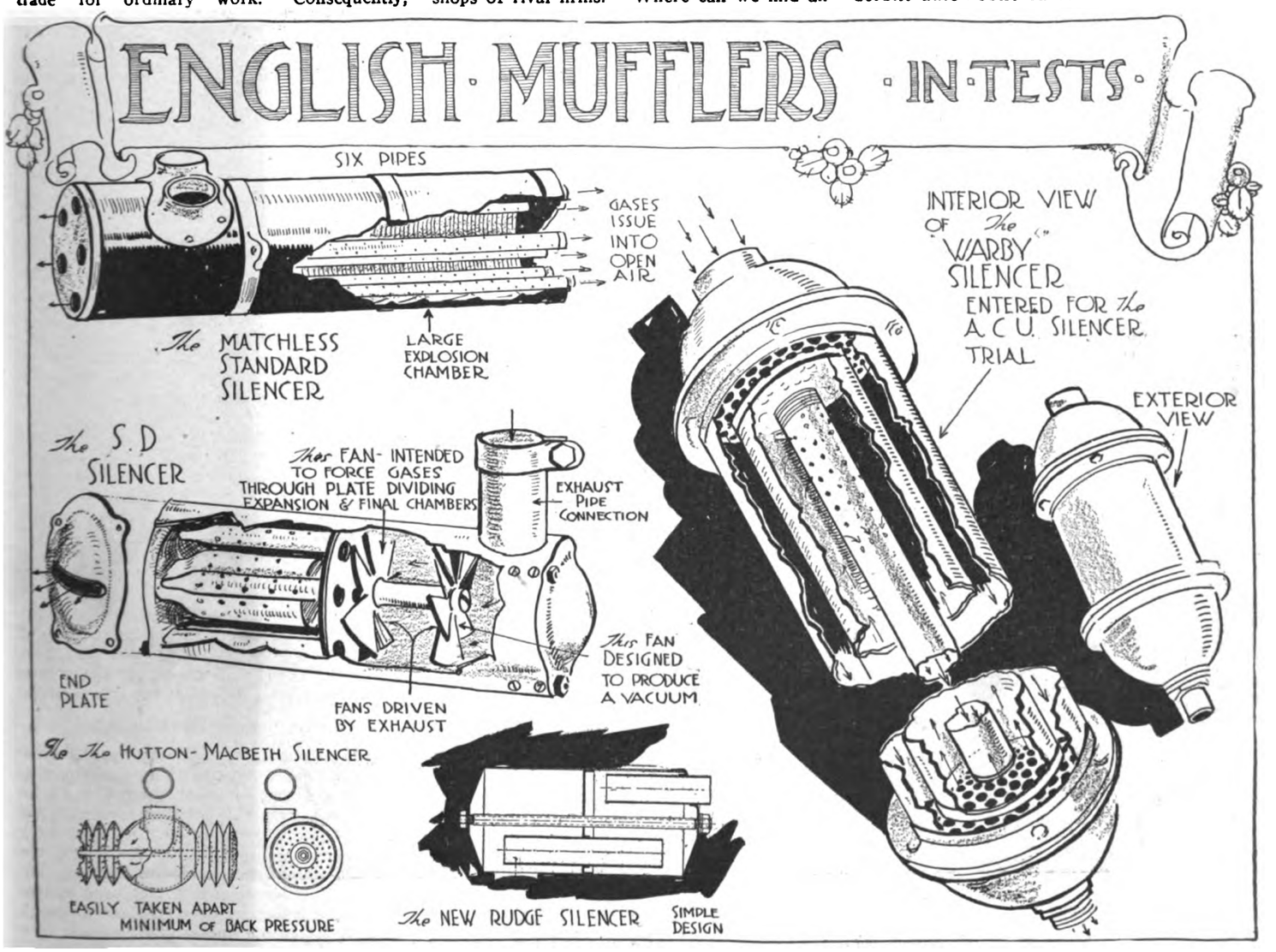
S. L. Bailey is returning to Australia to create a market for the engines, but Granville E. Bradshaw will push them in Great Britain, and he has secured the Collier team to ride for him. I never knew an engine to create so tremendous a reputation without ever being run in public competition. But my visit to the works revealed ample justification. There are not many living men who have seen any petrol engine register 5,500 revolutions early in its tests. Those who have been privileged with the sight have not seen such an engine turning out quite smoothly at its colossal speed, clipped to the bench by a few light bolts; and when we add the fact of a power curve that shows a steadily increasing efficiency, with promise of more power yet to be extracted, the marvel is complete.

An air of settled gloom pervades the testing shops of rival firms. "Where can we find an engine to beat the A. B. C. in the Tourist Trophy Races?" is the burden of their lament. I hear that several firms are hastily constructing special cylinders of B. N. D. steel to substitute for the standard crude iron castings; but I doubt whether the mere change of cylinder material and pattern will fill the bill. The colossal revolutions obtained from the earliest and latest Douglas engines have always been a puzzle to the most expert conventional designers; and now the cat is out of the bag—balance has a tremendous deal to do with it. Moreover, the resistance to the torque, produced by very heavy valve springs acting against precipitous cam contours, must diminish revolutions considerably.

Nine different grades of steel are utilized in the engine, cast iron being used for the pistons, and aluminum for the crankcase. Some of the higher grade steels employed cost 10d. per pound in the bar, not allowing for the waste in machining. The complete engine retail is sold at $220, its price being high owing to the quantity and quality of the machining it requires.

PLAN ROAD CLASSIC.

AT the last meeting of the Savannah (Ga.) M. C., the club was reorganized and plans were laid for a 200-mile road race to be held next Thanksgiving Day, in connection with the Grand Prize and Vanderbilt automobile races.



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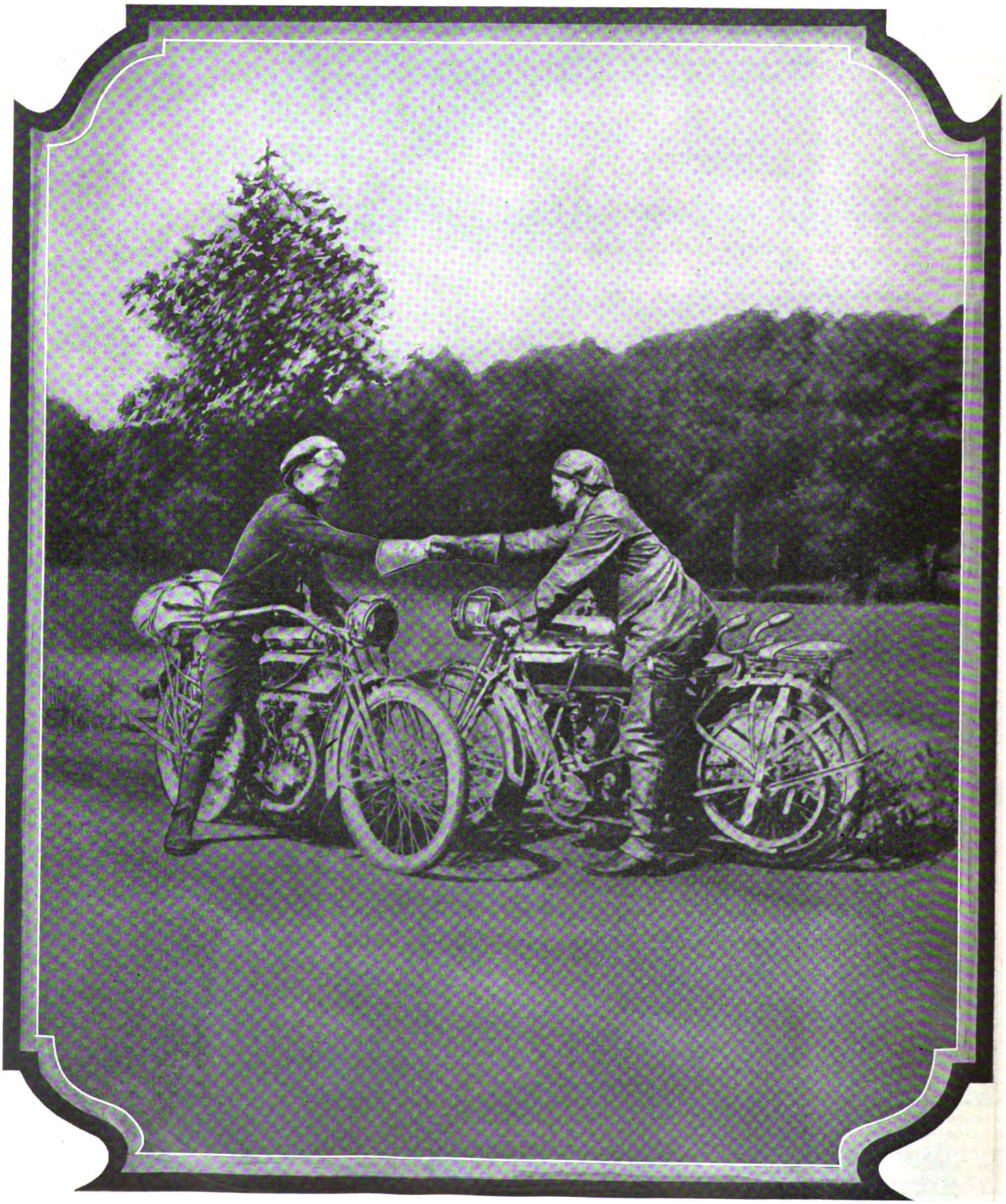

THE SPIRIT OF THE ROAD

F. W. Baum, who recently returned from a motorcycle tour of Europe, at the left.

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MOTORCYCLE ILLUSTRATED

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J. LEO SAUER, President.
H. N. CONDICT, Secretary.

EDITORIAL VIEWPOINTS

THURSDAY
FEB. 6, 1913

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Western Representative, Harry G. Jacobs, 1230 First Natl. Bank Bldg., Chicago. Tel., Central 5908.

THE CHICAGO SHOW

AS this form is put to press, the first exclusive national motorcycle exhibition ever held in the United States has just opened. Although it is not generally safe to attempt to predict the outcome of an entirely new and untried proposition, we believe that an exception will prove to have been quite in order in this particular instance. In other words, we prophesy complete success for the Chicago Motorcycle Show, because this is just what the trade and thousands of riders have been waiting for, and also because this is the psychological time at which to make the attempt. The trade situation is so much bigger than it was at this time last year as to fully justify at least one separate national show. We are satisfied that this week in Chicago will demonstrate the advisability of indefinitely continuing the new arrangement and, in all probability, of making a similar effort in New York either next year, or at the latest, in 1915.

LEGAL ACTION

LEGISLATION is pending in the State lawmaking body of New York providing for regulations disadvantageously affecting motorcycle riders. Despite the fact that the F. A. M. should promptly go to the expense of engaging a good lawyer to represent the organization in Albany, the Chairman of the Legal Action Committee hesitates to take this step, in view of his having been criticized for having twice before devoted some of the funds of the Federation to fight unfair legislation in New York, while similar action has been seldom taken in other States.

This condition of affairs is easily explained. The chairman of this Committee himself keeps advised regarding the situation in Eastern States, but must necessarily depend upon other F. A. M. officials for information regarding prospective legislation in other parts of the country. If the Chairman is promptly informed regarding the possibility of adverse legislation in far-off States, he can be depended upon to help to the best of his ability and, in a financial way, as well as the F. A. M. can afford. Action has recently been taken in Indiana and California, and the assistance of the organization will be given in any other States where help is needed. But the Legal Action Chairman cannot be expected to act except with a full knowledge of the facts, and this knowledge must be supplied from other sources, namely, State and local officials of the F. A. M.

In his coming tour of the country, the Chairman of the above named committee will endeavor to impress upon his auditors the necessity of organizing each State, so that the much desired co-operation between the States and the National Board of Directors and the National Committees may become a fact in the near future. With a goodly proportion of the States fully organized, every member will share the benefits of a vastly improved situation.

NOT long ago we came into possession of a queer little booklet, published in a Western State by a certain Bill Barlow, a keen-witted and incisive writer on topics of the day, and on the back cover the writer had frankly sung his *credo* under the heading: "Bill he believes." Bill believed in most things that are big and broad and helpful—things that you and I and the other fellow need in our philosophy of existence, and sometimes overlook—but it is Bill's idea in the abstract with which we are concerned. He had found things to believe; homely facts on which he staked his courage and confidence, and he wanted folks to know that he believed. He stepped out on the cover of his booklet and said so.

MOTORCYCLE ILLUSTRATED is today in Bill's position. Its trade creed as regards the motorcycle is clearly defined, and, like the Wyoming philosopher, it doesn't mind saying so. MOTORCYCLE ILLUSTRATED believes:

That 1913 will bring about such general appreciation of the pleasure and commercial possibilities of the motorcycle as have hitherto been little more than dreamt of by trade enthusiasts;

That the independent Chicago show marks a turning point beyond which the industry will find a broad, straightaway road, shorn of deceptive corners, and with practically no speed limits;

That manufacturers are making better motorcycles than were even thought of five years ago, and that the practical Man in the Street is having this proved to his satisfaction daily;

That the man who persisted in regarding the motorcycle as a toy, a vehicle for the capricious seeker for new speed sensations, has been silenced for all time;

That the purchase price of a motorcycle represents a better investment—either pleasure or business—than the same amount of money tied up in anything else that travels our big country on wheels today;

That before 1913 has petered out the motorcycle will have an astounding share of the country's light delivery business, including parcels post and other government service;

That the sidecar is an invaluable aid in the popularizing of motorcycle travel, and that as regards this adjunct to the motor two-wheeler we have merely scratched the surface of public interest;

That the professional man, the conservative, takes an honest pride in his motorcycle outfit today, instead of looking upon it as a temporary substitute for a motor car;

That accessory and supply manufacturers are doing more for American riders than has been done at the same stage of the motorcycle's development in any other country;

That the spirit of motorcycle fellowship is abroad in the land, and that both the motorcycle and the land are better for it;

That an industry which draws its consumers from every field of endeavor and warrants the expenditure of hundreds of thousands of dollars in factories is big enough to call for our best efforts—and to reward them;

That no one who visits the Chicago Show will question a single item in our creed;

That we'd stick to it anyway, regardless of questions.

HERE'S modesty for you.

"Considering that the show represents our first formal effort to conduct an independent motorcycle exhibition of national scope," said President A. B. Coffman, of the M. M. A., "we feel that it has been quite a successful ice-breaker."

If a show that brings the dealers from all parts of the country out in hundreds, and the riders in thousands, and that exerts a direct influence for the advancement of the trade from coast to coast, is merely an ice-breaker, we are of the opinion that even ambitious Chicago would not care to accommodate an exhibition that the modest A. B. would admit was a rip-snorter.

ONE of the most satisfying indications that the motorcycle is permanently intrenched in public favor is the attitude of increasing friendliness assumed by automobile organizations throughout the country. This is at it should be. The American motorcycle has blazed its own trails, literally and in a business way, and broad-gauge consideration of its achievements by the motor car folks is simply one of the rewards of industry. There always is recognition for the worker who makes good.

I. M. C. ELECTION

AT the January meeting of the Independant Motorcycle Association, of St. Louis, Mo., officers for the new season were elected. Tim Bahnsen was elected president; C. B. Cornwell, vice-president; C. G. Van Horn, treasurer, and R. E. Winkler, secretary. William Hellman, A. Voight and F. Winter are members of the board of directors.

H. S. McCRILLIS, of 219 Newbury street, Lawrence, Mass., has been appointed local F. A. M. commissioner.

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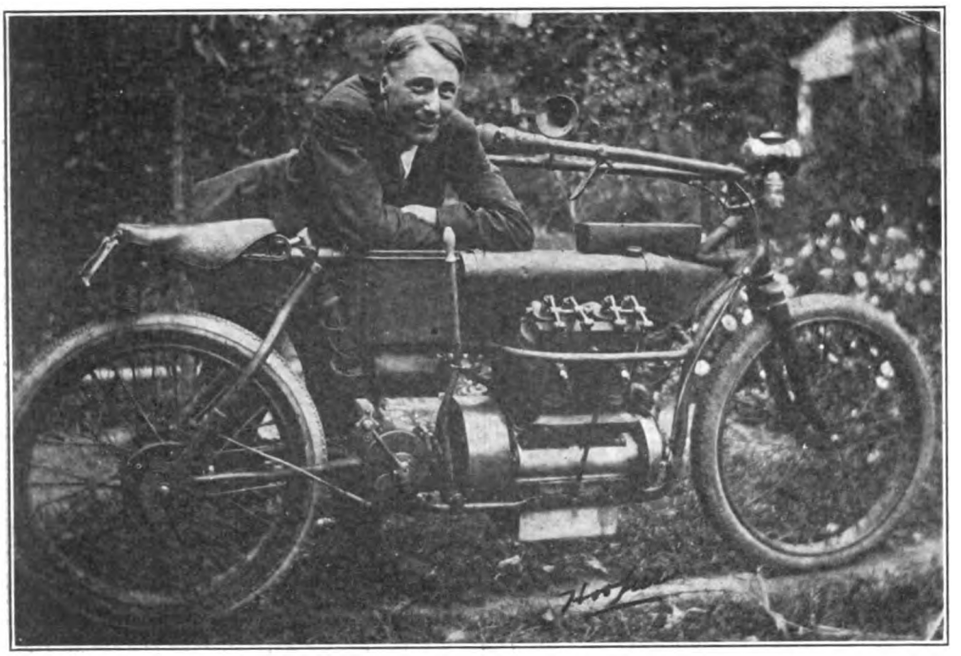

A CAPABLE MOTOR

ONE of the most interesting motorcycle power plants that has come to light of late figures in the two accompanying photographs, forwarded from Trenton, N. J., by John Hooper. The picture at the left shows the motor in the service for which it was built, while in the photograph below it has become the power generator in a full-fledged, although somewhat rakish, cyclecar. The motor was built by the late John Colgan, a well-known Trenton motorcyclist. He sold the machine to Ralph Swartz, who appears in the picture with the motorcycle, and Swartz finally rigged up the cyclecar, which is capable of turning off 35 to 40 miles an hour on the road.

GOTHAM SPORTING GOODS CO.'S NEW CATALOG IN PREPARATION.

A VERY attractive and comprehensive catalog. Their extensive line of motorcycle accessories is fully described and priced, and the recipient of this catalog will be fully repaid for sending a postal for it. Besides featuring descriptions and prices of all their goods, this catalog will contain some very valuable information together with drawings.

READY FOR BALTIMORE SHOW

BALTIMORE, Md.—All the local dealers are making preparations for the motorcycle exhibition in connection with the automobile show to be held here in the Fifth Regiment Armory from February 18 to 22. Last year the exhibits were placed at different points in the big armory, but this year they will be grouped together, which will tend to make their showing more effective. The exhibitors and their machines follow: Howard A. French & Co., Indian; Heinz Motor Company, Harley-Davidson; Randall Manufacturing Company, Reading-Standard and Pope; F. W. Sandruck, Excelsior and Merkle; Little Joe Wiesenfeld, Thor; Holofcener Gas & Electric Company, Yale.

BALTIMORE BANQUET

BALTIMORE, Md.—Over 50 members of the Maryland M. C. attended the annual banquet held January 30 at the Hotel Junker. Howard A. French gave a talk on the motorcycle and its relation to pleasure seeking. He drew a comparison between it and the automobile and showed that the two-wheeler is the true friend of the man of small means. President Frank Boyd made an address on the commercial value of the motorcycle, and Treasurer William Wood also had a few words to say.

Captain Nelson Johnson was presented with the diamond studded medal which he won by attending the most runs during 1912. The medal was donated by Howard French.

FRENCH A PIONEER

BALTIMORE, Md.—Howard A. French, the local Indian agent, returned from New York greatly pleased with the motorcycle exhibit. He also came back in a reminiscent mood, and recalled with pleasure that he was one of the first persons in this country to become interested in motorcycles. Shortly after Henri Fournier, of France, made such a sensation on the tracks, French imported one of the famous De Dion motors and mounted it on a home-made frame.

NEW 1913 motorcycles are being placed in the police department of Montgomery, Ala., to replace the old models.

CHESAPEAKE ACTIVITY

BALTIMORE, Md.—At the annual meeting of the Chesapeake M. C. a few days ago the members decided to go over to Washington on March 4 on their machines to attend the inauguration of President-elect Wilson. Only a blizzard will keep them from carrying out their plans.

Officers for this year were elected as follows: Herbert F. Vetter, president; A. W. Rupp, vice-president; George W. Coggins, secretary-treasurer; John L. Strube, captain; William L. Allers, first lieutenant; Samuel C. Brown, second lieutenant; Chester Sherman, third lieutenant; Herbert F. Shawker, color bearer.

The three prizes offered last year were awarded to the winners, as follows: George W. Coggins, silver loving cup for attending the most meetings, and a gold medal for attending the most called runs; Fred Kuhl, $5 in gold for getting the most new members. Enlargement of the clubhouse by the addition of another story was also decided upon. No called runs will be held until after March 1.

MOTORCYCLES were exhibited in connection with the annual Pure Food Show at Tacoma, Wash., in January.

A NOVEL SYSTEM

A WIRE chief of Salina, Kan., who has many calls to repair country telephone systems, not only uses a motorcycle to carry him quickly to the point of trouble, but he is saved the inconvenience of carrying an entire telephone equipment. He merely takes a receiver and a coil of twisted pair wire. The motorcycle is of the magneto type, so in order to test the wire he has simply to open the line and connect the line wires to the motorcycle by means of the pair wires. To call central he pedals a few times and connects the receiver to the wire.

REFREE PITMAN'S DONATION

ONE of the recent acquisitions of the F. A. M. Touring Bureau is a copy of "Ten Thousand Miles on a Bicycle," donated by Referee Will R. Pitman, known to motorcyclists the country over as "Happy Days." While the volume in question is written exclusively from the viewpoint of the bicyclist it embodies much road and general touring information that is of value to the motorcycle traveler. Referee Pitman has also presented several maps to the Bureau and has interested himself in the development along other practical lines.

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BILL FOR OHIO ROAD IMPROVEMENTS

COLUMBUS, Ohio, January 30.—In his first annual message to the State Legislature, Governor Cox, of Ohio, recommended the improvement of the Old National Road from end to end. He urges the codification of the road laws to do away with conflicts and ambiguity, and also favors the enactment of a law requiring the use of split log drags on all roads. It is his idea that the state should maintain and repair all inter-county highways and he has endorsed a proposition appropriating $1,760,000 to begin constructing the inter-county road system, and a direct levy in 1914 of one-half mill, which will raise from $3,000,000 to $3,500,000 annually. A bill is also before the House of Representatives which provides for a special levy of three-quarters of a mill. The bill provides that 75 per cent. of the funds raised by the special levies be used in conjunction with the State highway department in the improvement and repair of the roads, while the remaining 25 per cent. shall be used for the construction and repair of the main market roads of the State. The bill also provides for the use of convict labor in both the construction and repair of roads.

Measure Now Before Buckeye State Legislature Provides For Special Tax Levy to Finance Extensive Highway Construction and Repairs

THE Columbus Motorcycle Club has united in the movement to have road signs erected on all of the highways in central Ohio. A law has been discovered which gives ten freeholders in any township, power to petition the township trustees to erect sign boards and in case the latter should refuse to erect the signs, the freeholders can erect them, collecting the cost, not to exceed five dollars, from the township.

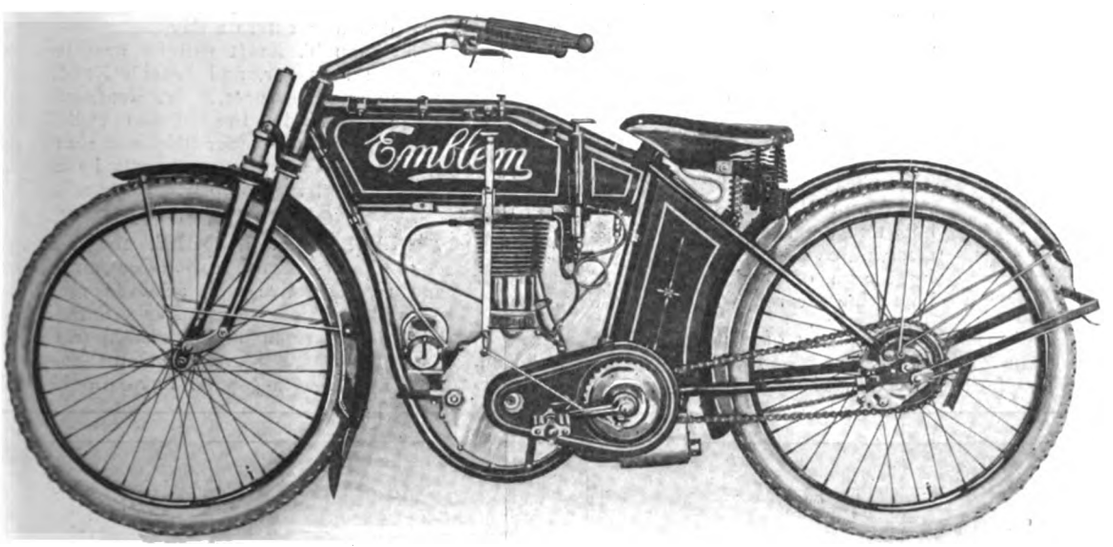
THE Barr Motorcycle Company, of East Gay street, reports the sale of a twin Indian to George V. Ward, a contractor and builder, who is said to be the oldest rider of a motorcycle in central Ohio. Mr. Ward is 73 years of age and uses the machine to oversee the various contracts he handles.

A BILL has been prepared by members of the Ohio General Assembly to compel motorcyclists to take out a state registration and pay a fee of three dollars a year. Under the present law motorcyclists are regulated by the municipal authorities.

THE Columbus Automobile Club will soon present a measure to the Ohio General Assembly providing that all motorcyclists, motorists, motormen of interurban street cars using glaring headlights must drop screens over their lights while passing traffic in an opposite direction. It is claimed that many accidents on the public highways are caused by blinding headlights.

OPEN NEW QUARTERS

INCIDENTAL to the opening of the new rooms of the East Side M. C., of St. Louis, Mo., which are located on the Lindell boulevard, one of St. Louis' finest driveways, the election of officers for the new season was held. The staff is composed of the following: F. Greenfield, president; H. Collins, vice-president; G. Schmidt, treasurer; John Kalhorn, recording secretary; G. Kalhorn, captain, and L. Read, lieutenant. Arrangements are under way for the annual masquerade and reception.

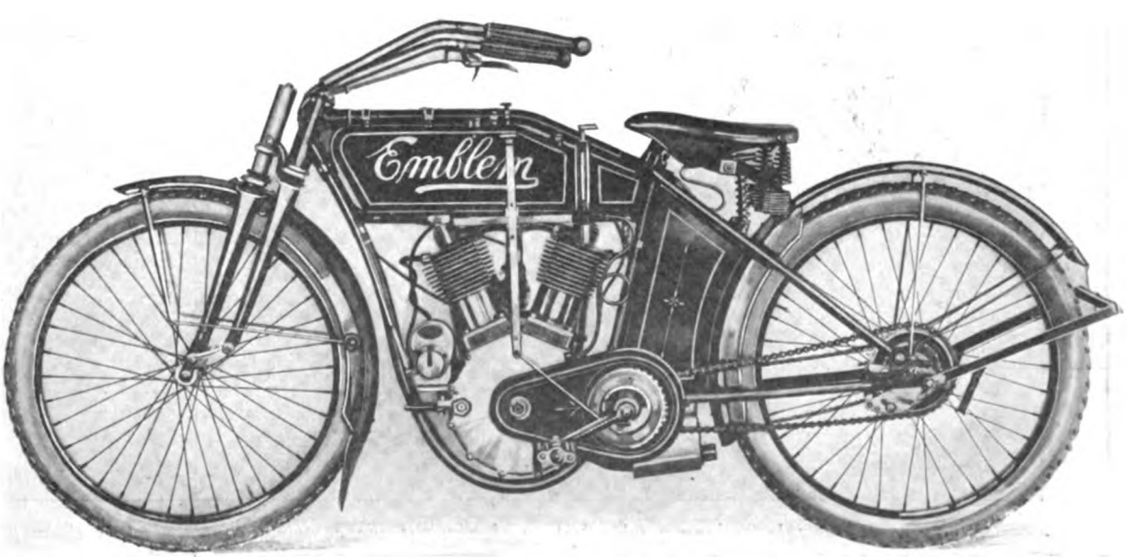


SCHENECTADY M. C. FORMED

MOTORCYCLISTS of Schenectady, N. Y., at an enthusiastic meeting recently held, formed the Schenectady M. C. Officers of the new club are: President, Walter Lewis; vice-president, David Laveny; secretary, Samuel Congress; treasurer, W. Fry; captain, John Rogers; first lieutenant, F. J. Veeder, and second lieutenant, A. M. Reynolds. L. F. Burke and J. A. McQueen were appointed directors at large.

1913 EMBLEMS

ABOVE is shown the 1913 Emblem single type, rated at 5 h., and at the right appears one of the sturdy twin models, for which the Angola company is finding a remarkable demand. Special attention is being given this year to the fitting of the tandem which is shown on the twin, in view of the fact that it is in wide demand and because the Emblem 8 and 10 h. machines are admirably suited to carry the extra passenger. One of the marked changes in the 1913 Emblem is in the top tube, which has the bend closer to the head than in previous types, thus affording the much-sought for low saddle position and racy lines. These machines were described previously.



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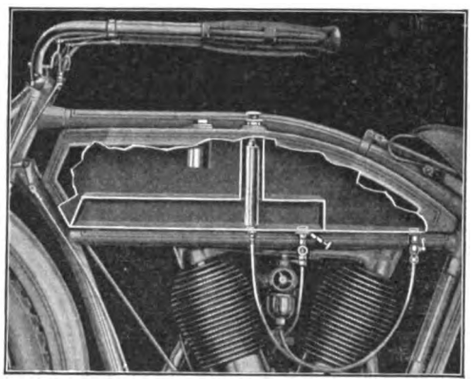
IMPROVEMENTS IN EAGLE TWIN

A NUMBER of marked improvements over previous construction feature the Eagle twin for 1913, as produced by the American Motor Company, of Brockton, Mass. Probably the most distinctive revision in design concerns the control system which is complete in the grips. The makers state that the new twin is the only machine in existence controlled entirely through the handlebar grips. The left grip engages and disengages the clutch with the first part of its movement, and beyond the point where the clutch becomes engaged the continued movement of the grip advances the spark. The right grip opens and shuts the throttle with the first part of its movement, and when the throttle is entirely closed a further movement of the grip raises the exhaust valves and relieves the compression. It is obvious that with this control system the rider will not be called upon to remove his hands from the bars while riding.

Another feature worthy of note is the constant-level saddle post. As the name implies, it keeps the rider on a constant level, regardless of whether the machine dips into road hollows or climbs over bumps. It is credited with eliminating all ordinary jars.

For the Eagle tank heavy sheet iron is used, providing for exceptional strength and longevity. The oil is contained in a compartment in the lower part of the gas tank, which is provided with an adjustable, sight-feed fitting and hand force pump. The forward part of the gas tank, in front of the oil compartment, acts as an extra gasoline reservoir for emergency service.

The improved Eagle fork carries all four tubes converging from the crown to the handlebars, which are joined at the head with steel fittings at two points. The side plates are heavy drop forgings. The four bearings are wide and provided with oil cups for constant lubrication. The fork springs are six in number, made from chrome vanadium steel. Attention is also being called to the automatic stand, which snaps up into the latch as soon as the rider pushes his machine ahead far enough to release it.



Tank construction showing separate oil and gasoline compartments and method of feeding.

PLAN TO IMPROVE ROADS

A TRIO of motorcyclists on Eagle machines, including R. A. Gaertner, agent for the Eagle, recently made a trip from Portland, Ore., to Salem, Wash. This trip and other runs within a radius of 100 miles from Portland, afford a wonderful variety of scenery. The roads, in the State of Oregon are sometimes little more than trails, but the scenery offsets these disadvantages. The same conditions prevail in Washington and the motorcyclists of this State are eagerly awaiting news from Olympia as to whether certain road bills that are before the House at its present session, have passed. It is expected that a large sum of money will be expended for improving the roads throughout the State.

IN the issue of January 23, the address of the Morse-Beauregard Company, manufacturers of the M-B motorcycle, was incorrectly given as Chicago. The firm is located in Detroit.

JOHNSON MAKES A CHANGE

W. A. JOHNSON, for the last eleven years identified with the Pierce Cycle Company, of Buffalo, N. Y., has just closed an agreement by which he becomes a member of the B. F. Goodrich Company's staff, at Akron, Ohio. Mr. Johnson will make an exhaustive study of expert tire manufacturing at the big Akron factory, and will later assume an important position on the Goodrich company's sales firing line. As yet the Pierce company has not appointed a sales manager to succeed Mr. Johnson.

It is announced that the reorganization plans of the Pierce company are now complete, and that the business is controlled by Percy P. Pierce. All departments of the Buffalo factory are being operated, and orders of 1913 motorcycles and bicycles are being shipped regularly. It is stated that orders now on hand will keep the factory busy until well along in May.

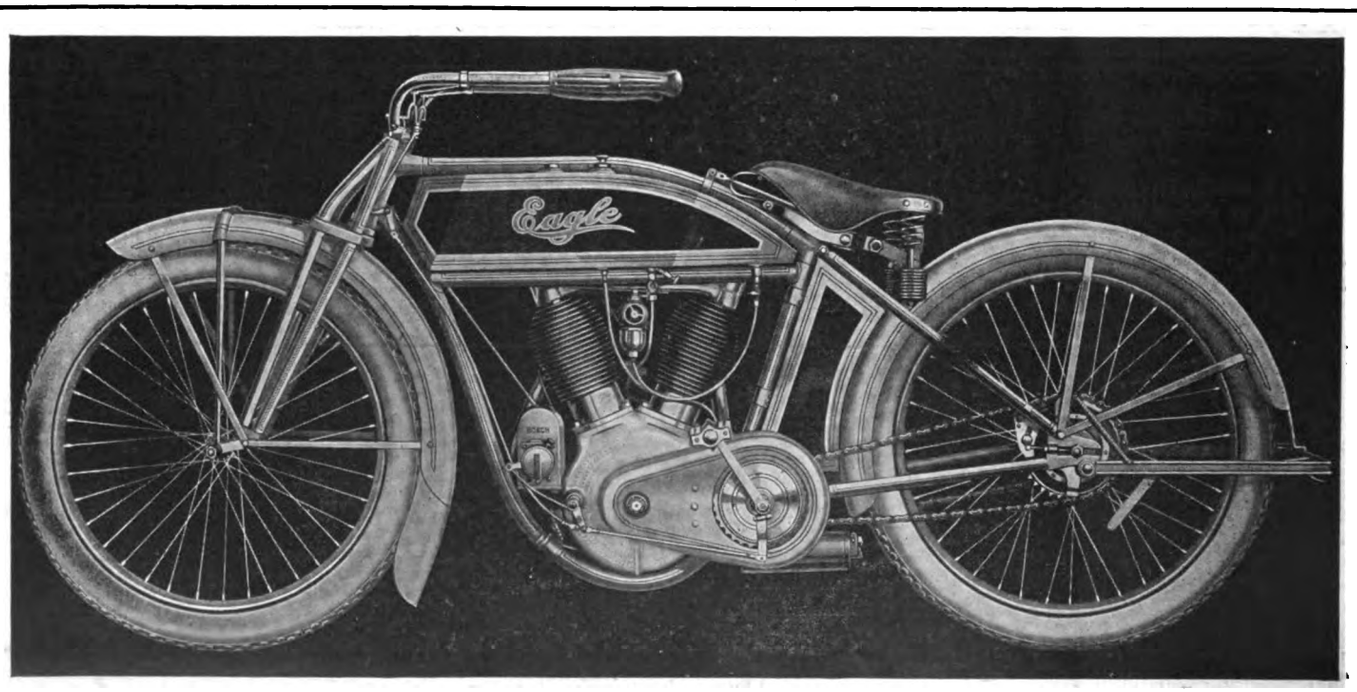
KRAFT CHANGES

THE Kraft Knitting Company, of Akron, Ohio, has recently incorporated for $10,000, to manufacture sweaters for all purposes. It will go into larger quarters very soon, where it will multiply the output by six, thus making an average of twenty-five dozen sweaters a day.

Herman T. Kraft will be president and general manager, and Joseph Zundel, secretary and treasurer. Mr. Kraft will continue to handle the Abesto Pull-E-Tape business alone, under the name of Kraft Appliance Company, and will be able to ship all orders promptly.

ON EASTERN TRIP

CHARLES F. BROOKS, the Twentieth Century Manufacturing Company's traveling representative who achieved remarkable success on his recent business tour, is now about to start on a long eastern trip in the interest of the well-known lamp manufacturers. Mr. Brooks is a popular figure in the trade.



New Eagle Twin, a notable feature of which is the complete control system through the grips.

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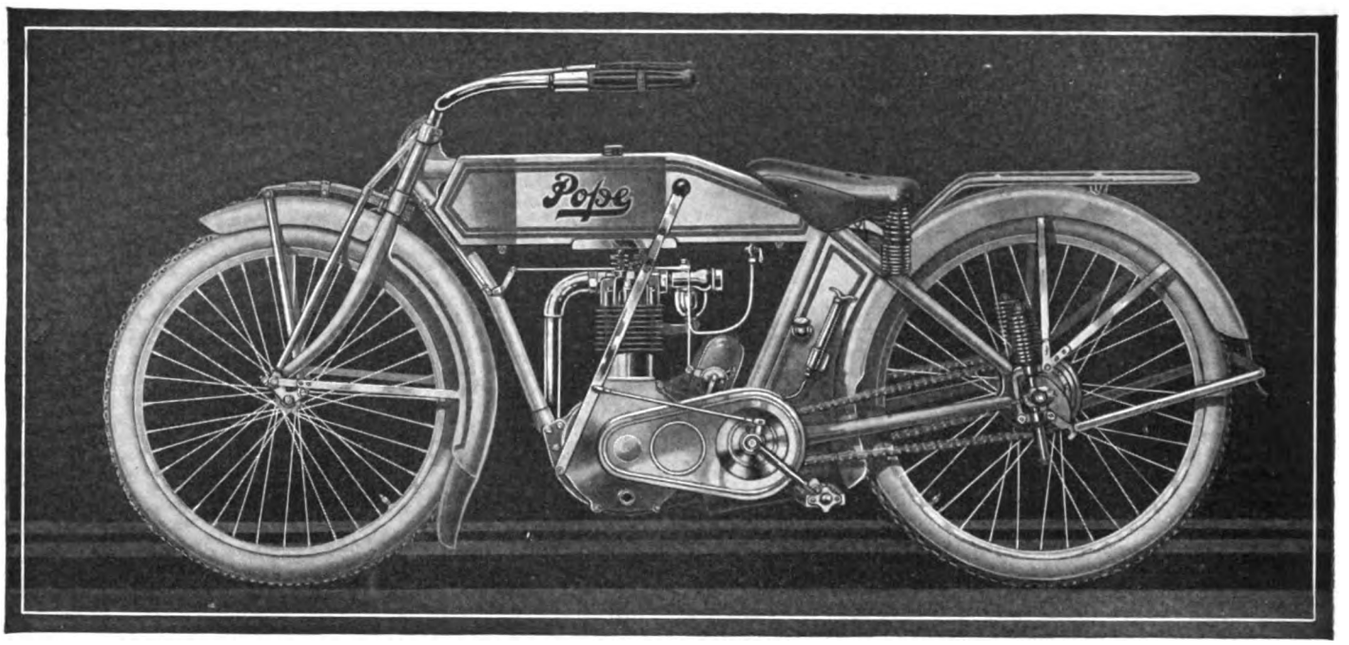
POPE LINE TAKES A BIG LEAD FOR 1913



56½ inch Wheelbase—28 inch Wheels fitted with 2½ inch Tires.

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OVERHEAD VALVE MOTOR—MORE POWER—Parts More Accessible—Valve Mechanism Simpler and Interchangeable.

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Model M, 5 H. P. (chain drive) $215
Model K, 4 H. P. (belt drive) $200
Model H, Lightweight - - $165

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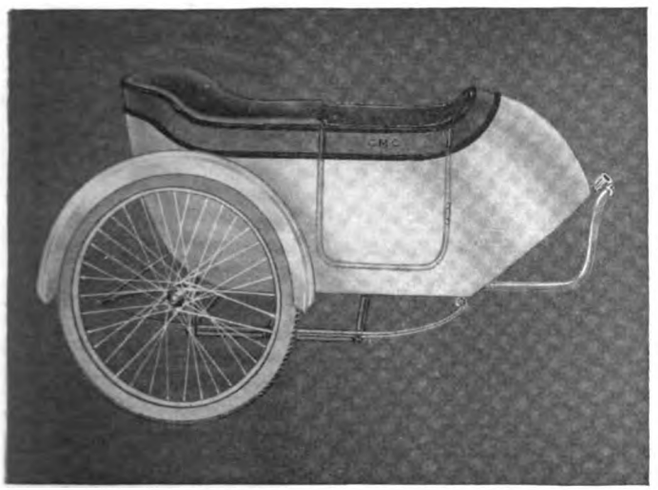
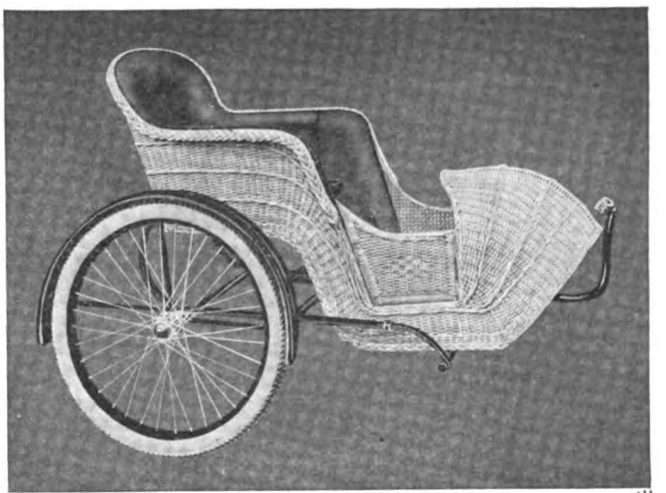


"AUTO CAR" MODEL—ALUMINUM BODY



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SEVEN-PASSENGER HAYNES car, fully equipped 1909 model; will excange for 1912 Ford or similar car. 1507 Bushwick Ave., Brooklyn.

FOR SALE.—Harley-Davidson 4 h. p. single magneto, 1911 model, good running order; 2¾-in. rear tire (new), speedometer and whistle; $150. R. J. Mueller, Rhinelander, Wis.

FOR SALE.—August Schickel, run 800 miles; like new; magneto, big tires, free engine; A1 condition. Reason for selling, want big 6 model. First check for $150 takes it. Act quickly if you want a bargain. Jno. E. McLeod, Washington, Kan.

MOTORCYCLE Dealers and Riders, Attention—1913 Peerless luggage carrier cushions for Indians, Merkels and others. Newest and best. Get prices from dealers or direct. Johnson, Cushion Mfg'r, Detroit, Mich.

FOR SALE.—7 h. p. Indian (1912), practically new; cheap for cash, or exchange for a Pope single. W. L. Hooker, 54 Blaine St., North East, Pa.

FOR SALE.—1912 6 h. p. Merkel; almost like new; run less than 300 miles. Price $195. Lewis Becker, Atlanta, N. Y.

DO NOT OVERLOOK to get our bargain list. Speedometers, $6.50 up; Pres-O-Lite, $8; side cars, $35 up; pennant holders, 20c., postpaid; tandems with seat, $5. Many other bargains. Investigate. Motorcycle Exchange, Schenectady, N. Y.

FOR SALE.—1912 Bradley; good condition; exceptionally fast; cheap; also ported cylinder racing car; carbureter, piston for Flanders "4." $15. Frank Gravett, 2203 Fairmont, Atlantic City, N. J.

FOR SALE.—Standard $20 speedometer, 80-mile dial, $10. Set of new drive chains $2.25; fit Indian or other machines. H. Emrick, 1643 W. Monument, Dayton, Ohio.

FORD MODEL "T" 5-passenger touring car; purchased new June, 1912; just overhauled; brand new tires; fully equipped; sell for $350 cash or $400 installments. Would consider late model motorcycle in part payment. Ship for inspection. Photo. Address "Ford," care of MOTORCYCLE ILLUSTRATED.

MODEL 8 E. 7-8 h. p. Twin Harley-Davidson; good as new; only run 1,500 miles; tires good; tandem, lamp, horn and Presto tank; all for $190. Address Grover Browning, 212 Scoby St., Greensburg, Ind.

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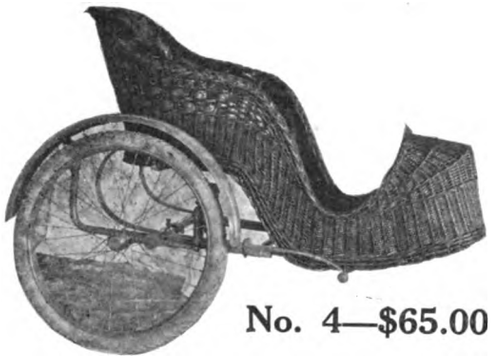

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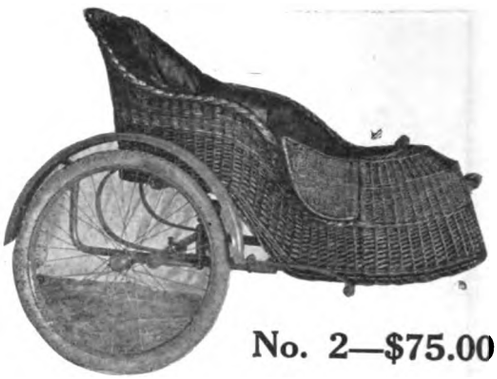

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A glance at the Chassis shown herewith will convince the most skeptical observer of the powerful construction of the frame. Built of seamless steel tubing, double reenforced at every point, yet inconceivably light, owing to scientific distribution of weight, perfectly balanced with but two points of attachment, both quick-detachable, the Baxter frame is as close an approach to indestructibility as is possible to attain.

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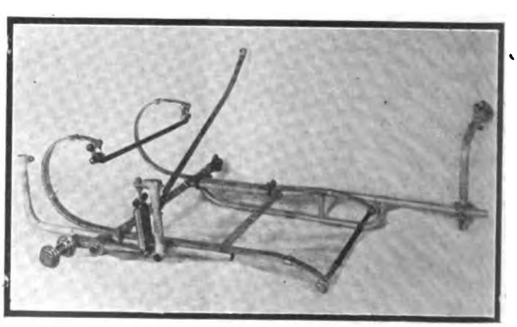

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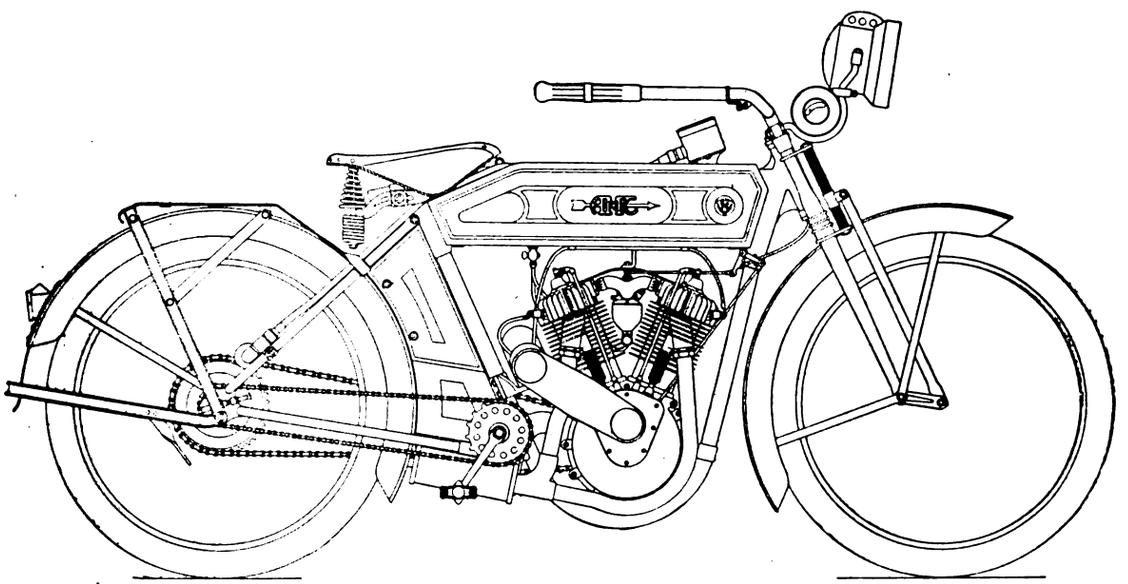

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"Always There"

Have you seen the SPLITDORF MAGNETOS—the sensational stars of the motorcycle firmament?

If not, get busy! Waste no time in "wising up" on the newcomers that are to figure so heavily in the equipment of the future.

There is nothing to it—the wide-awake motorcyclist wants and gets the best. He is missing no opportunity to become thoroughly acquainted with the season's offerings and the SPLITDORF MAGNETOS loom up as the ONE BEST BET where ignition is concerned.

The newcomers are **waterproof.** No short circuiting troubles through rain and mud —no water, mud or waste oil can penetrate SPLITDORF MAGNETOS.

The best engineering skill has been devoted to the construction of these instruments to make them electrically efficient, aside from the all-important waterproof feature.

Windings have been made to insure the fat, live spark that, although retarded, makes the **starting easy.**

In other words, they are "there with the goods" and, as running mates to SPLITDORF PLUGS, make an IGNITION TEAM unbeatable for effectiveness.

There's no motorcycle PLUG, by the way, like the SPLITDORF, because it's the one plug **made for motorcycle use.**

Racers and road-pluggers alike swear **by it** and not **at it.** They know by experience that perfect ignition is gained by its use and now that the waterproof and fool-proof SPLITDORF MAGNETOS have arived the feeling is general that the ignition problems are solved satisfactorily.

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If interested in any form of ignition for gasoline motors, just write in for our free literature. Our new catalog, our "Racing Record" or our "New Lights for Old" is yours for the asking. Do it TODAY.

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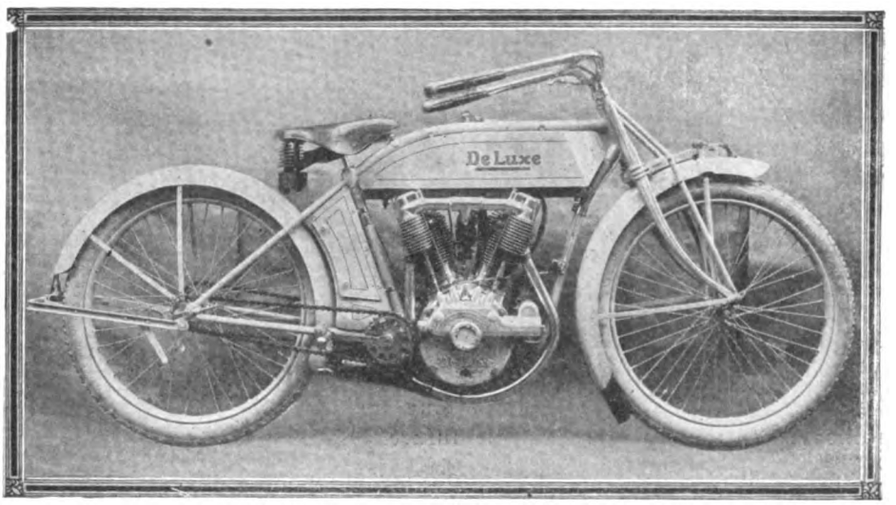

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"Built for the Road by Men Who Know."

De Luxe Motorcycles

Twins Only for 1913

IT is natural for every manufacturer to claim that his motorcycle is the best; but the up-to-date motorcyclist, particularly the experienced rider looking for his second or third machine, MUST BE SHOWN.

We therefore offer the following points of De Luxe superiority for critical consideration.

THE DE LUXE MOTOR

The real fundamental element of any motorcycle is the power plant, and the De Luxe motor is so far beyond any other motorcycle engine in every point in motorcycling that that alone puts the De Luxe in a class far above the rest.

The De Luxe motor is designed right by experienced engineers and built right in one of the most completely equipped plants in the country, by selected mechanics who know and appreciate the necessity of absolute accuracy and perfection of workmanship.

The predominant features of this motor are the single horizontal cam-shaft, which operates both the exhaust and intake valves, and drives the magneto, thereby positively assuring absolute accuracy of timing, both of valves and ignition.

The De Luxe is the only motor ever built with overhead mechanically operated inlet valves, all working parts of which are inclosed and run in oil. Thus, it naturally follows that De Luxe is silent.

The main shaft runs on the finest imported annular ball bearings. The connecting rod bearings are the roller type and extra large, thereby assuring a practically frictionless motor. The fly wheels are large and perfectly balanced, thereby eliminating vibration and allowing an extraordinarily high compression. The total of all this is a motor of maximum power, minimum parts, and one that is absolutely silent and frictionless.

FRAME AND FORK CONSTRUCTION

The De Luxe frame has been designed with the utmost care and the lines and re-inforcements are the result of scientific calculation. The fork is the now familiar trussed type with the familiar cradle spring. The main fork sides extend from the hub to the handle bar, with a two-point connection at the top.

The fork stem proper runs from the forged fork crown to the forged clamp that embraces the top of this stem and the fork sides. Thus the centre fork stem acts really as a pivotal member and all the load is carried by the fork sides.

There are, however, no unnecessary frills or freak schemes, which simply serve to complicate and increase the cost of a machine, without in any way improving it mechanically.

These are only a few points. The machine is built equally well throughout, and no motorcyclist can afford to buy his 1913 motor —and no dealer can afford to prepare for his 1913 business, without first carefully inspecting the De Luxe and De Luxe selling policy.

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The Latest Edition to the Family of

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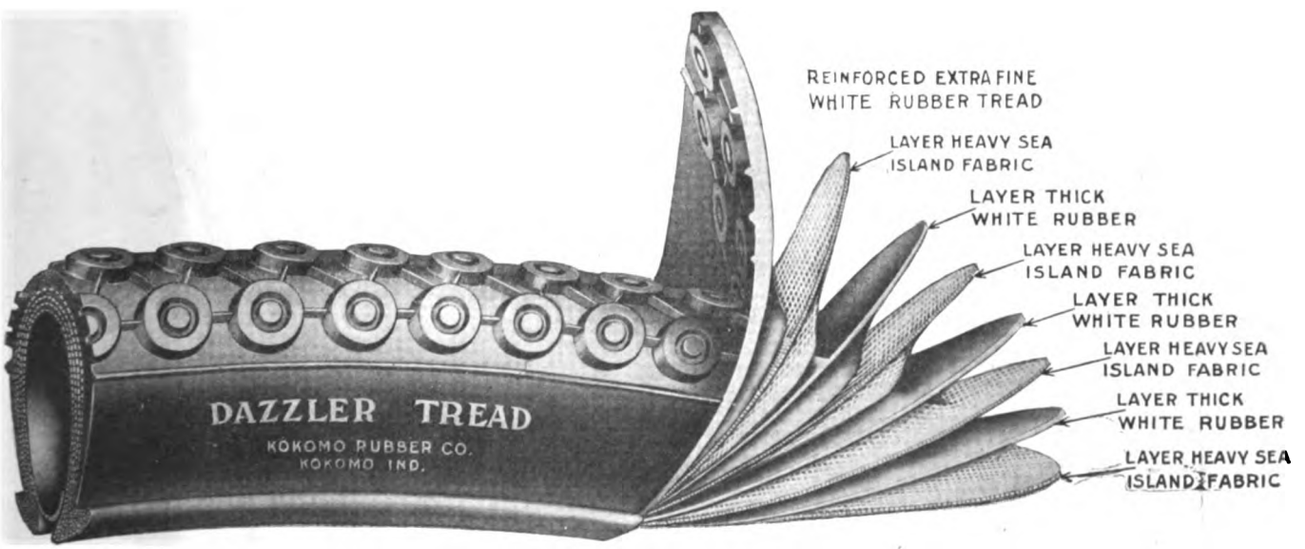

Dazzling indeed in its aggregation of service insuring features is this new arrival in the Kokomo group.

Note the distinctive studs. Your eyes give you the most convincing testimony as to their efficiency as skid and side-slip preventatives. Your common sense tells you that it would be impossible to find a more effective tread. And give your close attention to the seven alternating layers of thick white rubber and heavy Sea Island cotton. Can you find anywhere a more efficient, businesslike tire? (Chorus) NO!

Send for our catalog. It tells the whole story.

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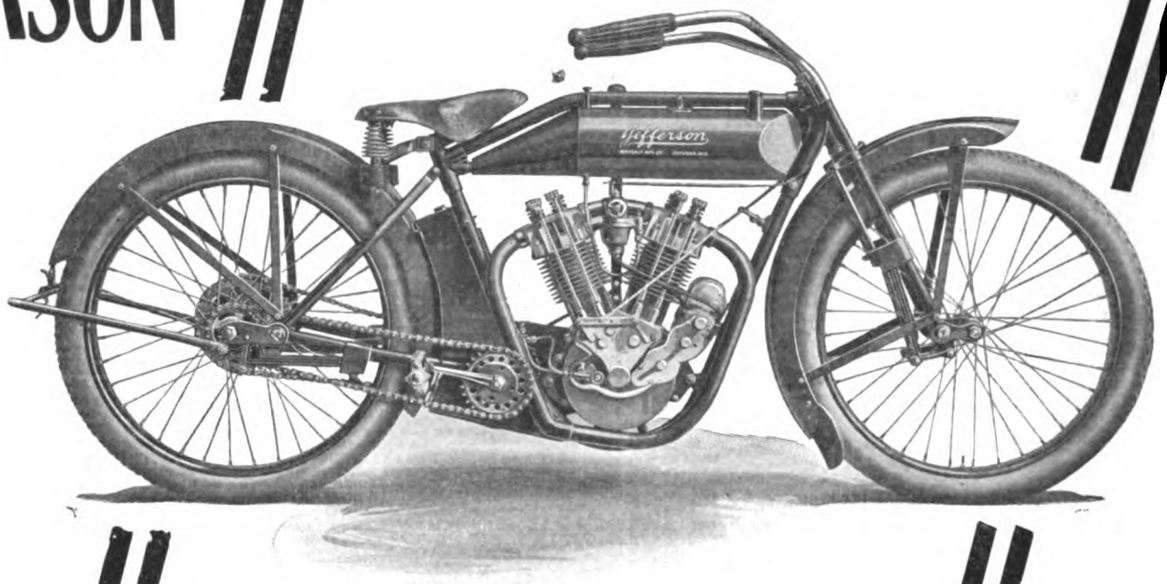

An Elegant, Powerful Durable Machine

The impression invariably brought to the mind at a first glimpse of the Jefferson is, "Here is a clean-looking, thoroughbred machine." And in performance the Jefferson more than makes good the promise of its snappy appearance.

During the past year, under the name of P. E. M., the Jefferson IV won 37 races out of the 47 which it entered and came second in ten. The Jefferson IV won six races against twins. The reason for these spectacular performances can be found in

The Jefferson Motor

For quick acceleration, for tremendous power, for smooth, vibrationless clean-cut action, the Waverley Engine is easily the peer of motorcycle motors. Bosch Armored Magneto, Mechanical Valves, large ball-bearing parts and perfect balancing complete a motor that cannot help but be perfect in service.

The perfected automobile leaf springs, for which the Jefferson holds original patents, makes comfort a foregone conclusion and immeasurably strengthens the frame of the Jefferson.

For the rider who desires power, speed, appearance, comfort, durability in his mount; for the dealer who wants to make the 1913 season spell "Big Business" to him, we prescribe THE JEFFERSON.

Dealers—Please Pay Attention to This

We want to send you our catalog and agency proposition. It is to your advantage to investigate.

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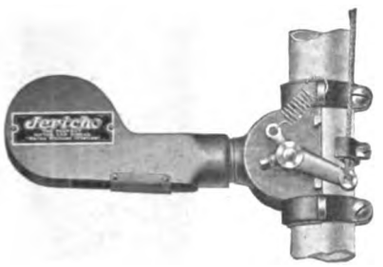

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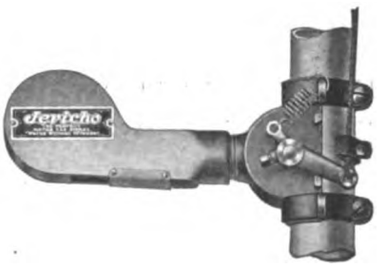

Jericho

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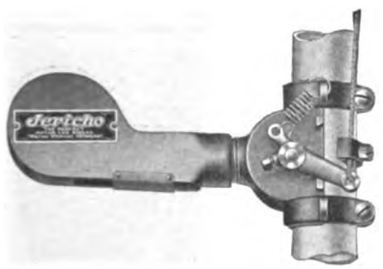
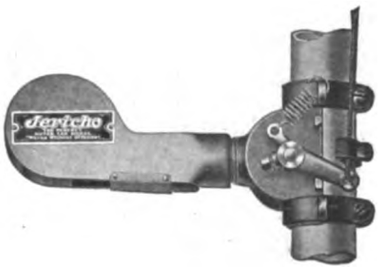
And on you go!
IT'S A DANDY.

Jericho

MOTORCYCLE HORN





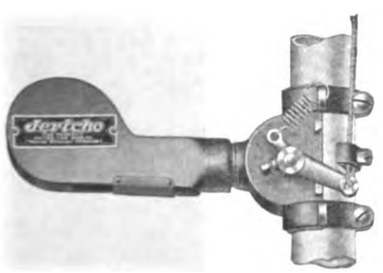
costs nothing to operate and is simple to attach.

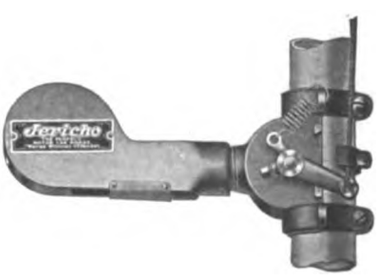
Jericho Motorcycle Horn is the only exhaust signal that actually cannot clog or get out of order. Jericho has a far-reaching and penetrating, yet mellow tone, and never fails to give effective warning.

Jericho is guaranteed for the life of your motorcycle.

Price Complete, $4.50

You can get the Jericho Motorcycle Horn at all up-to-date supply houses; or write to the manufacturers,





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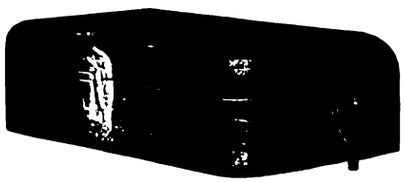

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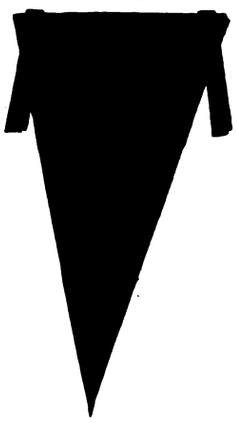

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Dealers should get busy and stock a few hundred pennants. As a wall-hanger, no more attractive advertisement can be found. And riders would welcome an opportunity to decorate their machines with pennants. We not only make pennants for the make of motorcycle you handle, but we also can furnish pennants for every city in the United States.

Write us at once for quotations and send 10c. for sample pennant.

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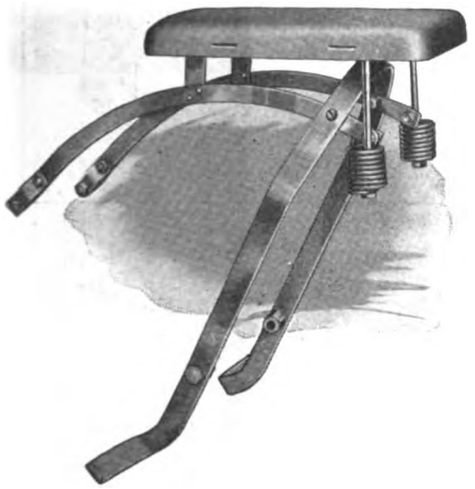

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Size of top, 8 x 14".
Here is the neatest and most practical carrier on the market.
The top is just the right size for carrying passengers—it is not too wide to straddle. Carrier is furnished with a pair of axle nuts and will fit any motorcycle. Special lugs to fit Indian. Enameled in five colors—Red, Gray, Blue, Yellow and Black.

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Designed by the

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AS USUAL EVERY ERO accessory is far ahead. Ero designs and ideas are exclusive and you get your money's worth.

The Ero line for this year just bristles with useful things that we were the first to produce.

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Fourteen Thousand Riders Read

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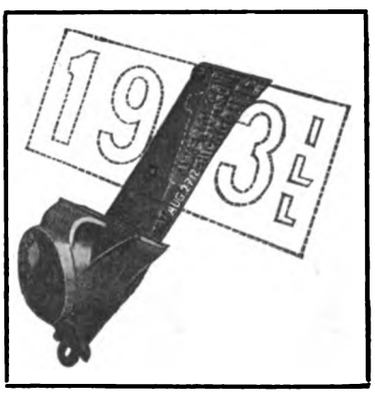

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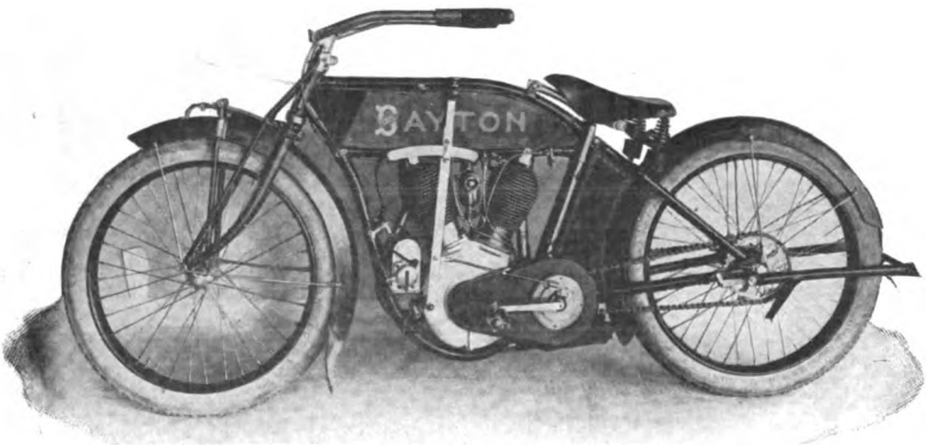

Have You Seen the Answer ?

If you are wondering how to build up a bigger motorcycle business, how to make more friends among the riders and bring them into your store, you will find the answer in our agency proposition. You will find that the Dayton is a good proposition for the dealer because it is a good motorcycle for the rider to own. Your request on the coupon below will bring our proposition by return mail.

Davis Sewing Machine Co.

(MI)

DAVIS SEWING MACHINE CO., DAYTON, OHIO.

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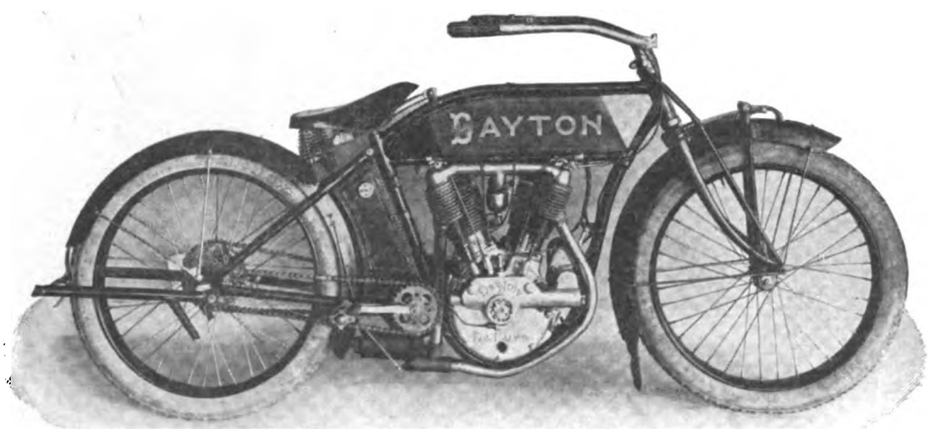

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The strongest guarantee a manufacturer can give

"STANDARD SEAMLESS STEEL TUBING." If a manufacturer's specifications contain these words, you need no further assurance of the machine's strength and durability. That is the strongest guarantee a manufacturer can give. The use of

STANDARD TUBING

in a machine's manufacture means that no road conditions can cause the frame of that motorcycle to break. It means that wherever you may ride, on the road or track, fast or slow, the frame of your motorcycle is immune from disaster.

More and more manufacturers are learning that a motorcycle, in order to be built right, must have a solid foundation. That no matter how powerful the motor, how perfect the machine's construction, insofar as propelling power is concerned, if the skeleton which holds the vital parts of the machine together and must bear the weight of the rider and the impact of the road—if this frame has any fundamental weakness, the machine **must** make way for others whose ability to stand up is assured by STANDARD SEAMLESS STEEL TUBING.

We make over 75% of all frame tubing, rims and mudguards used in the United States. And we feel justified in claiming that we are directly responsible for the reputation of American motorcycles as the strongest made.

WE ARE PREPARED TO TALK 1913-14 BUSINESS NOW.

THE STANDARD WELDING COMPANY

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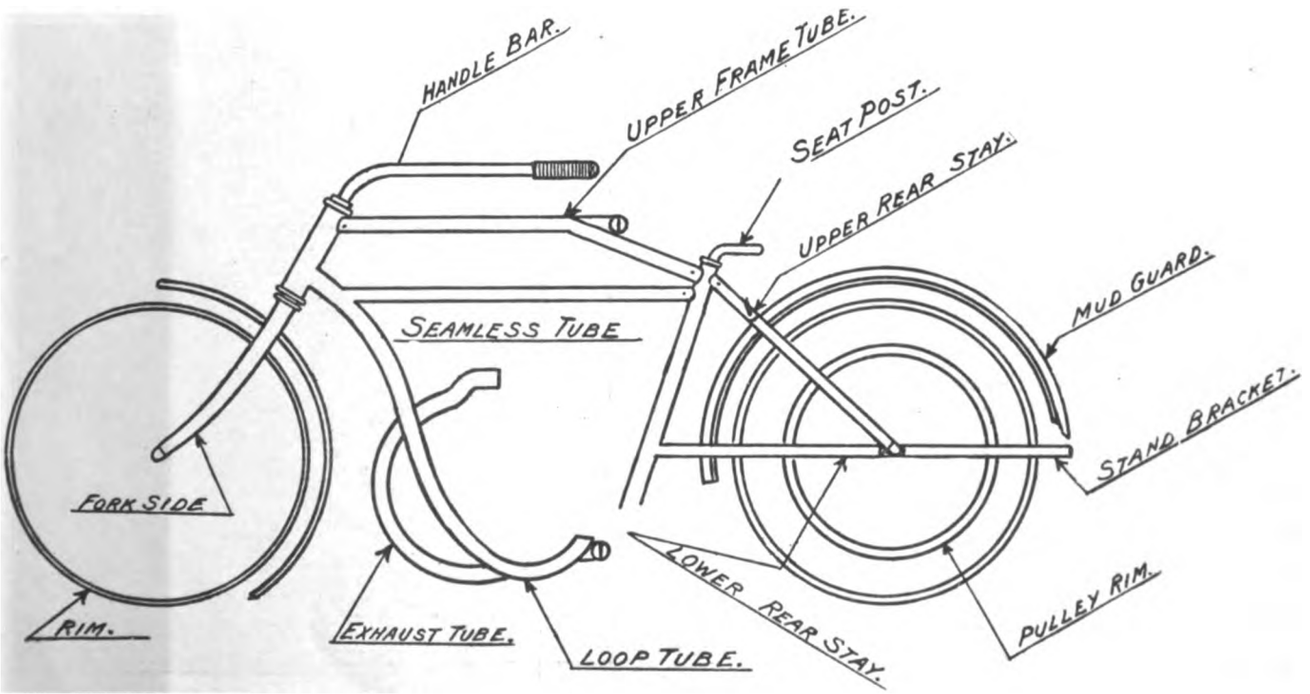

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"Wetprufe" motorcycle belts are the result of 40 years' experience and skill in the manufacture of belts.

We've been at it that long and we ought to know how to make the best belt.

And we do!

That's why we can guarantee each "Wetprufe" belt to be water-proof and weather-proof. That's why each "Wetprufe" belt is guaranteed not to crack or open at the laps or plies.

The only way to get your money's worth is to buy a guaranteed belt.

There's only one. It's "Wetprufe."

Your dealer can supply you with a "Wetprufe" belt. Additional "Wetprufe" facts if you will write us.

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Patent applied for
MODEL A

Mueller Tandem Attachments
TO FIT ALL INDIAN MOTOCYCLES
Specially Adapted to New Spring Frame Models

MODEL A attachment is for 1913 spring frame machine and does not interfere with frame action. Attachment is made of steel tubing and drop forgings, well brazed—enameled and nickeled. Large Troxel motorcycle saddle, Kelly adjustable handle bars, standard No. 3 pedals. Enameled red to match motorcycle.

MODEL B attachment will fit all rigid frames fitted with luggage carrier bosses. Also made with curved tube to attach on forward seat post when desired. Colors: Red, blue or green.

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MODEL B

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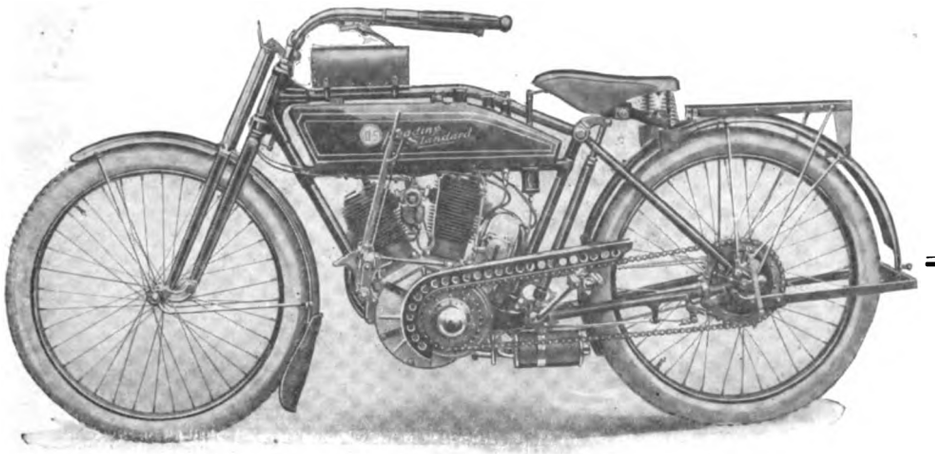

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FROM EVERY POINT OF VIEW

1913--Reading-Standard--1913

What did nine out of every ten visitors at the New York Show say about the three models of the R-S shown there?

"That's the Motorcycle That Will Stand Up Under Service"

Visiting engineers, competent to judge, offered their opinion—that the R-S embodied those common sense features making for strength where it is needed most, absolute **reliability** and **comfort.**

It isn't necessary for us to say more about the 1913 R-S. See us at Chicago, Space 31. We'll show you.

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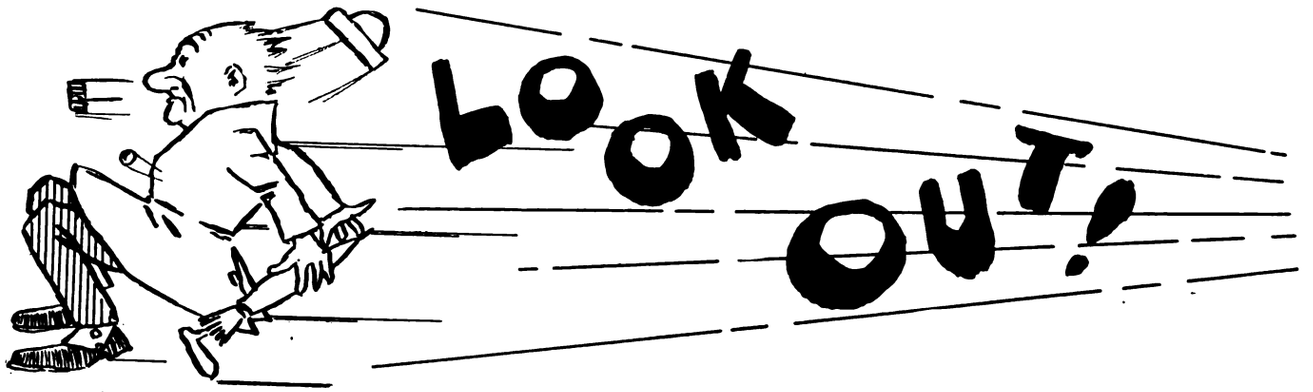

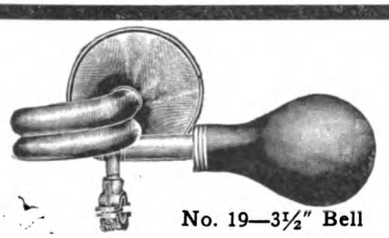
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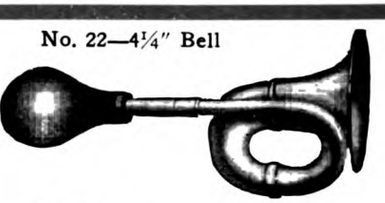

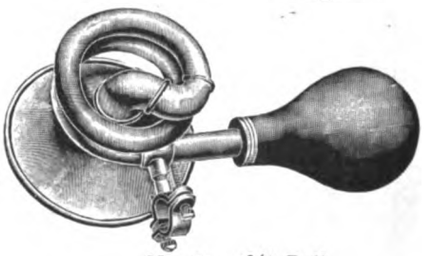
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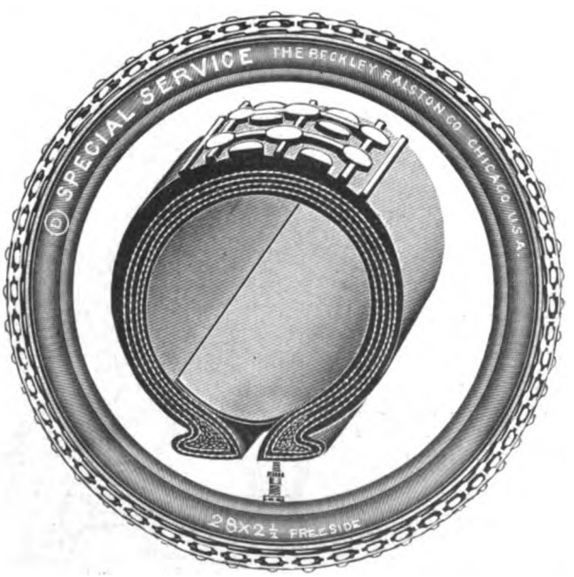

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A LITTLE BETTER THAN OTHERS. PRICE EACH (LIST) $13.00.

Willard Storage Battery. Most economical form of Lighting. When this fact is generally known motorcycles now carrying Gas Lights will change over to Electricity—2 Volt, 50 Amp.

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THE BECKLEY-RALSTON CO., CHICAGO

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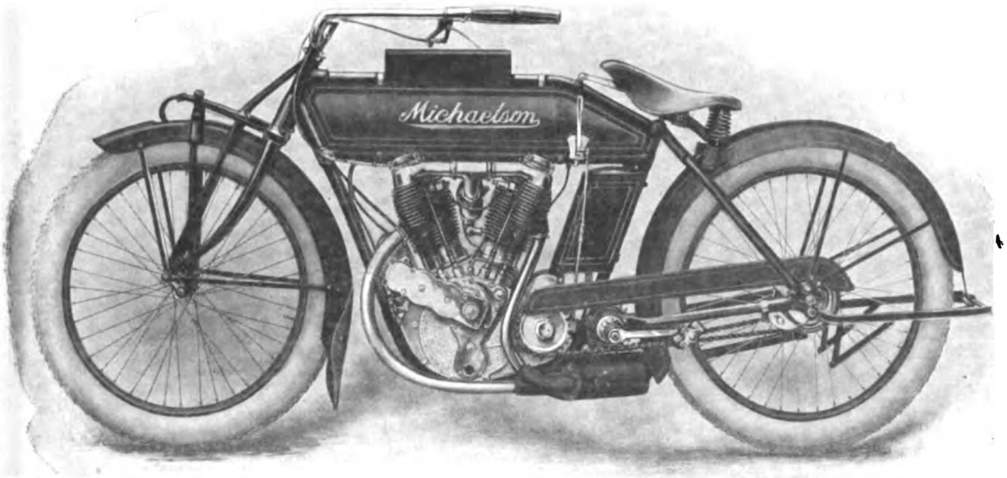

Model "10A," 10-13 H. P.

This Is A Two-Speed Year

And The Michaelson is THERE

The time has come when the two-speed gear is almost absolutely essential. With the growth of sidecar enthusiasm, without any appreciable improvement in road conditions, only the man with a two-speed machine can claim an absolute assurance of his ability to conquer every road or hill without the slightest suspicion of a "stall."

With the Michaelson, aside from its other high-class features, is offered the most simple, most perfect, most durable two-speed gear in the world. It is the product of an engineer who has been the designer and builder of two-speed machines for over five years.

Note these Specifications

Improved, Two-Speed Gear, Extra Heavy; Enclosed **Clutch** running in oil; Clutch Control Lever on Handlebar; **Mechanical** Oiler, also Hand Pump; Enclosed Rocker Arms; **Extra Heavy** Roller Chain, 5/16" x ¾" pitch; Chain Guard full length; **Cushion** Seat Post; 3" Tires, front and rear; 1½" Exhaust Pipe, **Silent** Muffler.

We offer dealers the strongest proposition of the year. **Write** quick for terms.

OUR TRI-CARS ARE READY FOR DELIVERY

The Michaelson Motor Company

Our catalog explains in detail. Get it.

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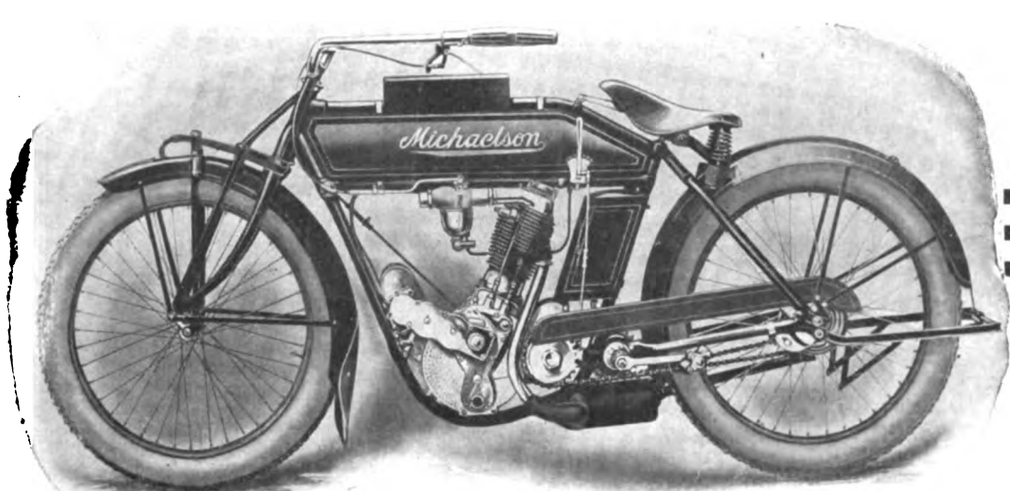

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WANTED—

REPRESENTATION FROM LIVE DEALERS TO SELL THE CELEBRATED LINE OF ANGSTEN-KOCH ACCESSORIES. WE HAVE A PROPOSITION THAT MEANS AS MUCH TO YOU AS YOUR AGENCY. WE SELL ONLY WHAT WE MAKE—HAVE THE FACTORY BEHIND IT TO MAKE SHIPMENTS WHEN THE RUSH COMES. WHEN VISITING CHICAGO MAKE IT A POINT TO SEE OUR FACTORY, WE WANT YOU TO GET BETTER ACQUAINTED WITH US AND OUR GOODS. FILL OUT COUPON BELOW, NOW. IT WILL COST YOU NO EFFORT—IT MEANS MONEY FOR YOU.

ANGSTEN-KOCH CO., CHICAGO.

I AM ONE OF THOSE DEALERS WHO NEVER BELIEVES IN OVERLOOKING A GOOD PROPOSITION. I WANT TO KNOW MORE OF YOUR LINE—SEND ME WITHOUT OBLIGATION ON MY PART—INFORMATION AND DESCRIPTIVE MATTER AND PRICES.

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ADDRESS .....

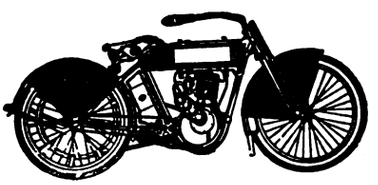
ANGSTEN-KOCH COMPANY
INCORPORATED
MAKERS OF
GOOD SPECIALTIES
CHICAGO
215-219 Englewood Ave.

EXHIBITING CHICAGO SHOW, SPACE 10

REMEMBER PREMIER LEGGINGS AND MOTORCYCLE FABRIC SUPPLIES

Our trade will tell you that once you buy PREMIER you never buy any other make.

These illustrations are a few of our extensive line.



PREMIER TRADE MARK

PREMIER NOVELTY MFG. CO.
83-85 White Street New York

Our complete 1913 catalog is furnished free on request.

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Held Under Auspices and Sanctioned by the Motorcycle Manufacturers' Association

February 3 to 8, 1913

AT

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The Greatest and Only National Motorcycle, Bicycle and Accessory Show of the Year.

Dealers and Riders

Visit this Enormous Exhibition

See and inspect the products of every manufacturer. Know personally the progress achieved by the entire industry. An education worth while. Come! We want to see you.

Motorcycle Manufacturers' Association

Office at 116 So. Michigan Ave., Chicago, Ill.

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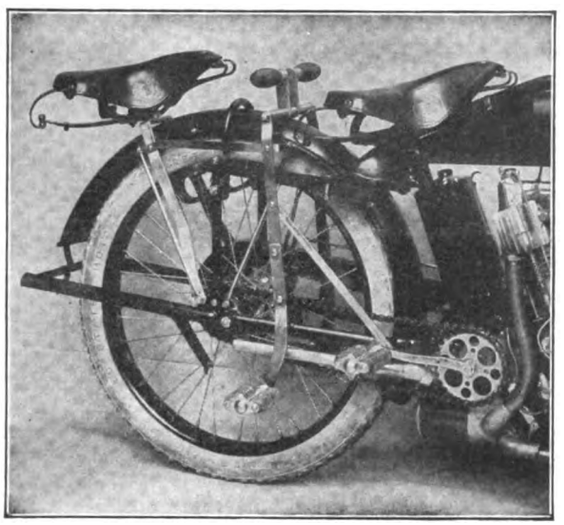
BU-REM MOTORCYCLE SPECIALTIES

The Most Practical and Most Up-to-Date Motorcycle Appliances on the Market

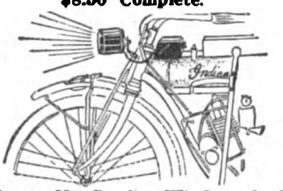
Note the Compactness and Simplicity of our Specialties. They are made to please.

Bu-Rem Tandem Attachment For 1913 INDIAN.
Price $15.00 Complete with Saddle.

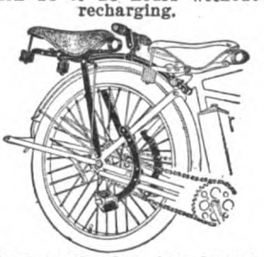


Distributors for THE SILENT INDIAN
Cincinnati and Vicinity

Bu-Rem Electric Light Outfit.
$8.50 Complete.

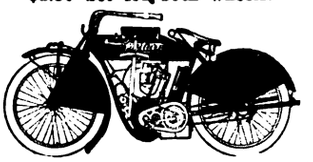


No Flame, No Smoke, Windproof. Will burn 14 to 28 hours without recharging.



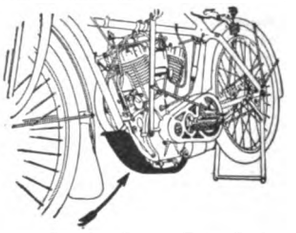
Bu-Rem Tandem Attachment.
Fits All Loop Frame INDIANS except 1913 Model. Price, less saddle, $12.00.

Bu-Rem Dust and Mud Shields.
$1.50 Set for both wheels.



Protect Rider and Machine. Save labor and inconvenience of cleaning.

Bu-Rem Crank Case Protectors, $1.00.

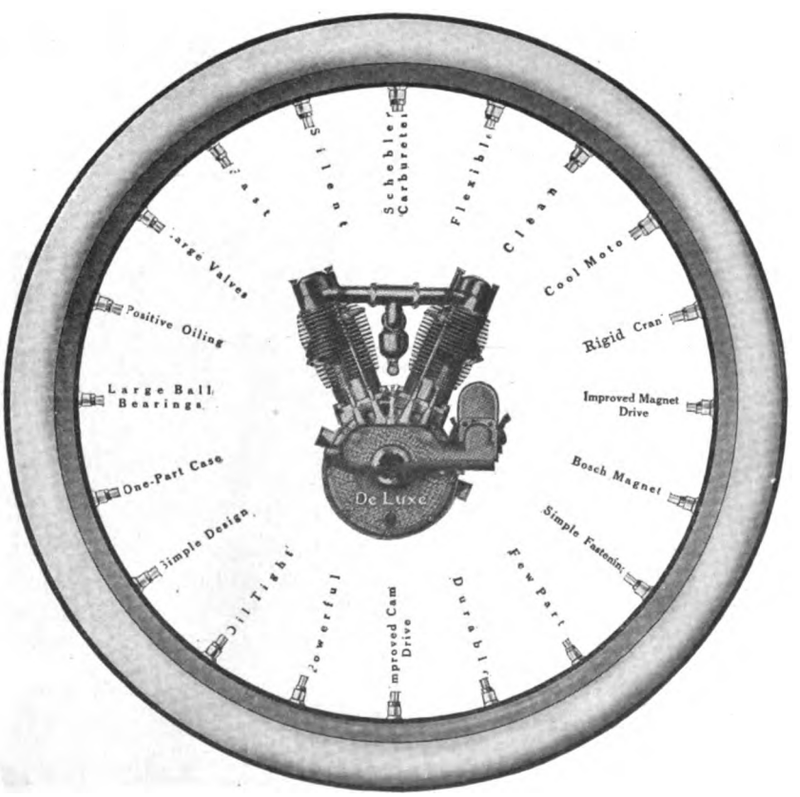


Protect Crank Case, Pet Cocks and Motor. Will fit all makes with Loop Frames.

The BUMILLER REMELIN COMPANY

Manufacturers—Jobbers—Dealers **Cincinnati, Ohio**

Like the Spokes in a Wheel,
DeLuxe
Motorcycle Motors Radiate Good Points.



THE F. W. SPACKE MACHINE COMPANY

Indianapolis, Indiana, U. S. A.

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Diamond
MOTORCYCLE TIRES

NOW MADE OF

VITALIZED RUBBER

AND IN TWO FAMOUS TREADS

SAFETY

(SQUEEGEE)

AND

STUDDED

BOTH WITH A

DISTINCTIVE DIAMOND FEATURE

"MORE MILEAGE" STRIP

Vitalized Rubber is pure young rubber combined—by a secret process known only to ourselves—with a toughening compound and the result is the toughest, most wear-resisting material ever put into a motorcycle tire.

A brand new and exclusive Diamond feature is the mileage strip—extending all round the tire and adding 20% to the wearing surface of the tread. It not only means greater mileage, but it puts the side-slip bugaboo into the discard.

You have the choice of two treads—Safety (Squeegee) and Studded. The sharp, clear-cut studs on the new Diamond motorcycle tire, combined with the mileage strip, will hold your machine where you want it better than any other studded tread tire you can buy.

And, in addition to all these things, you get perfect 3-point rim contact—an assurance that the tire will sit perfectly in the rim. No unnatural distortion or bending of plies to break down the tire before it has given the mileage you pay for and should get.

THE DIAMOND RUBBER CO. OF NEW YORK
AKRON, OHIO

(Subsidiary of The B. F. Goodrich Co.)

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1913 PURDY WHISTLES

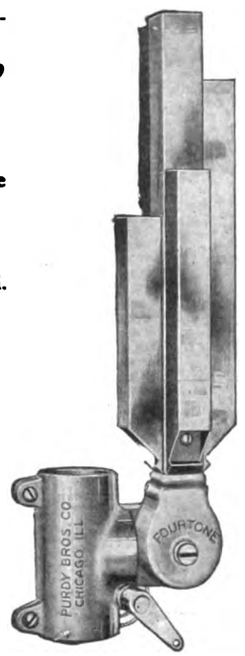
After several years' experience in the manufacture of motorcycle whistles we take pleasure in presenting these new alarms.

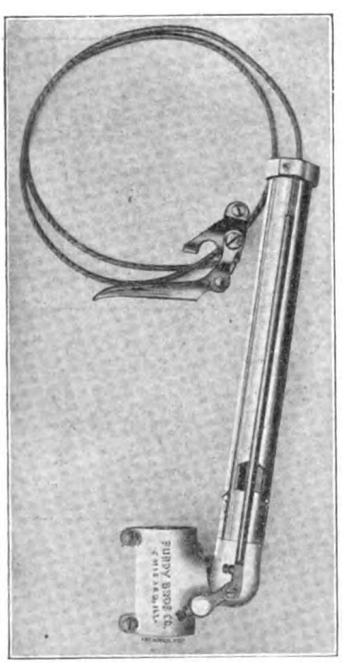
The Perfection of Motorcycle Warnings.

Purdy "Fourtone"

Harmonious and far-reaching tones.
New style "Purdy" valve.
Whistle can be adjusted to any angle and locks into position.
No pipe connection to jar loose.
Weighs less than two pounds.
Handle Bar or Foot Board Control.

Price, complete, $7.50.





Improved Model "B"

The popular single tone alarm with the following improvements:

New "Purdy" valve, adjustable to any angle.
Sleeve and exposed spiral springs eliminated.

Price, complete, $6.00.

Send for descriptive circular and complete catalogue of other specialties.

Dealers and Jobbers—Get our proposition.

Complete exhibit at the Chicago Show.

Purdy Brothers Co.

INCORPORATED

The oldest and largest manufacturers of Motorcycle Whistles.

941 West Garfield Boulevard

CHICAGO

TRADE MARK

Standard

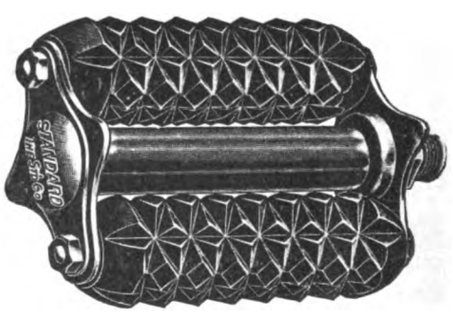
In Name and Quality

Never has there been a truer saying than the time-worn old adage, "It's the little things that count." And it is the degree of attention paid to these "little things," that determines oftimes the success or failure of a machine to "get across."

Wise manufacturers are equipping with Diamond "E" Spokes and Standard Pedals because they are quality goods—because they reduce the number of repair shop trips for the rider—because farsighted manufacturers realize that a motorcycle's weakest points are its strongest—and it is that infinite attention to detail which bespeaks perfection.

The dealer who looks ahead will stock heavily with Standard Pedals and Diamond "E" Spokes and Nipples. The motorcycles that are not so equipped will inevitably come to his shop for replacements and it is up to him to sustain his reputation for high-grade repair work by fitting Standard parts.

Everyone knows the superiority of Standard No. 3 Pedals, their deep, soft rubber cushions, the interchangeability of the rubbers, and the thousand and one other good features that are not found in other pedals. The feet cannot slip no matter how rough the going. And the perfection of Diamond "E" Spokes is proverbial.



THE STANDARD COMPANY

TORRINGTON CONNECTICUT

TRADE MARK

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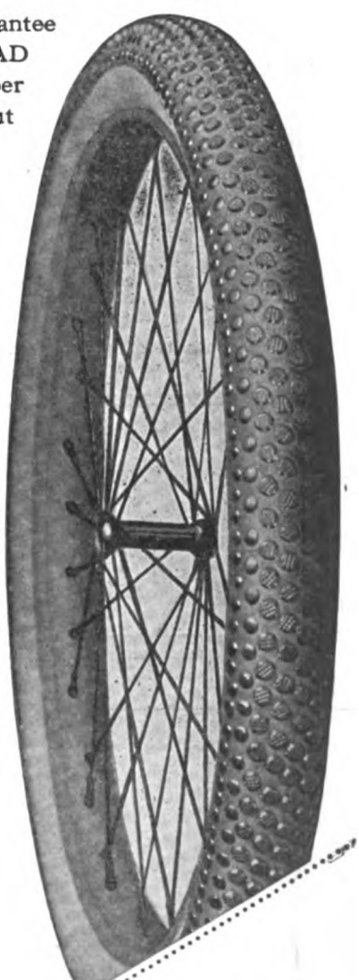
TIRE PROTECTION WITH A GUARANTEE

No longer is it necessary for motorcyclists to worry about PUNCTURES, BLOW-OUTS, GLASS CUTS, SKIDDING and unnecessary tire expense, which heretofore has MARRED the pleasure of all motoring—"BRICTSON" DETACHABLE TREADS will eliminate all this.

10,000 Mile Guarantee

SEND FOR COPY OF SAME

Yes, we will give you a 10,000 mile written guarantee with every "BRICTSON" MOTORCYCLE TREAD on a daily mileage basis of twenty-five miles per day. Can you get this kind of a guarantee on your rubber tires? Figure this guarantee out and you will see that it covers a period of 400 days.



Design and Construction

Made of select, specially prepared chrome tanned leather, soft and pliable, which gives with the "BRICTSON" the full benefit of the pneumatic tire. Studded on the surface with small neat-looking steel studs, designed to give perfect traction as well as a perfect "non-skid." There are layers of the best tire fabric between the layers of leather, which add strength and keep the tread from stretching. In addition to all these important features, the "BRICTSON" is lined perfectly smooth on the inside so there are no rivets or studs in contact with the rubber casing, making it impossible for the tread to injure the casing in any way.

The "BRICTSON" is the only scientifically constructed tread in that it CANNOT slip or slide on the rubber casing in ANY direction, owing to the patented, scientific method of fastening. It is held in position on the rubber casing by equal tension from all points of the circle, and for this reason may be adjusted to PERFECTLY fit the casing over which it is applied, which CANNOT be accomplished with any other method of fastening, and also envelops the entire casing, excluding sand, stones, mud, or even water from coming in contact with the rubber casing.

The "BRICTSON" is the ONLY TREAD THAT HAS PERFECT TENSION ADJUSTMENT FROM ALL POINTS OF THE CIRCLE, which other tread manufacturers have tried to imitate with metal contrivances that only detract from the appearance of the tread, add weight, and destroy the pneumatic feature, but still do not accomplish the desired result.

The "Brictson" Exclusive Patented Way of Fastening

The "BRICTSON" has no HOOPS, HOOKS, BUCKLES, SPRINGS, or any other unnecessary metal contrivances to add weight, break or eat into the rubber casing; neither is it cemented, laced, vulcanized, riveted or fastened to the rubber casing in any way—NATURAL INFLATION OF THE TIRE DOES THE TRICK—Simply clamped between the head of casing and rim—strictly Quick Detachable.

PRICES: One-half the price of a rubber casing and guaranteed three times as long. Compare the following prices:

26 x 2¼ $6.05	28 x 2½ $7.43	29 x 2¾ $8.15
26 x 2½ 6.60	28 x 2¾ 7.70	29 x 3 ..... 8.25
28 x 2¼ 7.15	28 x 3 ..... 7.98	

Other sizes on application.

Ask Your Dealer for "Brictson" Detachable Treads

Ask the best dealer in your town to show you the famous "BRICTSON" Guaranteed Detachable Tread. If for any reason he cannot supply you, fill out the attached ORDER BLANK, pin your check to same, mail it, and I will ship you the treads on TEN DAYS' FREE TRIAL, and if you don't find them perfectly satisfactory within 10 days from receipt of treads, return them and I will cheerfully refund your money. Remember, I take all the risk.

O. A. BRICTSON, President

The Brictson Mfg. Co.

2523 Brictson Building

Brookings, South Dakota

DEALER'S COUPON

O. A. Brictson,
President,
The Brictson Mfg. Co.,
2523 Brictson Bldg.,
Brookings, So. Dak.

Without obligation on my part, send me your Dealer's Prices Catalogue and full particulars.

Name.....

City..... State.....

County.....

MOTORIST'S COUPON ORDER BLANK

O. A. Brictson,
President,
The Brictson Mfg. Co.,
2523 Brictson Bldg.,
Brookings, So. Dak.

Enclosed please find.....

in the sum of $.....for which

ship by ex. or frt.....(quantity).....Brictson

Motorcycle Treads, size.....with the understanding if they are not perfectly satisfactory I may return them within 10 days from receipt of shipment and you will refund my money.

Signed.....

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Musical Signal Horn

The Most Popular Two-Tube Motorcycle Warning Signal Produced. Designed for Efficiency and Service. Nickel Plated, with Bulb and Clamp Attachment. Length, 11½ Inches.

No. 14. Price, $2.00.

Dealers! Get Your Name in for our 1913 Catalog

The Motor Car Equipment Co.

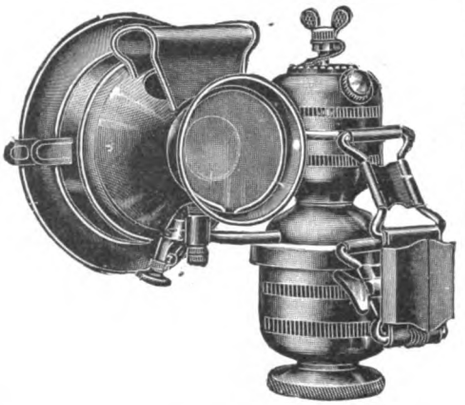
55 Warren Street

New York

WE SELL EXCLUSIVELY TO DEALERS

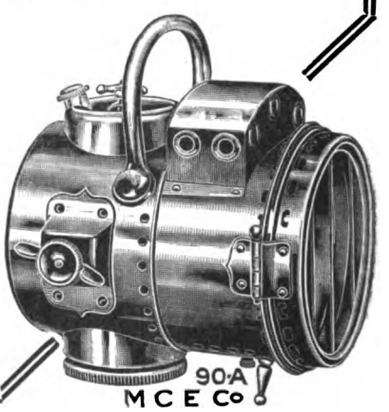
Our strict adherence to the policy of Protecting the Dealer by Not Soliciting Trade From His Customer, has given us pre-eminence in the automobile, motorcycle and bicycle supply field. We are amply equipped to give the **best** in **quality, service** and **price.** Here are Three Stunning Successes Any Dealer Can Handle with Amazing Results.

Duplex "Self-Lighter" Lamp



The law in most States requires rear lights on bicycles and motorcycles. The combination Duplex MEETS THIS REQUIREMENT. It lights up the road in front of the rider and also shows a RED LIGHT WARNING SIGNAL in the rear. This lamp is finished in nickel, has a flare-front door 4½ inches across and is fitted with a compact generator 2¼ inches in diameter. Height of lamp 5½ inches. This lamp attaches to fork on left side of wheel.

Price, $3.00 each

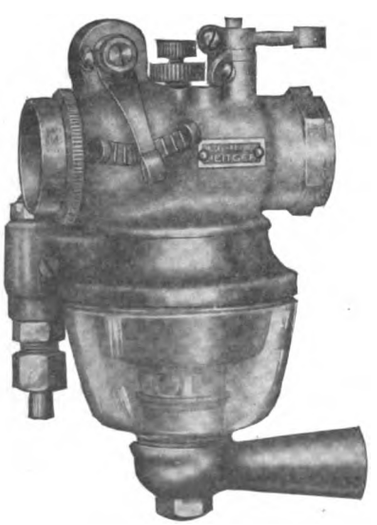


An Ideal Motorcyclist's Lamp. A "Close Coupled" Searchlight and Generator Combined. Weighs 28 ounces; size, 4 x 5 inches. Nickel Plated, Neatly Designed. No. 90 rear prop; No. 90A, side props.

Price $6.00 each

HEITGER MODEL K—1913

Made in ¾" and 1" pipe threads, and special threads for Spacke, Pope, H-D, Excelsior, Merkel, and Emblem, same list, ¾", $10.00; 1", $10.50. Where special fittings are needed, extra price. Has new air valve, no friction, or stems to wear, causing air leakage in low; air adjusted instantly from saddle, for starting, etc. Needs no priming in coldest weather. Furnished with glass or metal bowls, same price, the two being interchangeable.



HALF SIZE

Has new gasoline feed, two jets, one for low, one for high, with separate adjustments, giving minimum and maximum speeds. Owing to air valve action, etc., gives greatest possible speed to motor on minimum gasoline consumption. Light in weight, castings of aluminum, polished nickel plate.

Heitger Carbureter Co.

1129 Beecher St., INDIANAPOLIS, IND.

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The Better The Oil
The Better The Motor

The engine of a motorcycle is the most sensitive of gasolene motors. It quickly responds to good lubrication, and as quickly shows the injurious effects of poor oils. Nothing but the *best* should go into your motor—oils that have for years been tested and proven beyond a doubt to be the most efficient for gasolene motors—

HARRIS

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OILS

A little goes a long way and every drop counts.

Be sure to see our exhibit at the Show, Space 52, Coliseum gallery.

A. W. HARRIS OIL COMPANY

326 S. Water St., PROVIDENCE, R. I. 146 N. Wabash Ave., CHICAGO, ILL.

Even with porcelain BROKEN it sparks perfectly

Unlike all other plugs, J-M Plugs spark just as well with the porcelain broken, as when it is whole—even when the current is supplied by a high tension magneto.

This perfect sparking service is made possible by the ***double*** insulation of the

J-M Spark Plug

There are two absolutely independent insulations in the J-M Plug—an inner insulation of mica protected from injury by a porcelain insulation. If the porcelain is broken, the mica prevents current leakage, and sparking will be just as strong as if the plug were not damaged.

Other exclusive features of the J-M Plug are—

Case hardened center electrode that cannot expand and contract when heated by the engine. All joints packed with asbestos or high temperature cements, baked so that they never require adjustment or "tightening up."

Look for name "J-M" on every plug. Shipped direct, prepaid, from our nearest Branch on receipt of price, $1.00, if your dealer doesn't sell them.

Ask our nearest Branch to send you Booklet

H. W. JOHNS-MANVILLE CO.

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Baltimore	Cleveland	Los Angeles	New York	Seattle
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1933

12 of 16

makes of motorcycles at the New York Shows were Bosch-Equipt: 2 other makers of ignition divided the balance.

NO argument, no proof, no claim is so thoroughly convincing as is the showing of universal selection. The greatest engineers of the industry have acknowledged the superiority of Bosch; the extensive adoption of this method of ignition is the zenith of supremacy proof.

THE January issue of The Bosch News tells you more about Bosch Supremacy in the motorcycle field. The issue is yours for the asking; send for it today.

For 1913 Specify

Bosch Magneto
Bosch Plugs
Bosch Cable
etc.

Exhibiting at Chicago Motorcycle Show
Space 4, Main Floor

BOSCH MAGNETO COMPANY

206 West 46th St., NEW YORK

CHICAGO : DETROIT : SAN FRANCISCO

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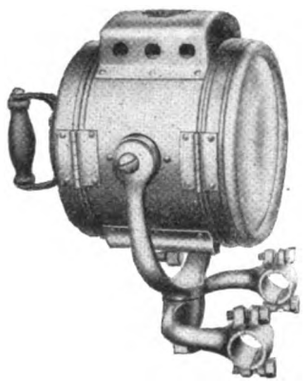


THE PATH-FINDER

The motorcycle lamp that searches the way to safe and joyous riding. Its powerful rays pierce the darkest night and light the road so far ahead of the rider that all strain and worry of night riding are immediately overcome.

You can turn or set it at any angle — enabling you to thoroughly explore any descending grade or curve and to have light for repairs on the rear wheel.

To be equipped with a Pathfinder means all the comfort of daylight. The material and workmanship are the best and we guarantee entire satisfaction.

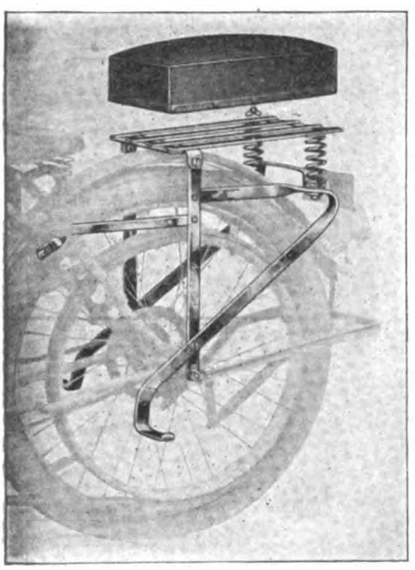
UNEXCELLED FOR MOTOR BOATS

Pathfinder Lamp Co.

147 North 4th Street
COLUMBUS, OHIO

TODAY IS THE DAY

TO TAKE CARE OF YOUR FUTURE REQUIREMENTS ON **ATLAS LIVE SPECIALTIES.**



HAVE YOU SEEN THE LATEST ATLAS IMPROVED SPRING COMBINATION CARRIER? Without a doubt the easiest riding one on the market.

IT'S A PIPPIN!

We manufacture a complete line of Luggage Carriers, Lamp Brackets, Tail Lamps, Leggins, Tool Rolls, Dust Guards, etc.

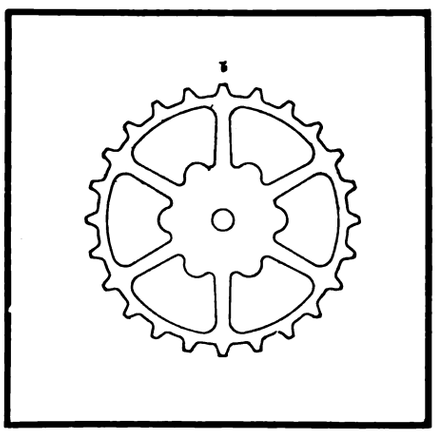
THE RIGHT GOODS AT THE RIGHT PRICES

You can get acquainted with us and our specialties at the **CHICAGO SHOW, BOOTH 27.**

ATLAS SPECIALTY MFG. CO.,

559-63 W. Jackson Blvd. **Chicago, Ill.**

SPROCKETS



Hydraulic Pressed Steel Co.

Cleveland, Ohio

STANDARD SPEEDOMETER

THE INSTRUMENT OF PERMANENT ACCURACY

New unbreakable steel shaft casing, heavy bevel joint. Nickel steel gears. Special axles for all motorcycles requiring swivel fittings. Drop forged and hardened swivel fittings with large bearing surfaces. Ball bearings in the bevel joint, shaft coupling and main spindle. The new outfit will stand hard usage without injury.

STANDARD THERMOMETER CO.
65 Shirley Street, Boston, Mass.

NEW PRICES, 1913 MODELS

Fittings Patented, the Only Practical Ones in Use

$16.00

Other Models
$14.50
and
$12.00

Dials 60 or 80 Miles

Every effort has been made to produce the neatest, most accurate, and above all, the most durable speedometer manufactured to date.

Catalogue on request.

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At Last—A Real Motorcycle Spark Plug!

MADE OF HEAT DEFYING, PERFECTLY INSULATING PORCELAIN—AND DESIGNED FOR MOTORCYLES ONLY

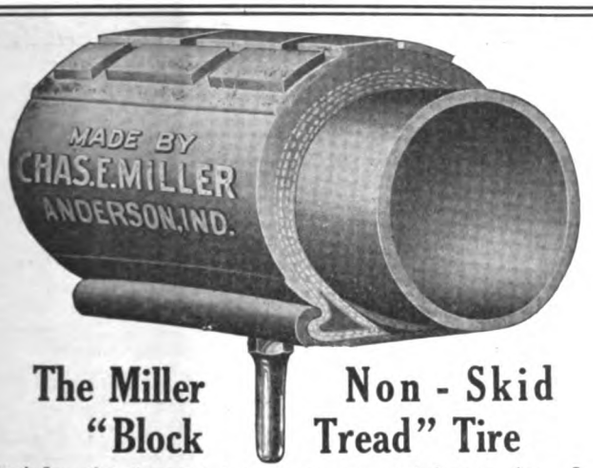
No need any longer to use the inferior mica plug or a makeshift porcelain. This new Motorcycle Standard Spark Plug, built by the greatest manufacturer of spark plugs in the world, gives motorcycle riders a plug with a porcelain insulator that is faultless, defies heat and insures perfect ignition.

MOTORCYCLE STANDARD SPARK PLUG—$1.00

Leading motorcycle engineers of the country have pronounced this plug right in principle and construction. The length over all is 2¼"—just the right size for the limited dimensions available for a spark plug in the motorcycle motor. The porcelain is made in our own potteries. Heat cannot crack it. The bushings are case hardened. The terminal nut will take ordinary wire, ring, or special "Indian" terminal.

Comes in half-inch or metric sizes. Your dealer will supply you—or sent prepaid on receipt of price and size. Our guarantee—"Your money back or a new plug, unless you are absolutely satisfied."

Jeffery-Dewitt Company **55 Butler Avenue, Detroit, Mich.**



The Miller "Block" Non-Skid Tread" Tire

Satisfies the demand for a stronger and larger tire. Its construction is such that it can withstand the most severe road conditions with minimum wear. **Prepaid to all Points.**

Miller's Non-Skid "Block Tread" Motorcycle Tires

Size	Tubes and Casings	Guaranteed	Heavy Red Tubes	Tube Casing
26x2½	"Block Tread"	.....	$2.60	$8.00
28x2½	" "	.....	2.75	8.80
28x2¾	" "	.....	2.85	9.75

Miller's Improved Adjustable Sectional Vulcanizer

One of the 37 kinds we manufacture. Repairs perfectly all sizes Bicycle, Motorcycle and Auto Tires and Tubes.

Our 44-page catalog, covering Auto Tires, Tire Repair Stocks and Tire Re-Liner, is yours for the asking. We also make the Standard Grade Tire, which is corrugated. This tire is lighter, but of the same quality of rubber and friction.

CHAS. E. MILLER
ANDERSON RUBBER WORKS
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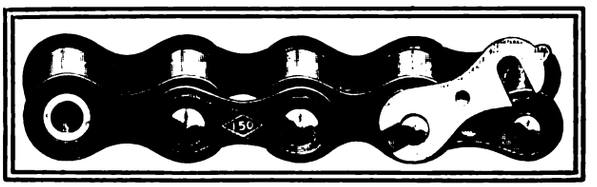

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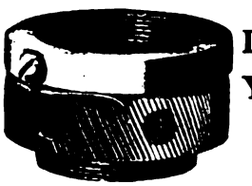

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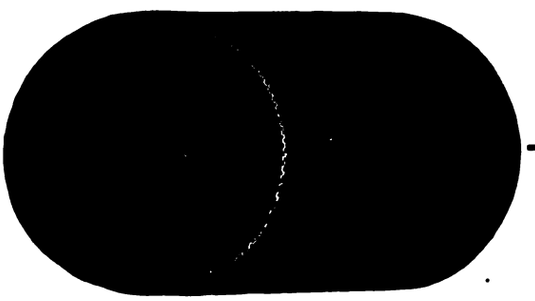

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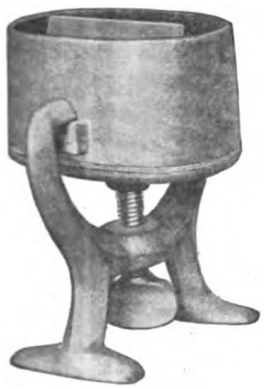

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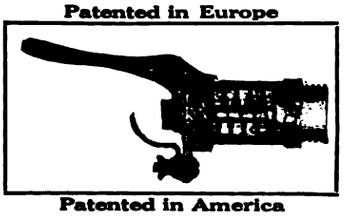

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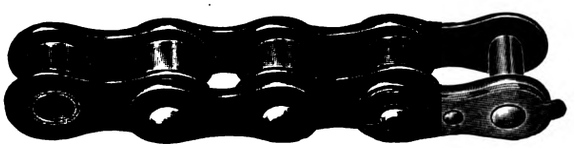

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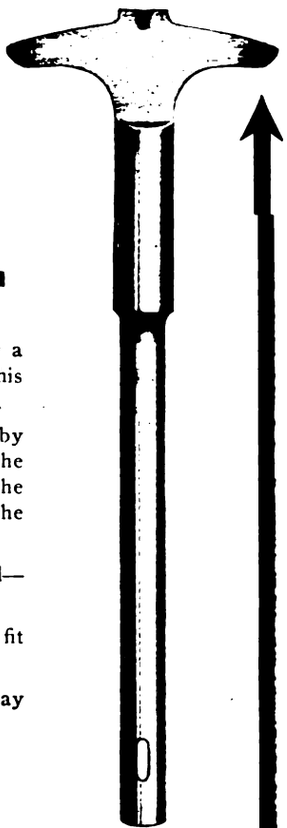

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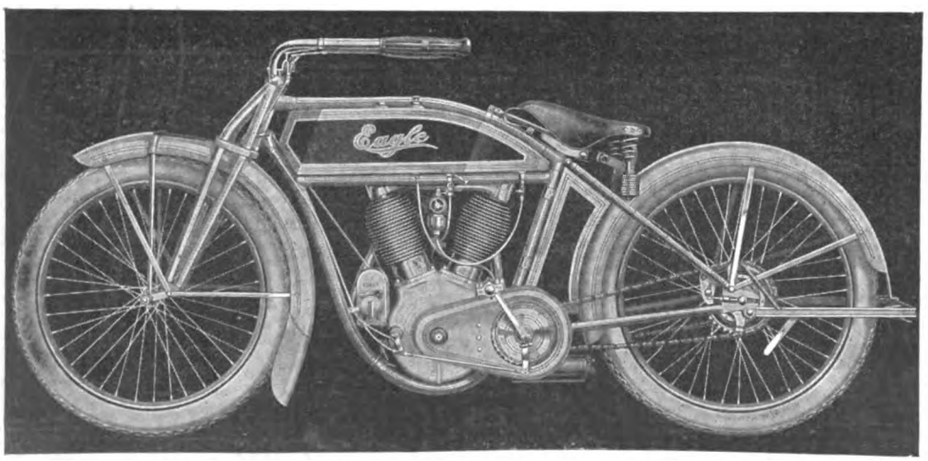

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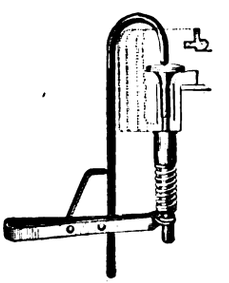

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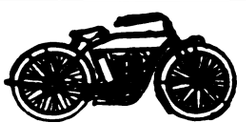

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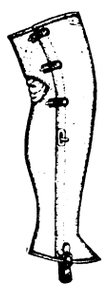

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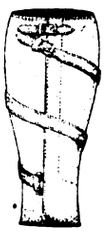

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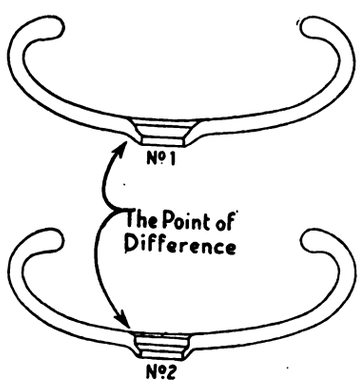

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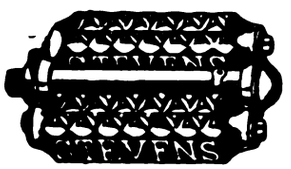

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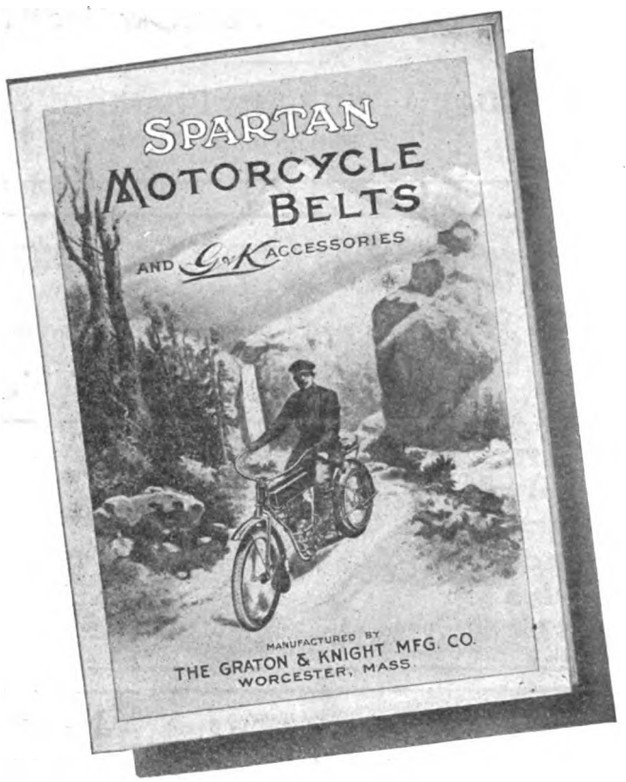

THE SPARTAN CATALOG FOR 1913 HAS TAKEN LIKE HOTCAKES

If you have not received your copy, send the coupon at once. There are still a lot left, though they are going fast.

Remember the Spartan Catalog for 1913 is the most practical and complete book of its kind ever offered. Handsomely illustrated in colors—fully describing the Spartan Belts and accessories.

It contains a valuable treatise on the proper care of motorcycle belts—also a logical discussion on motorcycle transmission.

In short, its 20 pages are chuck full of just that kind of information needed by every motorcycle rider.

Fill in and mail the coupon. Mail it now, your book will start by return mail.

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Franklin and Norfolk Streets, WORCESTER, MASS.

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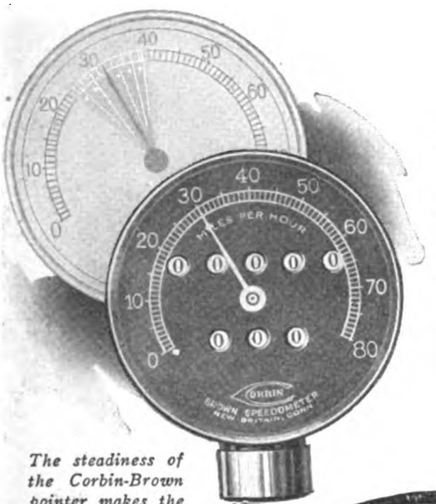

The steadiness of the Corbin-Brown pointer makes the oscillating, uncertain speedometer pointer an evidence of inferior construction.

Absolute steadiness of speed indicator is another advantage to be found in the

CORBIN-BROWN

SPEEDOMETER

"The Speedometer of Absolute Accuracy"

As a result it can be read correctly at a glance no matter how fast or over what roads you may be travelling.

The mechanism of the Corbin-Brown Motorcycle Speedometer is extremely simple.

Its centrifugal governor has four balance weights so sensitive that they respond to the slightest fluctuation in speed. Low speed is therefore recorded as accurately as high.

Every Corbin-Brown is calibrated by hand up to 80 miles, and is tested to absolute accuracy before it leaves the factory.

Write for catalog

AMERICAN HARDWARE CORPORATOIN

CORBIN SCREW DIVISION

285 High Street **New Britain, Conn.**

Branches: New York, Chicago, Philadelphia

Makers of the celebrated Corbin coaster brakes for bicycles and motorcycles

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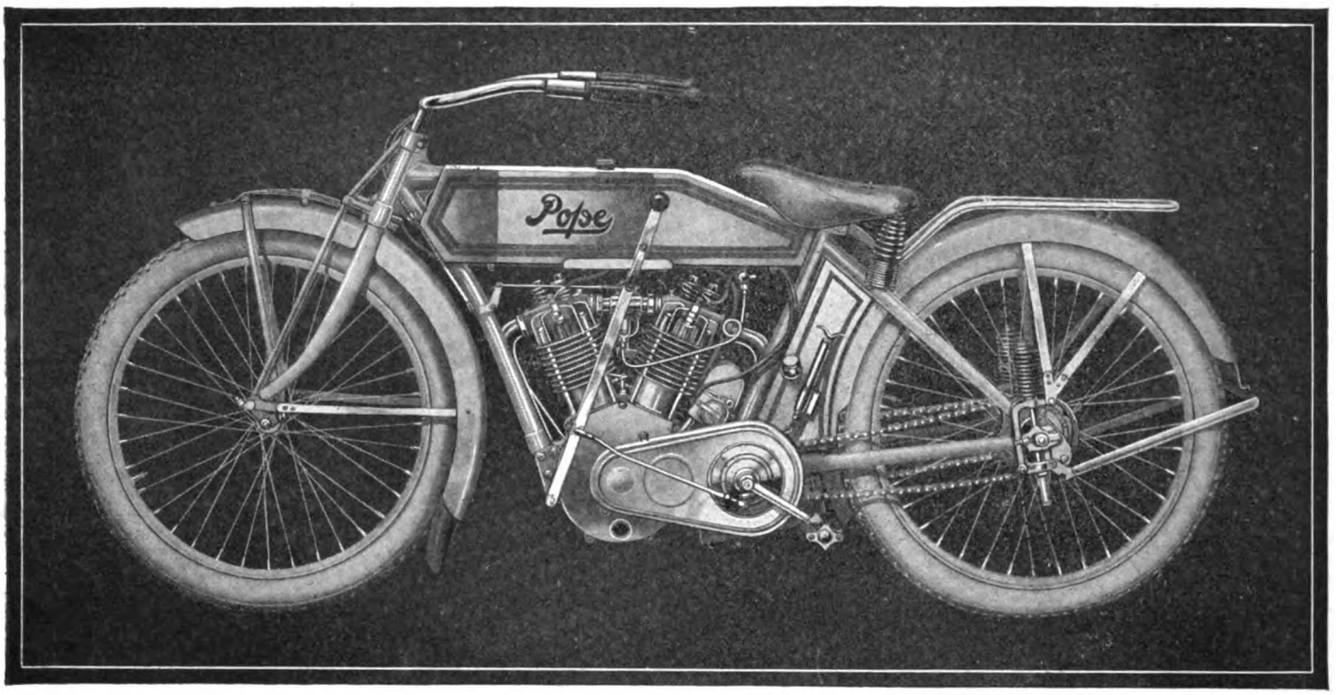
THE DOMINANT LINE AT THE SHOWS



Pope "Twin"—Has the only Shaft-Driven Magneto with double annular, adjustable ball bearings—No possibility of misaligning or cramping.

At New York and again at Chicago, the Pope Exhibit was the dominant center of interest and the busiest spot at both of these Shows. Dealers from all parts of the country decided then and there to pin their faith to the Pope Line, with its wide range of models and prices. Now that the Big Motorcycle Shows are over, we urge every dealer to consider the real reasons which underlie the Pope's Big Lead for 1913.

Pope Quality Pope Features Pope Prices

OVERHEAD VALVE MOTOR—MORE POWER. Parts more accessible—valve mechanism simpler and interchangeable.

POPE REAR SPRING SUSPENSION—Insures riding comfort without retarding speed. Holds wheel in perfect alignment. No side play. No recoil shock. Springs of different gauges to conform to varying loads. Convertible at any time to rigid frame with low center of gravity.

Compactness, Simplicity, Strength, Durability, Beautiful Lines

POPE LINE OFFERS GREATEST VARIETY OF MODELS AND PRICES:

MODEL L, "Twin" - - - - $250 **MODEL K, 4 H.P. (Belt Drive) $200**
MODEL M, 5 H.P. (Chain Drive), $215 **MODEL H, Lightweight - $165**

THE POPE MANUFACTURING COMPANY, Hartford, Conn.

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SPLITDORF

"Always There"

They've come; they've been seen; they've conquered!

Such paraphrasing of a famous remark is peculiarly applicable to the new SPLITDORF MAGNETOS—the sensational stars of the motorcycle firmament.

From the moment they made their appearance at the New York Show to their sensational reception at the Chicago Show—the wise motorcyclists did not overlook an opportunity of studying the newcomers.

There has been no doubt about the verdict, either. Equipment orders—dealers' demands and individuals' requests spell the unanimous voice of approval.

The newcomers are waterproof. No short circuiting troubles through rain and mud —no water, mud or waste oil can penetrate SPLITDORF MAGNETOS.

The best engineering skill has been devoted to the construction of these instruments to make them electrically efficient, aside from the all-important waterproof feature.

Windings have been made to insure the fat, live spark that, although retarded, makes the starting easy.

In other words, they are "there with the goods" and, as running mates to SPLITDORF PLUGS, make an IGNITION TEAM unbeatable for effectiveness.

There's no motorcycle PLUG, by the way, like the SPLITDORF, because it's the one plug made for motorcycle use.

"EU" Magneto—Front View.

If interested in any form of ignition for gasoline motors, just write in for our free literature. Our new catalog, our "Racing Record" or our "New Lights for Old" is yours for the asking. Do it TODAY.

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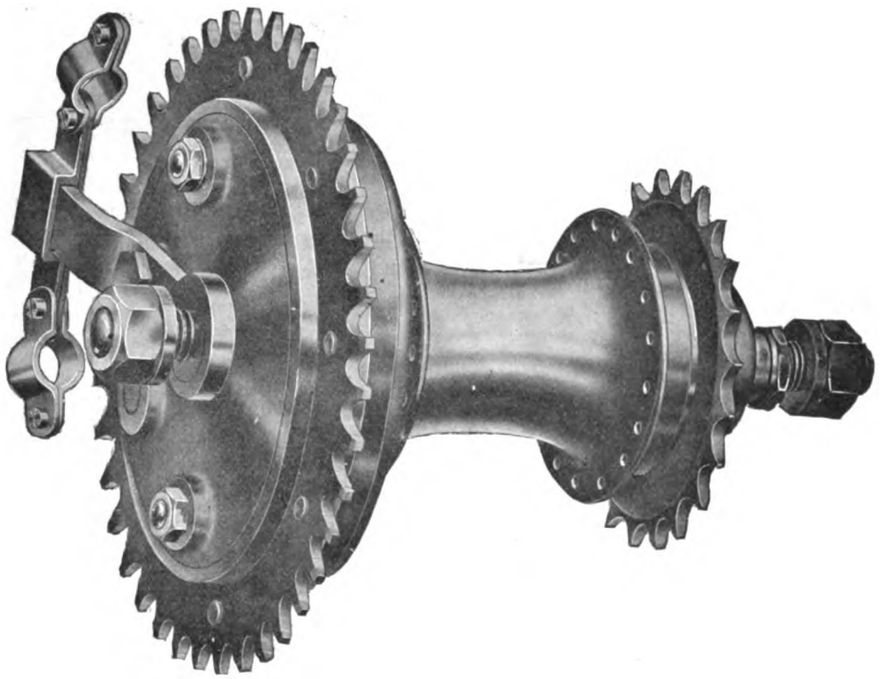

This Brake Was One of the Most Important Features of the Shows

It is exactly the same kind, type and design of a brake as is used in automobiles.

It is powerful enough to hold an automobile—or a motorcycle of several times the horse power of any now on the market.

It gives you everything the autoist has:—

Absolutely reliable control of your motorcycle under all conditions;—

Fool-proof—a brake that will not wind, bind or lock;—

A slight back pedaling pressure will exert a retarding force of a ton and a half.

You surely want to know about this newest motorcycle device.

Write for fully illustrated and descriptive literature.

The New Departure Mfg. Co. Bristol, Conn.

COASTER BRAKE LICENSORS

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Thor

We Don't Assemble Motorcycles We Build Them

THERE is a vast difference between a motorcycle that is merely an assembly of good accessories and a machine that is **built**; that contains in its construction the character, the brains and the ingenuity of the men behind it. The prospective buyer should look beneath the mere surface indications of quality. He must probe until the vein of quality either "peters out" or broadens into the "mother lode" of real "class." If it is the latter, he can safely buy.

The Thor Has Individuality

We believe in keeping every detail of the THOR'S construction under our personal supervision. The value of this policy has been and is proven every day by its absolutely perfect service—the result of proper coordination of parts.

Thor Parts Prevail

The THOR motor, with its roller bearing connecting rods, mechanical **overhead** intake valves with THOR ball and socket joints; the THOR carbureter, with its improved twin air adjustment and butterfly valve; the famous THOR undergeared direct chain drive; the THOR ball-bearing free engine clutch, continually running in oil; the THOR mechanical force feed pump, oiling crank case direct, and last but not least, the THOR two-speed gear—these characteristics give the THOR clear title to its name.

Prompt Deliveries

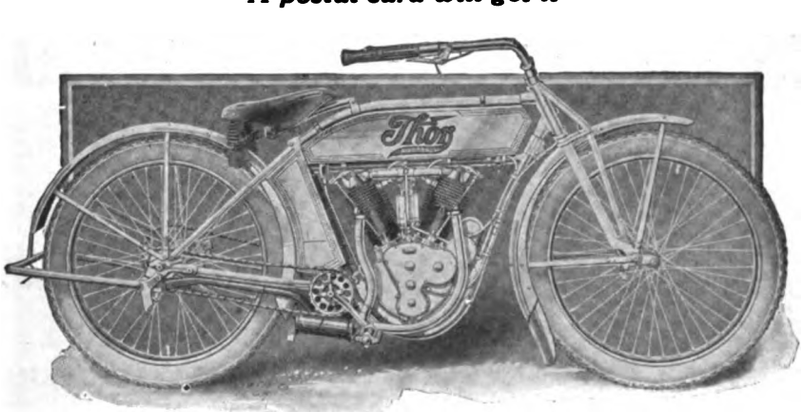
With past experiences ever before us, we have continually been shaping our organization toward that much-sought-after quality, "EFFICIENT SERVICE TO DEALERS." We have now reached our goal. We can **positively** guarantee the delivery of THOR motorcycles on dates specified by our dealers. The wise dealer will appreciate what this means.

The Thor Line

Comprises Model 13-M, 4 h. p. single at $225; Model 13-W, a five h. p. single at $240, and Model 13-U, a seven h. p. twin at $290. Two-speed and two-speed control for any of the above machines, $40 extra.

Our Catalog goes further into detail
A postal card will get it

Aurora Automatic Machinery Co. Thor Bldg.



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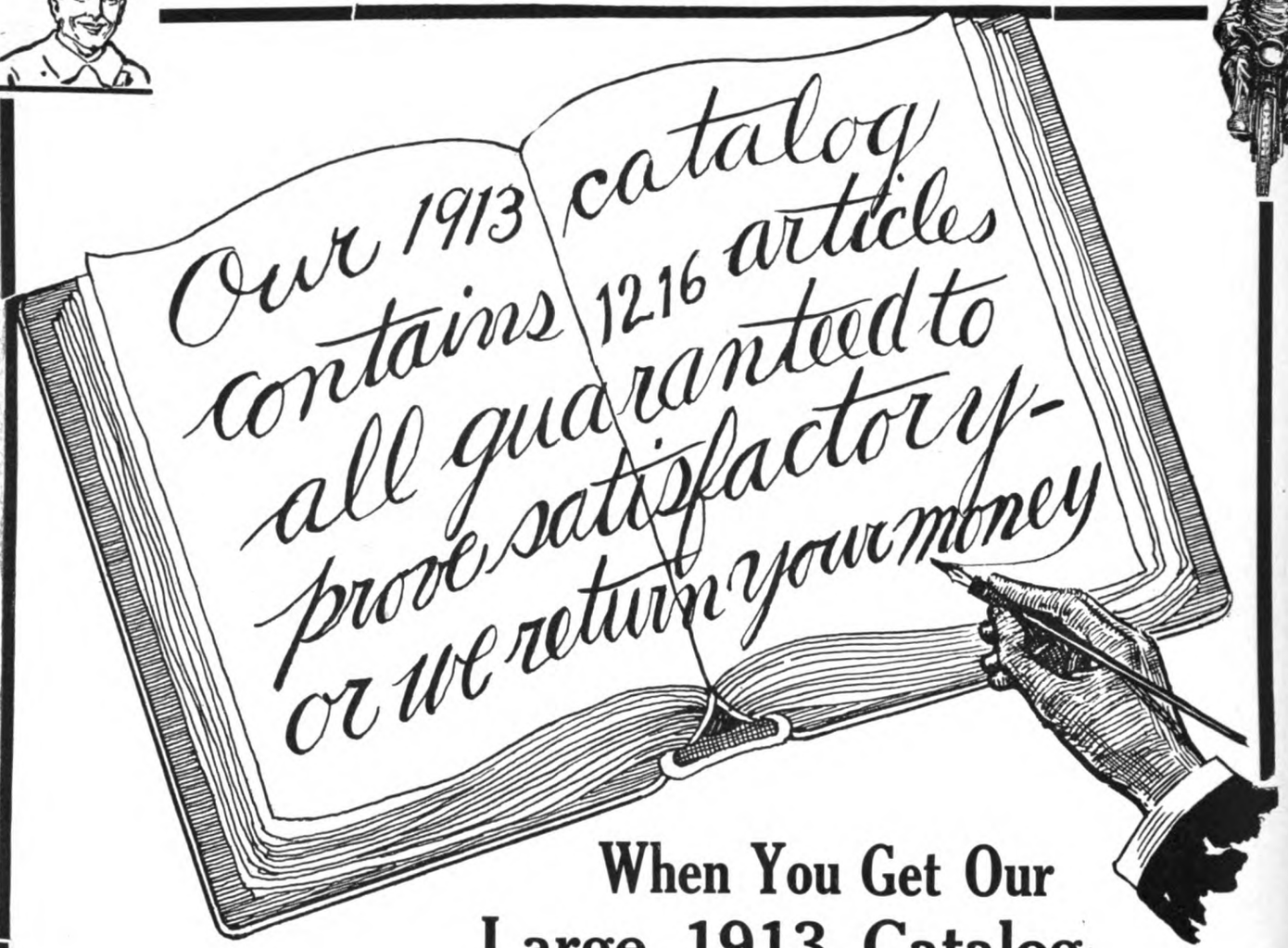

When You Get Our Large 1913 Catalog

you get a valuable piece of literature. It is not only a complete list of every article **of merit** made for the motorcycle rider but it is also a valuable reference book.

Our $20,000 stock enables you to order anything you may need, from a spoke to a magneto, with the absolute certainty of its being shipped to you PREPAID THE SAME DAY THE ORDER IS RECEIVED and with the added assurance that your money is not ours until **you are satisfied.** In buying

MECO GUARANTEED SUPPLIES

you will get quality goods, plus prompt prepaid delivery, plus absolute satisfaction.

ORGANIZED 1904. INCORPORATED 1910

MOTORCYCLE EQUIPMENT CO.

LARGEST MOTORCYCLE SUPPLY HOUSE IN AMERICA

HAMMONDSPORT, NEW YORK.

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82%

Bosch—Of Course

OF the 77 motorcycles exhibited at the Chicago Motorcycle Show, 63 were Bosch-Equipt. In other words: 18 of the 24 makers represented, regularly employ Bosch magnetos for the required perfect ignition; the six that were left were divided between two other makers of ignition devices.

No re-arrangement of figures can be made, no other viewpoint can be taken, that could make less prominent the superiority of Bosch magnetos. They have earned their position by consistent success in every field they have entered; no gas engine accessory is conceded the universal recognition accorded to Bosch.

The leading motorcycles of the world are Bosch-Equipt —Be sure that yours is, and likewise remember that

Bosch Plugs Are As Good As Bosch Magnetos

Write today for "Locating the Spark Plug" it tells you all you should know about Plugs

Bosch Magneto Co., 206 West 46th Street, New York

CHICAGO DETROIT SAN FRANCISCO TORONTO

Official Distributors in all Important Centres

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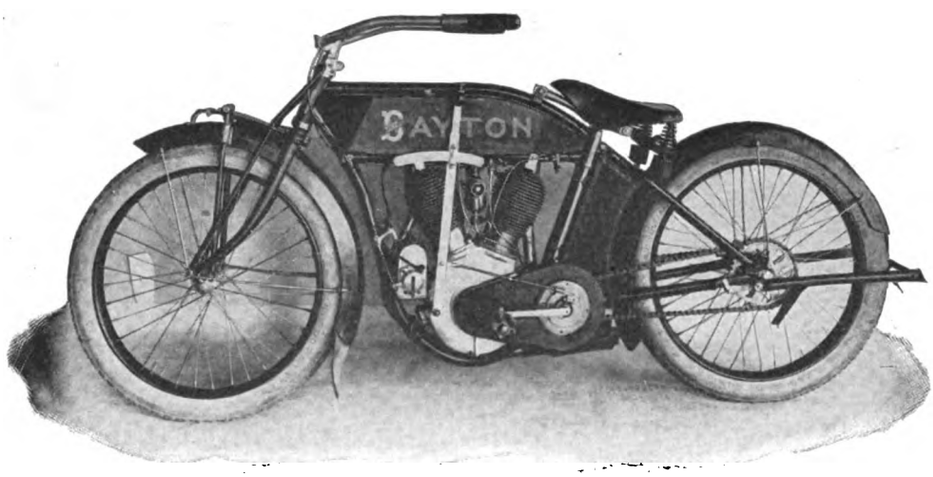
DAYTON

Are You Prepared to Meet The Demand for DAYTONS?



The time when active deliveries of motorcycles will be made to the rider is fast approaching.

In almost every town in the country there is a Dayton Agent now making deliveries or only waiting for Spring to open up.

These dealers are prepared to handle the **strong demand** for Daytons.

How About Yourself?

The riders want the Dayton, and if there is no Dayton Agency in your town, why not handle this demand yourself?

Our mammoth factory is making large shipments of motorcycles every day.

Better get your orders on file.

The Davis Sewing Machine Co.

(MI)

THE DAVIS SEWING MACHINE CO., Dayton, O.

I am a motorcycle dealer and interested in your DAYTON proposition. Send me particulars.

Dealer's Name .....

Street Address .....

City .....State .....

Dayton Ohio

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DAYTON

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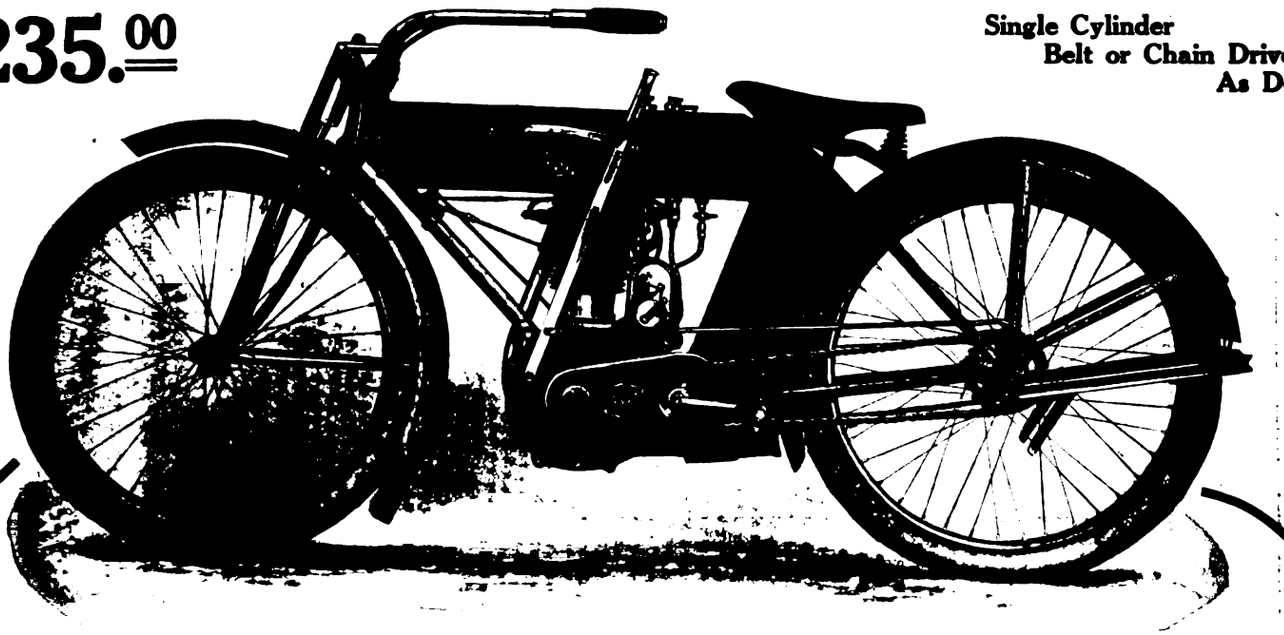
$235.00

Single Cylinder
Belt or Chain Drive
As Desired



The "Black Hawk" Stands Rigid Examination

Hundreds of Dealers, Thousands of Riders, at the Chicago Show, Gave the "Black Hawk" the Most Minute Inspection, the Most Unsparing Scrutiny—the Result Showed that We Underestimated Rather Than Overstated the Merits of Our Machine

Every feature of this 1913 marvel of motorcycle construction received most favorable comment. Old-timers in the business acknowledged the "Black Hawk's" superiority.

Others admitted that the "Black Hawk" is more than a good motorcycle, more than a high-grade motorcycle—in fact, that it is the best "buy" on the market.

Big dealer connections were made during the show week, and from all appearances, the "Black Hawk" is destined to become one of the most popular of all motorcycles.

Great Opportunity for Other Dealers

We have some choice territory yet unassigned. If you care to handle a motorcycle that you can sell with the knowledge that it will give the utmost in service and prove satisfactory always, we shall be pleased to hear from you.

Dealers will have orders for our machines as fast as we can deliver them. Our liberal contract terms and proposition has met with great favor with the trade. Write us for agency and we'll lay our plans bare before you.

To Riders

If you did not attend the show or see the "Black Hawk" demonstrated, send for our handsome catalog, which fully describes our belt and chain drive models.

After you read the mechanical details and see wherein the "Black Hawk" is two years ahead of its rivals, you will decide in its favor.

Write us today and we'll inform you the name of the nearest dealer where you can see the "Black Hawk." Address Dept. B.

TRADE MARK

BLACK HAWK

BLACK HAWK MOTOR CO., Dept. B, Rock Island, Ill.

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300-PAGE CATALOG

OUR 1913 Catalog contains the biggest and most complete line of Motorcycle Supplies, Bicycles, and Bicycle Supplies in the business today. We have the stocks to back it up with and all orders are shipped immediately. Compare our prices and you will give us your business.

Catalog sent to dealers only. Write for it now on your letterhead, or enclose business card.

Motor Car Supply Company

1451-1453-1455 MICHIGAN BLVD.

C H I C A G O

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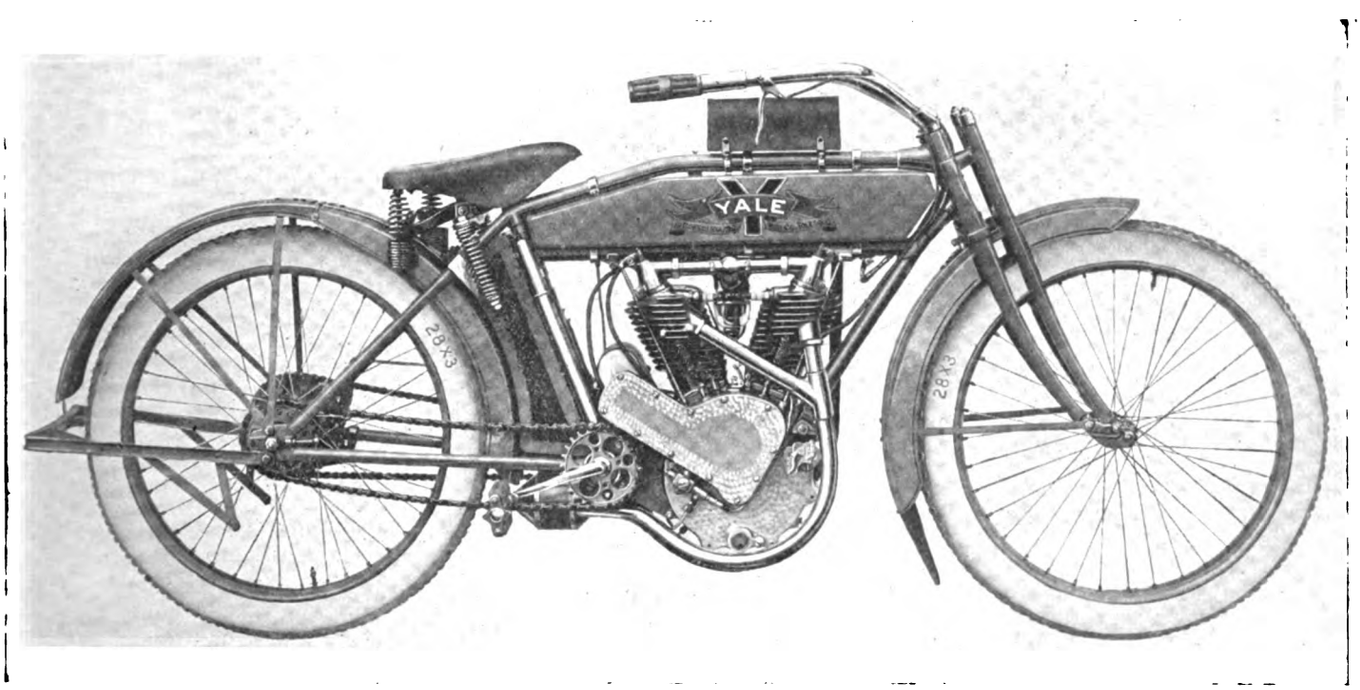
YALE

Interest That Meant Business

YALE motorcycles were the center of more real interest than any other display at the Chicago Show. Real interest—dealers with an eye to 1913 business success, and riders who want to lead on the road—not mere curiosity and a desire to look at new experiments and freak ideas.

Mechanical excellence, the combination of the best known to motorcycle designers and the elimination of mistakes found in other machines, concentrated on the "Big Y" the attention of the men who know what a motorcycle should be.

Comparison with the other mechanical features, as well as with sales policy, advertising work, and helps for agents that were offered by other machines, emphasized the superiority of the Yale way.



THE fastest road machine made, the big Yale twin. Its super-efficient motor, 60.92 cubic inches displacement, gives 9.2 real horsepower at the rear wheel, where the power does work. More speed than any rider dares turn wide open on the average road, and its low center of gravity, perfect balance and ease of steering allow it to be ridden safely at higher speed than other machines under all conditions. Three-inch tires, Y-A shock absorber and Yale cushion fork give luxurious comfort and relieve rider and machine from strain of road jars. Separate tanks holding three gallons of gasoline and a gallon of oil. Footrests with auxiliary brake lever. **$275**

CONSOLIDATED MANUFACTURING CO., 1730 Fernwood Avenue Toledo, Ohio

Eastern Representative, F. C. Cornish, 219 Clinton Ave., Newark, N. J.
California Distributor, Los Angeles Motorcycle Co., 843 S. Spring St., Los Angeles.

Makers also of Yale and Snell Bicycles, Hussey Handlebars, Brazed Tubing, Bent Parts, and Drop Forgings of Every Description

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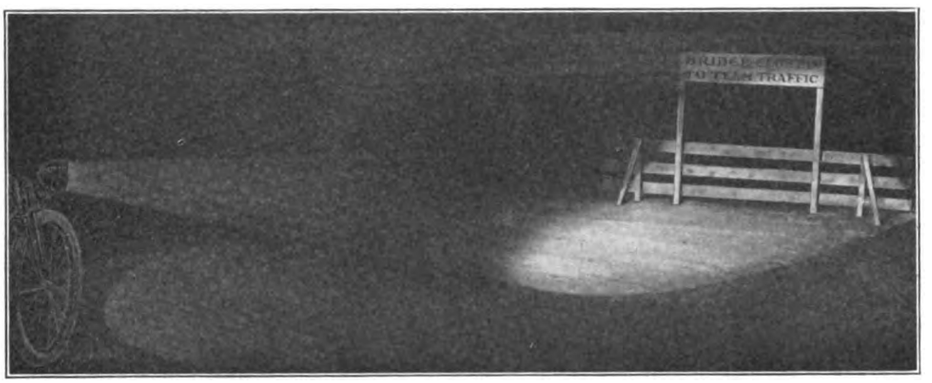
GENOLITE

The Only Complete Electric System for Motorcycles

GENERATOR **GOVERNOR** **STORAGE BATTERY**

An Actual Photo-graph



Demonstrating a "Genolite" in Action

The One You Have Been Waiting For

Why are our cities electric lighted?
Why are 90% of our automobiles electric lighted?
Because they want the best light at the least cost.

Why buy a 1913 model motorcycle which in every way fulfills your dream—the one you have been waiting months for, and then equip it with a lighting system as of 1903, 10 years behind the time?

The "GENOLITE" is not simply a headlight. It is a lighting system identical in principle with those installed in the highest grade automobiles, which throw a light a quarter of a mile in front of them.

The "GENOLITE," being adapted to use on a motorcycle, is smaller and simpler—throwing a straight shaft of white light 500 feet ahead.

With the "GENOLITE" the light is always the same, no matter how fast or how slow you travel. It is mechanically governed and absolutely controlled.

"GENOLITE" means a perfect electric generating plant that is small enough to be mounted on a motorcycle and yet strong enough to operate anything you wish to put on your machine—headlight, tail-light, speedometer light, trouble light, or horn—all at one time if need be, either when standing or when riding.

Send a post card for our descriptive booklet, and if your dealer does not handle it, order from us direct.

Mr. Dealer: Get in line before the line gets too long for us to reach you

Hughes-Wessling Company, 1774 Leland Avenue, Chicago

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The Sign of Big Business

Agent for the Emblem

The Longer You Wait The Smaller Your Chance to be an Emblem Dealer

STEP LIVELY, PLEASE! Yes, we mean YOU, Mr. Dealer! Don't delay! You're in **wrong** if you neglect this chance to become the biggest and most popular motorcycle dealer in your town. Act on that impulse! You KNOW you admire the EMBLEM, its performances, its sterling reputation and its Q-U-A-L-I-T-Y.

Don't wait to realize what you've missed when you see the other fellow raking in the shekels with both hands! Act now! **Before** it's too late!

"Procrastination is the thief of time." Time is money. In this case it's up to you to act quickly. So

GO TO IT!

THE EMBLEM LINE

SINGLE

Battery or Magneto, Belt Drive, 38.3

$175 $200

TWIN

67., Magneto	76.6, Magneto
$275	**$300**

EMBLEM MANUFACTURING CO.

ANGOLA

ERIE COUNTY, N. Y.

EMBLEM MFG. CO.
ANGOLA, N. Y.

Here's my name and address. SHOW ME.

Name .....

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Gale's Pr
Belt

You are familiar with "Emblem" Scout. Of al specialties better than n

Mr. Gale did not use a belt-driven machine on his two recent trips.

Yet his experiences have brought about this remarkable testimonial in favor of the belt, regardless of the fact that he used the chain transmission. Mr. Gale is from old York State, not Missouri—yet now he has been "shown."

Sooner or later you yourself will come to the firm realization that the belt is absolutely the best.

Likewise will you come to Spartan Belts. Mr. Gale, by the way, will continue to use Spartans.

In our belt talks we have presented the belt from almost every angle.

We go so far as to say that if you want excessive speed, buy a chain driven machine.

But if you want low cost of upkeep, satisfaction, service and the highest efficiency, buy a belt driven machine.

As to which belt, we tell you to look around, make comparisons, read our letters from "men who know."

Now that the shows are over you will have ample time.

Write us today for our newest booklets. Learn the facts which have placed Spartan Belts on 90% of all 1913 belt-driven machines.

THE GRATON & KNIGHT MFG. CO., Worcester, Mass.

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ference Is for the Transmission

great trips made by Mr. M. E. Gale, the famous men, Mr. Gale is in a position to know equipment anyone. Please read what he says about belts.

Angola, N. Y.

THE GRATON & KNIGHT MFG. CO., Worcester, Mass.

Gentlemen:—I have learned a great deal about motorcycling by reading and profiting by the other fellow's experience.

And as a long distance rider, I feel sure that I can add something that will prove beneficial to other riders.

As you know, I rode on my "Emblem" from Angola, N. Y., to New York City to attend the show. For the same purpose, I rode also from Angola, N. Y., to Chicago, Ill.

On the first day of the first trip I drove through rain, sleet and over icy roads to Le Roy, N. Y. On the next day, I bucked the snow drifts to Syracuse. The next day, I rode to Schenectady.

I arrived in New York, Wednesday night, after hard going over rough, rutted roads. The total distance covered was over 500 miles. The Chicago trip was even more difficult. Now, it's not often that a man would make a similar trip or even have the inclination. But the point is this: The matter of transmission seems to hold the center of the motorcycling stage right now. You say, "There can only be one best, and that one best is the belt form of transmission." And I agree with you and it is for that reason that I am writing you.

On the two aforementioned trips I used a chain driven machine. For three years previous, I had always used a belt. But I used the chain on these trips, thinking I would get better results than with the belt.

But my preference now, after these experiences, is for the BELT.

I know you have hundreds of letters praising Spartan Belts and telling of experiences, but I really think my experience is different and still further serves to substantiate the claims you have so consistently stood for.

Yours very truly,

M. E. GALE.

SPARTAN BELTS

The Economical, Comfortable, Efficient Transmission

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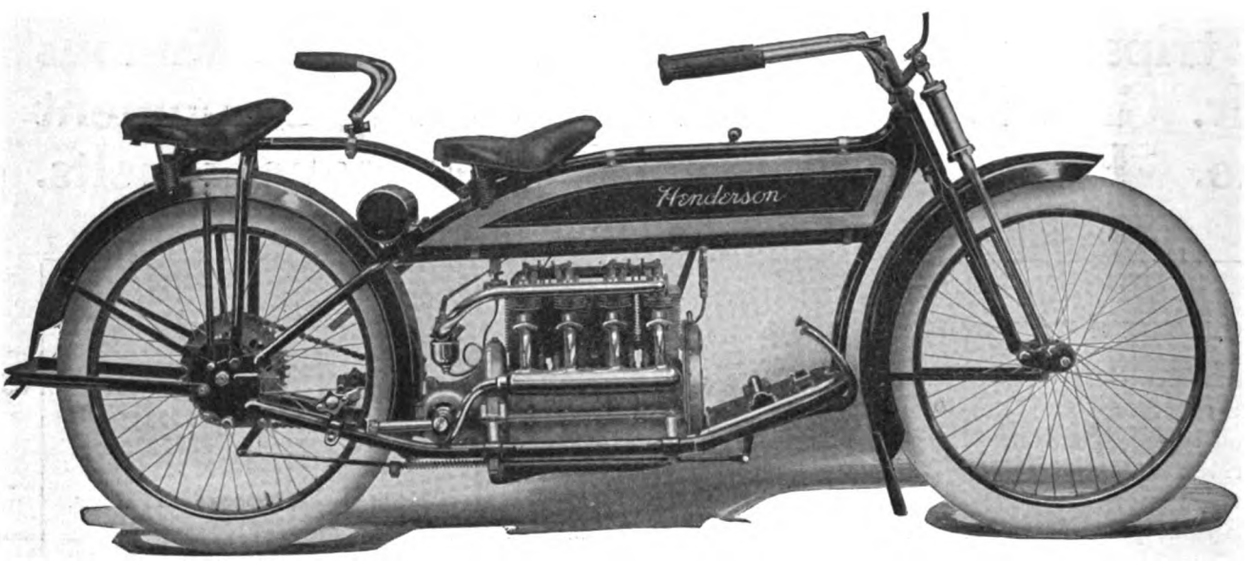
Every Henderson Dealer
Is Going to Have a Good Season



The 1913 Henderson 8-65, 8 H.P., 4 cylinders, free engine, chain drive, $325.

This is a positive assurance—not our say so, but an assurance based on a sound and substantial demand.

If you watched the trend of buyers' minds last year, you saw many turn from the ordinary machine to the quiet, powerful, comfortable Henderson. The number of these buyers was limited only by the number of machines we built.

This year the same thing will happen and on a larger scale.

So the Henderson presents an opportunity without parallel to the wise and wide-awake dealer.

Get in touch with us at once.

Henderson Motorcycle Co., 1158 Gase Avenue, Detroit, Mich.

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Prest-O-Lite
For Motorcycles

"Wouldn't ride at night without it"

That's what every experienced rider says about Prest-O-Lite. You know, if you've ever tried to do any road work at night that the oil lamp won't do. Small carbide lamps are but little better.

But with a Prest-O-Lite Tank and a lamp big enough you can tour safely any time and anywhere. You have a brilliant, dependable light that turns on and off like a gas jet.

Money Invested

Regard the money paid for a Prest-O-Lite Tank not as money spent,—but as money invested. It's extra insurance against accident. And, besides, a Prest-O-Lite Tank never gets to be second-hand. It can always be sold for about what it cost, owing to the universal use and demand. Exchanges cost little—never more than the carbide to feed a generator—and in most cases less.

$10

Try Prest-O-Lite for 30 days at our risk

You need Prest-O-Lite to make your night riding pleasant and safe. So that you can see how much you gain by it, we want to have it on your machine for 30 days' trial. Then if you decide you can do without Prest-O-Lite, the trial won't cost you a penny. Fair enough, isn't it? We want every rider who isn't using Prest-O-Lite to take advantage of this offer. Write for booklet and plan today.

The Prest-O-Lite Co. 246 East South Street Indianapolis, Ind.

CANADIAN GENERAL OFFICE AND FACTORY, MERRITTON, ONT.

Exchange Agencies Everywhere

TO DEALERS—It's a poor idea to train your customers to going elsewhere for Prest-O-Lite Exchanges. The other dealer may sell them other things as well.

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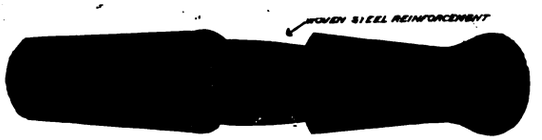
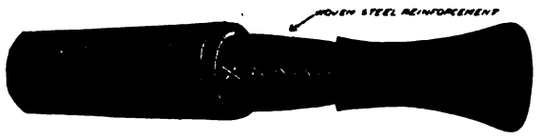
WOVEN STEEL REINFORCED GRIPS



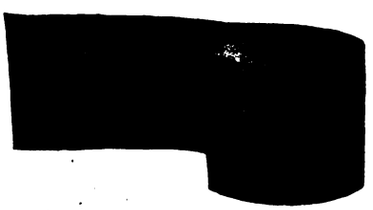
Regular Motorcycle Type



No. 100 Corrugated Type

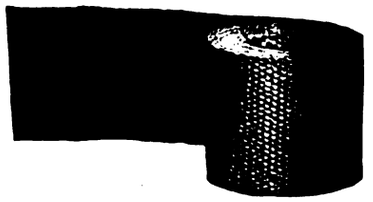
CONTINENTAL-ERIE Woven Steel Reinforced Grips are the only grips made that are ABSOLUTELY INDESTRUCTIBLE. The Woven Steel Reinforcement in the center part of the Grip strengthens it at its weakest point and prevents it from breaking. In addition to the steel reinforcement, our Grips have an inner lining of fabric which makes them as pliable and as resilient as any other grip on the market. These are made to fit all makes of machines.

When ordering your 1913 machines, specify these Grips and thus avoid replacements.



TRADE
NON-SLIP-LAG
MARK

The only pulley lining on the market that gives entire satisfaction, prevents belt from slipping, increases power, applied without removing belt or wheel. Carried in stock by all jobbers and dealers.



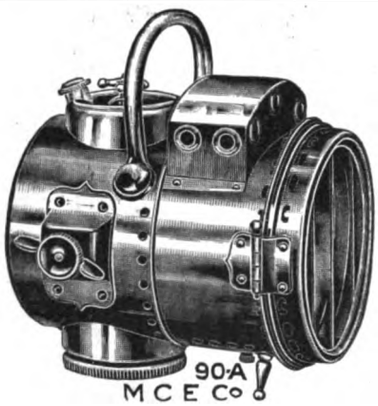
CONTINENTAL RUBBER WORKS - Erie, Pa.

BRANCHES

NEW YORK
35 Murray Street

CLEVELAND
1551 Columbus Road, N. W.

CHICAGO
180 No. Market St.

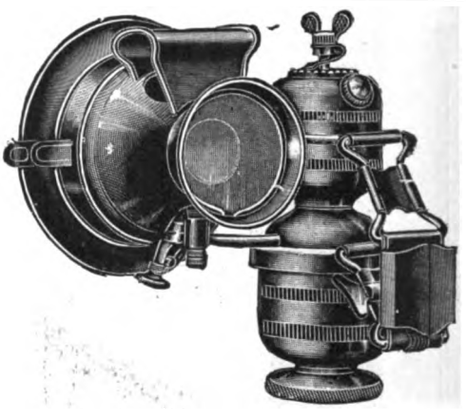


An Ideal Motorcyclist's Lamp. A "Close Coupled" Searchlight and Generator Combined. Weighs 28 ounces; size, 4 x 5 inches. Nickel Plated, Neatly Designed. No. 90 rear prop; No. 90A, side props.

Price $6.00 each

Dealers! Your Attention Please!

Do you realize that our enormous stock of high-grade automobile, motorcycle and bicycle supplies is **entirely** at your disposal? That not one penny's worth is sold to the rider direct? Consider what this means to you. Here are two stunning successes any dealer can handle with amazing results.



Duplex "Self-Lighter" Lamp

The law in most States requires rear lights on bicycles and motorcycles. The combination Duplex MEETS THIS REQUIREMENT. It lights up the road in front of the rider and also shows a RED LIGHT WARNING SIGNAL in the rear. This lamp is finished in nickel, has a flare-front door 4½ inches across and is fitted with a compact generator 2¼ inches in diameter. Height of lamp 5½ inches. This lamp attaches to fork on left side of wheel.

Price $3.00 each

Tear this out →

I am a dealer and want to be placed on your mailing list.

Name .....

Address .....

← Tear this out

The Motor Car Equipment Co.

55 Warren Street New York, N. Y.

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The Line Forms on This Side →

Add your name to the already large list of dealers who were literally "electrified" by our announcement that we were about to place on the market the

KECO

AN ELECTRIC MOTOR-CYCLE HORN

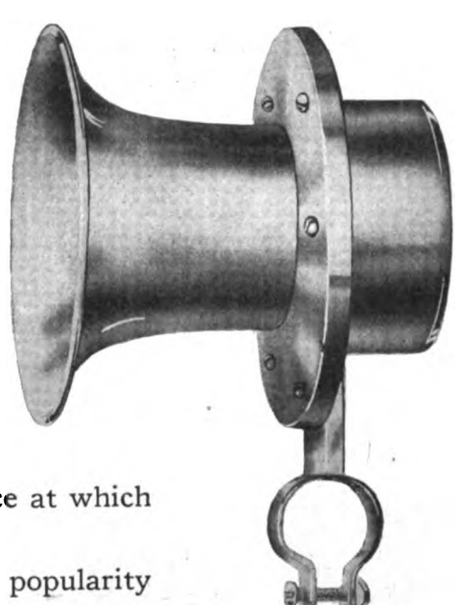
Price $3.50

Ready for delivery April 1.

Finished in Brass and Black Enamel.

Attaches to Handlebar.

Complete with Push Button and Wire.



CONSIDER the remarkable price at which this horn will be sold.

CONSIDER what tremendous popularity the KECO is bound to enjoy.

THEN sign the coupon below. You'll get the preference in deliveries if you are keen enough to anticipate the demand. We positively assure you that the KECO will make the biggest noise you ever heard, in more than one way.

GEORGE W. SHERMAN

Distributors for the United States

76 Blaine Ave. Detroit, Mich.

MANUFACTURED BY THE

KOSMAK ELECTRIC CO. Jersey City, N. J.

DEALERS' COUPON

Place me on your mailing list for catalog and other literature covering the KECO.

Name .....

Address .....

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United States Tires

First

First

First

First

First

in point of equipment on motorcycles at the

Chicago Show

51% equipped with United States Tires

49% divided between 5 other makes

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MOTORCYCLE ILLUSTRATED

51 CHAMBERS STREET NEW YORK CITY | THURSDAY, FEBRUARY 20 | TEN CENTS A COPY ONE DOLLAR A YEAR

READY FOR FIRST LECTURE MEETING

Director Sauer will Open Transcontinental Tour with Session in Baltimore, February 27

THANKS to hearty and enthusiastic local co-operation all along the line, indications favor a successful trip for Chairman J. Leo Sauer, of the F. A. M. National Committee on Legal Action, who will inaugurate an F. A. M. transcontinental lecture tour and membership campaign with a meeting at the Maryland Automobile Club's headquarters in Baltimore, Thursday evening, February 27. Director Howard French, State Commissioner Wood and other officials and members of the Baltimore M. C. have practically completed arrangements for the Baltimore meeting. Preceding Mr. Sauer's address, there will be an interesting program of entertainment, and, according to those in charge, there will be a big turnout of F. A. M. members and other riders to give the Legal Action Chairman a rousing send-off.

The second meeting will be held in Washington on Friday, February 28, under the auspices and at the headquarters of the National Capital M. C. The third meeting, originally scheduled for Richmond, will be held instead in Norfolk, Saturday, March 1, arrangements for the same being in charge of F. Eph Ball.

BIG MEETINGS ASSURED.

Good meetings are assured at Savannah, Atlanta and Birmingham, on Tuesday, Wednesday and Thursday, March 4, 5 and 6, respectively. It will be noted that changes have been made in the dates for which these three meetings were originally scheduled. Next in order will be Oklahoma City on Saturday, March 8, Dallas (including Fort Worth) on Monday, the 10th, and San Antonio on Tuesday, the 11th.

Mr. Sauer will arrive in Los Angeles on March 14. Arrangements are under way for a big meeting in that city on Sunday, the 16th. On Thursday, the 20th, the traveling Director will address a meeting of the San Francisco Club, and on the 24th and 25th inst. meetings in Portland and Seattle. Spokane is scheduled for Wednesday, March 26, Salt Lake City for Friday, March 28, and Denver for Sunday, the 30th. For Wednesday, April 2, a meeting is being arranged in St. Louis.

A Winter Scene in Northern Ohio.

Clubs Give Enthusiastic Co-operation and Show Lively Interest in Contests for F. A. M. Cups

MEETING OF F. A. M. DIRECTORS.

Mr. Sauer will report to the Directors in Chicago on Thursday, April 3, when a special meeting of the Directorate will be held in the Auditorium Annex. Arrangements for a meeting under the auspices of the Chicago Club either Friday, April 4, or Saturday, April 5, are already well under way.

Mr. Sauer will return to New York April 7, and remain there until the 13th. In the meantime he will address a meeting held under the auspices of the Invincible Club, of Brooklyn, a joint meeting of the New York clubs and any other meetings which may be arranged by clubs in lower New York, upper New Jersey or Connecticut. He will resume his schedule on Monday, April 14, with a meeting in Hartford, succeeded in the following order by meetings in Boston, Syracuse, Rochester, Buffalo, Cleveland, Detroit, Milwaukee, Indianapolis, Louisville, Columbus, Pittsburgh, Philadelphia and Newark.

CHANGES IN SCHEDULE.

It has been found necessary to make a number of changes in the schedule as originally published, and the correct schedule is printed herewith. It should be noted that the date of the Savannah meeting has been changed from March 3 to March 4, that of Atlanta from March 4 to March 5, and that of Birmingham from March 5 to March 6. The Dallas meeting will be held on the 10th, instead of the 11th, and the one in San

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Antonio on the 11th instead of the 12th; El Paso and Tacoma have been taken off the schedule, and Fresno and Spokane added. The Seattle meeting will be held on March 25, instead of the 26th, and the Milwaukee meeting on April 22, instead of the 8th. The dates of the meetings in the following cities have been advanced one day, as follows: Detroit, April 21, instead of the 22nd; Columbus, April 25, instead of the 26th; Pittsburgh, April 26, instead of the 27th; Philadelphia, April 28, instead of the 29th; Newark, April 29, instead of the 30th.

PAMPHLETS DISTRIBUTED.

Several thousand pamphlets for local distribution among those likely to be interested have been printed, descriptive of the objects of Mr. Sauer's trip and giving the complete itinerary. Copies of these pamphlets may be obtained by writing either to Mr. Sauer, at 51 Chambers street, New York City; Secretary-Treasurer G. B. Gibson, of Westboro, Mass., or Chairman E. M. Estabrook, of the Membership Committee, of Bangor, Me.

The pamphlet recites that at a meeting held in New York January 15, the Board of Directors of the Federation of American Motorcyclists adopted a resolution authorizing one of its members to make a tour of the important motorcycle centers in the United States:

1. To interpret the Constitution and By-Laws of the F. A. M. and explain the administration of the affairs of the National body;

2. To get into intimate touch with F. A. M. Officials and Members in all parts of the country, ascertain their wants and report the same to the Directors;

3. To give hearings on matters concerning the Federation, its Officials and Members, with a view to making adjustment of any matters concerning which there may be differences of opinion;

4. To point out the way to the proper organization of State governments and demonstrate how local Officials and Members are in position to benefit by co-operating with the Directors and the Chairman of the National Committees;

5. To conduct a National Membership Campaign.

TWO CUPS FOR CLUBS.

Mr. Sauer wishes to call particular attention to the fact that two handsome silver loving cups will be awarded by the National body, as follows:

One cup to the city contributing, upon Mr. Sauer's arrival there, the largest number of paid new memberships. Every F. A. M. member attending one of these meetings is urged to bring at least one non-member, prepared to hand in his membership. A second cup will be awarded to the city in which the meeting is best attended. In measuring the attendance, the Directors will, instead of simply considering the number of those present, base their award upon the percentage the attendance bears to the F. A. M. membership in each city on the first of March. In other words, in a town having an F. A. M. membership of 100 and showing an attendance of 200 at the meeting, a percentage of 200 will be given. The cup will be awarded to the city having the largest percentage according to this method of computation. This gives the smallest town on the schedule an equal opportunity with the largest.

THE COMPLETE ITINERARY.

Up to February 27, Mr. Sauer may be reached at 51 Chambers street, New York, and thereafter, according to date, at the hotels named on his schedule, which will be as follows:

City.	*Date.*	*Hotel.*
Baltimore	Feb. 27	Emerson
Washington	Feb. 28	Raleigh
Norfolk	Mar. 1	———
Savannah	Mar. 4	De Sota
Atlanta	Mar. 5	Piedmont
Birmingham	Mar. 6	Hillman
Oklahoma City	Mar. 8	Lee Huckins
Dallas	Mar. 10	Adolphus
San Antonio	Mar. 11	Gunter
Los Angeles	Mar. 14	Alexandria
Los Angeles	Mar. 15	Alexandria
Los Angeles	Mar. 16	Alexandria
Los Angeles	Mar. 17	Alexandria
Fresno	Mar. 18	———
San Francisco	Mar. 19	Palace
San Francisco	Mar. 20	Palace
San Francisco	Mar. 21	Palace
Portland	Mar. 24	Multnomah
Seattle	Mar. 25	Washington
Spokane	Mar. 26	Spokane
Salt Lake City	Mar. 28	Utah
Denver	Mar. 30	Albany
Denver	Mar. 31	Albany
St. Louis	Apr. 2	Jefferson
Chicago	Apr. 4	Auditorium Annex
Chicago	Apr. 5	Auditorium Annex
New York	Apr. 7-13	51 Chambers St.
Hartford	Apr. 14	Heublein
Boston	Apr. 15	Lennox
Syracuse	Apr. 16	Onondago
Rochester	Apr. 17	Rochester
Buffalo	Apr. 18	Lafayette
Cleveland	Apr. 19	Hollenden
Detroit	Apr. 21	Statler
Milwaukee	Apr. 22	Pfister
Indianapolis	Apr. 23	Claypool
Louisville	Apr. 24	Seelbach
Columbus	Apr. 25	Chittenden
Pittsburgh	Apr. 26	Fort Pitt
Philadelphia	Apr. 28	St. James
Newark	Apr. 29	The Broad

THE CANADIAN MARKET

LETTER OF WELL-KNOWN TORONTO FIRM GIVES FIGURES TO PROVE THAT PREFERENTIAL DUTY ON MOTORCYCLES IMPORTED FROM ENGLAND REALLY AFFORDS THEIR AGENTS LITTLE ADVANTAGE IN HANDLING THE MACHINES—HOW THE SALES SYSTEM WORKS OUT.

FROM time to time there is new evidence that American motorcycles are making rapid inroads on the Canadian market, and students of trade conditions over the border will be interested accordingly in a recent statement by the Tangent Cycle Co., of Toronto, which was prepared with a view of explaining the growing popularity of motorcycle products from the States, as against the importation from England. The fact that American manufacturers are called upon to pay a duty of 30 per cent. on machines shipped into Canada, as against the 22½ per cent. preferential duty imposed on motorcycles brought in from England, leads to the conclusion that American shippers labor under a disadvantage, but the Toronto firm argues that in the long run there is little or nothing to favor the Canadian handler of British machines. In view of the rigid inspection system in operation the statement that American motorcycles are sometimes smuggled over the border may be accepted as rather fanciful, but otherwise the statement of the Toronto firm is a straightforward presentation of timely figures and first-hand conclusions. It follows:

"Suppose a Canadian agent stocks one dozen machines at an average cost delivered here of $300 each = $3,600, and $400 worth of sundries, say $4,000 for stock alone, he must expend $3,900; say another $500 for shipment, and then there is the cost of tools, etc. If he sell all his machines at $50 profit each, say $600, he about pays his rent. If there are any radical alterations in his next year's mount, most of his sundries are depreciated in value. If he give up the agency, or the firm he was agent for turn the agency over to another firm (and this has been done), the consequence is he has lost a considerable amount of money. But let him take up an American-made machine, he can order as low as three machines, and by paying $30 to the firm he is selling for can take or leave the machines if he forfeit $10 each. He has no parts to stock, as he can get them in one day's time, the same with machines; in fact, he can become a full-fledged agent on $300.

"English manufacturers think we have a lot of advantage over the Americans in the amount of duty to be paid, but this advantage is more fanciful than real, as the American duty is 30 per cent., and English 22½ per cent. How does this work out? On a machine worth, say, $200, we pay $45 duty; the American pays $60 (when the machine is not smuggled in or the invoices falsified, and both are done). The Americans pay $15 more duty than the English, but to offset this on British machines the agents pay for packing, carriage, dock dues, and insurance, which amount to little less than the extra duty paid by the Americans. Coupled to this are the disadvantages we suffer through slowness of delivery and having to pay almost spot cash. It is easy to see that the advantage of the English product is annihilated by the close proximity of the United States; and no doubt this has a lot to do with the Canadians' preference for the American product."

WITH reference to the consumption of gasoline by cyclecars it is worthy of note that some of the more prominent English types travel only twenty or twenty-five miles to the gallon. It is stated, however, that there are models capable of making forty miles per gallon, but even this is not calculated to impress greatly the roadster who has accustomed him to motorcycle mileages per gallon of gas.

ADAM DUNCAN has resigned from the presidency of the American Tire & Rubber Company, of Akron, Ohio, and has been succeeded by James Shaw.

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LOS ANGELES M. C. ADOPTS RESOLUTIONS

Popular Pacific Squad Suggests Revisions in Governing Policy of F. A. M. and Favors New System of Handling Finances

WITH a view to assisting the F. A. M. in its movement to shape governmental policies on the Pacific Coast so that they will afford maximum satisfaction as applied to the particular conditions confronting motorcyclists there, the Los Angeles M. C. at a recent meeting adopted a set of resolutions which suggest a number of important revisions. Special attention is given the disposition of Federation funds, and it is argued that the present system of state units in the government of the organization may be improved upon. The resolutions follow in full:

WHEREAS, We believe the best service the F. A. M. can render to its members is to give them legal protection, in matters of legislation, injury, arrest, etc., and

WHEREAS, there has been much dissatisfaction in various western States because the control of F. A. M. matters of western interest has been too far removed from the West; and

WHEREAS, A large proportion of the support which the F. A. M. has received has been from far Western States; therefore be it

Resolved, That as large a proportion of all moneys received by the F. A. M. from franchise fees, sanction fees and fines as careful investigation will warrant, but preferably not less than 30 per cent., should be placed in the fund reserved for the benefit of racing men who are injured while competing under F. A. M. sanction,

Resolved, That this fund should be devoted not only to professional racing men, but to amateurs, and that emergency authority to incur expenses payable from this fund should be vested in all local referees;

Resolved, That from the balance of moneys received from the competition sources mentioned, and from all membership initiation fees and annual dues, there should be deducted and placed in the Legal Action fund such proportion, say 30 per cent., as investigation may show to be feasible with respect to routine expenses;

Resolved, That another proportion of such moneys, say 30 per cent., as investigation may show to be feasible, should be credited to each of various sections of the F. A. M., preferably sections composed of several States in each case;

Resolved, That the balance of all moneys received by the organization should be nearly or quite enough to pay all other expenses of the F. A. M.;

Resolved, That the F. A. M. would be better fitted to give its members the service it should give them if various sections, each composed of several States, were given the option of continuing the present plan, whereby each State will have a full complement of officers, such as State commissioner, secretary, etc., as provided by the constitution and by-laws, or of having only a working force of State commissioner, and one or more local commissioners for each city or town, in every State, in addition to such State or local referees as the Competition Committee may find necessary;

Resolved, That the plan of having a full complement of State officers, such as has been formed in Ohio and Indiana, is not likely to prove of the most service to members in those or other States;

Resolved, That the fact that such plan has been adopted in only those two States, after a period of six months has elapsed since the idea was adopted by the F. A. M., proves its inadaptability at this time to the majority of States;

Resolved, That we favor the reconstruction of the F. A. M. constitution and by-laws so as to permit the members of various States to form districts, each district to comprise several States, and to elect for each district a vice-president who shall also become, automatically, a member of the national Board of Directors, and who shall have power to appoint a State commissioner in each State, who in turn shall appoint local commissioners;

Resolved, That the F. A. M. should formulate a simple, businesslike plan whereby local commissioners, by showing prospective members facts about the efficacy of the Legal Action fund, can secure new members; whereby local commissioners' necessary expenses can be promptly paid direct by the national treasurer, upon the O. K. of State commissioners and district vice-president; whereby the expenses of State commissioners can be similarly paid upon the O. K. of district vice-presidents, and the expenses of district vice-presidents paid by the national treasurer after his own examination of their bills and vouchers:

Resolved, That we favor changing the membership requirement for qualification of clubs for F. A. M. affiliation so that 50 per cent. of the membership of a club will be the basis;

Resolved, That there should be more elasticity in the rules governing endurance runs and other competitions conducted by clubs, whether they be affiliated with the F. A. M. or not, so that the conduct of such events will not place financial hardship upon the clubs;

Resolved, That with an equitable division of F. A. M. moneys and the re-creation of districts and district vice-presidents, who shall also be members of the National Board of Directors, the purposes of the F. A. M. and the contentment of members and affiliated clubs will be much better served than is the case at this time;

Resolved, That a copy of these resolutions be sent to Mr. E. L. Moore, F. A. M. special representative, at Seattle, and to each of the motorcycling journals.

COUNTY COMMISSIONERS

STATE Commissioner O. F. McLain, of Indianapolis, Ind., has appointed the following F. A. M. county commissioners: Allen, C. F. G. Schory, Motorcycle Garage, 1110 Broadway, Ft. Wayne; Cass, E. W. Arnold, 211 Sixth street, Logansport; Clay, Ottis E. Allen, care of K. B. Piano Company, Brazil; Dearborn, E. V. Oberting, Lawrenceburg; Decatur, Earl Rodgers, 128 West Main street, Greensburg; Fulton, C. M. Studebaker, Twelve Mile; Grant, G. C. Harwood, 217 East Fourth street, Marion; Hamilton, P. E. Ummel, Noblesville; Knox, J. F. Borrowman, Vincennes; Kosciusko, B. C. Cooke, 120 West Market street, Warsaw; Madison, G. Relsinger, 12 West Tenth street, Anderson; Marion, D. Baumann and R. Hofstatter, 324 North Illinois street, Indianapolis; Marshall, V. Warner, Atgos; Miami, J. J. Miller, 19 East Main street, Peru; Montgomery, Grant Gould, Crawfordsville; Randolph, Thurman Constable, Union City.

REGISTERED REPAIR SHOPS

LATE additions to the list of F. A. M. registered repair shops are here given: Edward O. Haggett, 9 Casco street, Portland, Me.; The City Garage (E. I. Gully), Haviland, Kan.; W. Ambler Stetser, Broad street, Paulsboro, N. J.; Knight Mercantile Company (A. A. Knight), 211 North Twelfth street, St. Louis, Mo.; Herbert R. Sawyer, 18 Fleet street, Haverhill, Mass.; Earle S. Eckel, State street and North Wandling avenue, Washington, N. J.; E. P. Bauch, 172 Western avenue, Blue Island, Ill.; Charles D. Brown, Washington, Ill.; Schenck Motor Company (Ivan Schenck), Cardington, Ohio; Union Garage (I. H. Atherton), Union, N. H.; King & Wheless (J. B. King), Main street, Thomaston, Ga.; J. F. Kilham, 55 Broadway, Beverly, Mass.; Sanders Machine Shop (L. H. Kirk), Havre de Grace, Md.; Motorcycle Sales Company (A. J. Strube & J. H. Littinger), 3166 Reading Road, Cincinnati, Ohio; Frank B. Spoor, Byron, Ill.; William F. McCarty, 288 Main street, Nashua, N. H.; Central Motorcycle and Bicycle Store (Tutie Palmison), corner Central avenue and Madison street, Sandusky, Ohio; August Headstrom, Stromburg, Neb.; H. F. Windeknecht, 536 Washington street, Hoboken, N. J.; Lindsay Cyclery (E. W. Cosart), Lindsay, Cal.

Those reported for the week ending February 2 are as follows: O. H. Kathmann, 114 South Seventh street, Quincy, Ill.; Santa Cruz Cyclery (C. G. Coleman), 229 Pacific avenue, Santa Cruz, Cal.; Sarver & Retz, 508 South Walnut street, Muncie, Ind.; Edgar H. Brumelle, 359 Fulton street, Troy, N. Y.; A. D. Diamond, Public Square, Galion, O.; J. Johnson & Son, 3321 Kensington avenue, Philadelphia, Pa.; Harry F. Seamark, Sixth avenue and G street, W., Washington, D. C.; Santa Fe Trail Garage (J. P. McCollom), Dodge City, Kan.; Spahr Brothers (B. S. & A. J. S.), Canal Dover, O.; Medina Garage (W. W. Coons), North Court street, Medina, O.; Monarch Garage (Poulton & Hostetter), 20th street and 57th street, Philadelphia, Pa., and Frank T. Laird, 410 Drayton street, Savannah, Ga.

CIRCULARS are being sent out by Chairman Estabrook, of the F. A. M. Membership Committee, to 5,000 dealers throughout the country. These circulars contain literature prepared by the F. A. M. telling the dealer of the many benefits to be derived by registering with the F. A. M.

PRESIDENT Patterson has appointed J. A. Hall, of Brooklyn, State commis- for New York, and Charles Holland, of Midlothian, commissioner for the northern part of Texas.

A. L. SPINDLER, 1339 Michigan avenue, and L. H. Whipple, "the motorcycle man," are new Pope dealers in Chicago.

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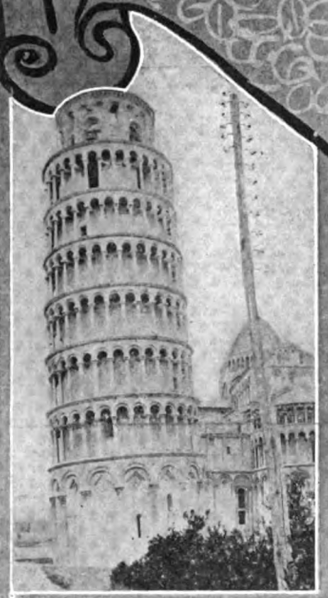
IN FRANCE & ITALY

with

F. W. BAUM



IT was almost dark when I arrived at the Place de la Pyramid, in Paris, and leaving my machine in the public square, I started to look for a hotel and a place to store my mount. Upon my return to the square, my machine had disappeared. On seeking aid from a gendarme I was led to the station where I found my mount and baggage; the latter had been opened and was scattered on a table. After proving my identity I was allowed to take my property, but not without being reprimanded. I felt sorry for the gendarme who had taken the machine to the station, as it was uphill work for five blocks.

I obtained accommodations at the Hotel d'Angleterre and the next morning I sought a repair shop and had seven spokes put in my rear wheel. On returning to the river, I was greatly surprised to see the embankments for several hundred yards swarming with people. During the night the peasants and petty dealers had erected booths and stands, and had everything from garden products to a complete assortment of department store goods for sale.

ENCOUNTERING AN ARMY.

Leaving Lyons, about three miles out, I was forced to abandon the road for an hour to let a line of French artillery pass. This was the largest aggregation of artillery I had ever seen, being fully three miles long.

From this point on I encountered many grades and several long tunnels. The sensation of riding through a tunnel, when the spot of daylight at the end seems to be the size of a dime, is the most peculiar I have ever experienced. One is continually afraid of running into the walls, and the only thing to do is to keep the eyes directly on the spot of daylight and hold the handlebars rigid. While rounding a turn on a mountain road I picked up a hob nail, and thereby lost the Brockton (Mass.) air out of my front tire.

ON DANGEROUS ROADS.

It was not long before I started the ascent of Mt. Anis. The road was very steep, with sharp hairpin turns. On making the turns it was necessary to slow down to such an extent that it would have been impossible to make the climbs without the help of my Eclipse clutch. A skid or failure of a brake to work when making these turns would mean a fatal fall. The road is around the mountain, rather than cut through it, and is very narrow, with the precipice at its edge. The outside of the road has stone studs every ten feet but these would not be likely to stop a motorcycle.

Modane is the last French city of any importance on this route. I passed through the little village of Lansleburg before coming to the top of Mt. Ceris. My Eagle made the climb in good style, and as this was the steepest gradient I had encountered I felt confident of being able to negotiate all others. I was first stopped by the French officers, but upon presenting my credentials from the Royal Automobile Club, I was allowed to ride about a half mile further to the Italian frontier. Here I was compelled to go into the office, and have my triptyque examined. I was told I must deposit eight francs in gold before I could go on. I soon convinced the official that I did not have that much gold with me, and as he could not accept an American Express check, he decided to sign my triptyque and also made out some special papers. Next he tied and sealed my kodak, instructing me not to open it until I had passed out of the fortified district. A lead seal was placed on the handlebar of the machine and I was told not to remove it while in Italy.

IN PICTURESQUE ITALY.

While on this point (6,829 feet above sea level), I could obtain a beautiful view of the valley of the Arc, overlooked by the Dent Parrachee glaciers. The ascent is about 20 miles in length. From the pass, the road is in very poor condition and has even worse turnings than the ascent from Modane. The Lake of Mt. Ceres and the road to Hospice are very beautiful. There is a valley with high, rocky cliffs on either side, and a winding stream near the road. I now found myself in the heart of the Italian fortifications, and the climate here affords a healthful summer resort. The road from Hospice is practically level for a mile, and then the treacherous part of the descent begins. I used my brake until my leg muscles ached. I also used my compression as a brake.

The Italian customs are again encountered at Molaretto, and from there the road descends by wide curves to Susa. I found a comfortable hotel, but was disturbed until midnight by the noise made by 200 banqueters in the hotel garden.

THE FIRST SPILL.

I stocked up on gasoline at 70 cents per gallon and left over a fine road for Turin. While on this road I actually attained a speed of 75 miles per hour. I made a short visit in Turin and then left for Milan. The road was very bad and in some places there were as many as six parallel ruts. Many little villages were encountered and all have exceedingly narrow streets, which are dirty and poorly paved. The natives made little effort to get out of my way and it was often necessary to stop. By a circuitous route I found my way to the Piazza Duomo in Milan, and had no trouble in locating the R. A. C. Hotel Metropole. I spent most of the next forenoon in seeing the city and taking pictures.

In the afternoon I left for Venice, but having been misdirected I soon found myself in Carate, about twenty miles north of Milan. I returned to Milan to find the road to Porta Venezia, as Venice is called. It was on this trip that I experienced the first spill from my Eagle which was caused by skidding on a car track. I bent my crank-hanger and while fixing it such a crowd gathered that I was forced to seek refuge in a shop. I found the main

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road to be very wide and good, although white dust was much in evidence all through Italy. My route lay through Brescia, Lonato, Verona, Vicenza, Padua and Mestre.

SIGHTSEEING IN VENICE.

At Mestre, where all motor tourists in Italy must leave their machines, I found a garage where I could store my mount at a cost of twenty cents per day. I took the train for Venice, going over the famous railway bridge, which is supported by 222 arches. Venice is very impressive at the first glimpse, on account of the canals. The city outline is in the form of a huge vase with the Grand Canal winding its way in a reverse curve manner.

A motorcycle would be utterly useless here, of course, as the streets are all canals, except for a few lanes near piazzas, and these are intercepted with bridges which have stair approaches. Every building seems to be interesting in Venice, and it is needless to say that I visited St. Mark's Cathedral and fed the pigeons of St. Mark, which may be said to be one of the most lasting memories of the visitor to Venice. I took a gondola on the Grand Canal, visited the famous Rialto, the marble winding staircase, Bridge of Sighs, Ducal Palace, and many other equally interesting scenes. I returned to Mestre, feeling that Venice in itself was well worth a visit to Europe.

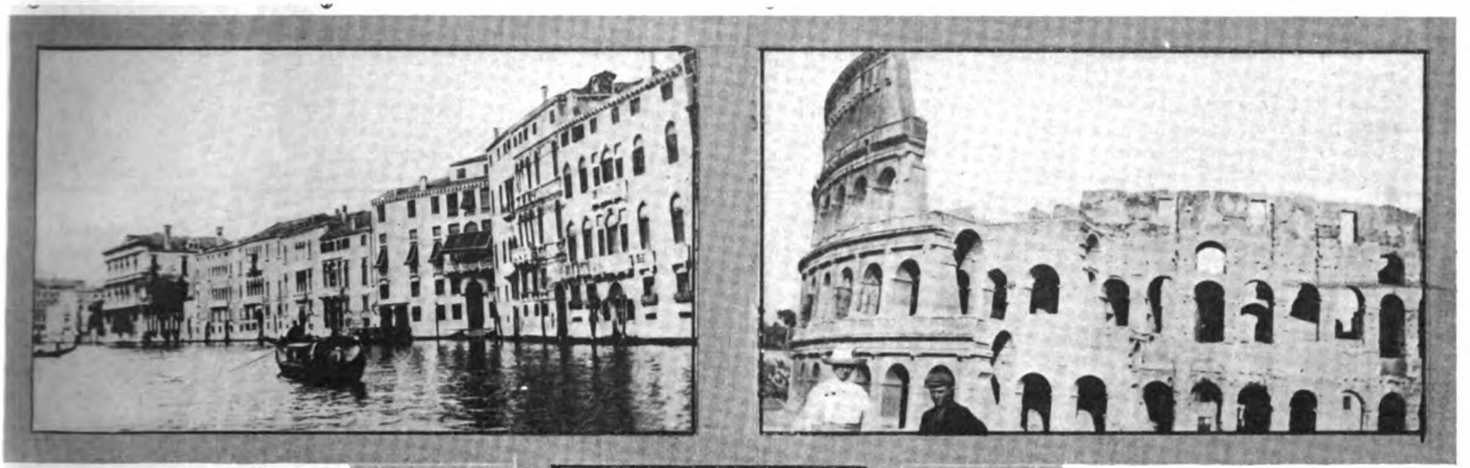
WHERE FUEL PRICES WERE HIGH.

The next day I left for Florence, stopping at Bologna, which did not prove very interesting for me, and reached Florence in the evening. The distance covered was two hundred miles, over mountainous roads with steep gradients. Up and down in roller coaster fashion the rider is carried through some of the most beautiful scenery imaginable. I met an English Belsize car just out of Florence and rode alongside it into the city. The occupants of the car gave me some useful information as to what I should visit in and about the city. It seems that the Cathedrals of Italy are the most important examples of architecture in the different cities. Near the Ponte Vechio, on the River Aino, I received a detailed map of the city from an English speaking jeweler. This bridge, the Ponte Vecchio, is the Rialto of Florence, and its shops on either side of the passageway of the bridge, remind one of the busy Rialto of Venice. The Piazza del Duomo, Palazzo Reale, and the monument of Victor Emmanuel, also the house of Dante, are among the more important places of interest.

At Arezzo I had to pay a chemist eighty cents a gallon for gasoline. It is seldom, however, that one is literally held up on the price of gasoline or oil as in this instance. It happened to be after business hours and as most storekeepers live in the rear of their shop I had no difficulty in arousing the proprietor. A few miles further on is Castiglion del Lago, which is near a beautiful mountain lake. In this valley I had my first taste of fresh figs. These are entirely different from the layer figs of our country, being much richer. They can be bought for one or two cents a dozen, but I'll wager few Americans could eat a dozen in succession.

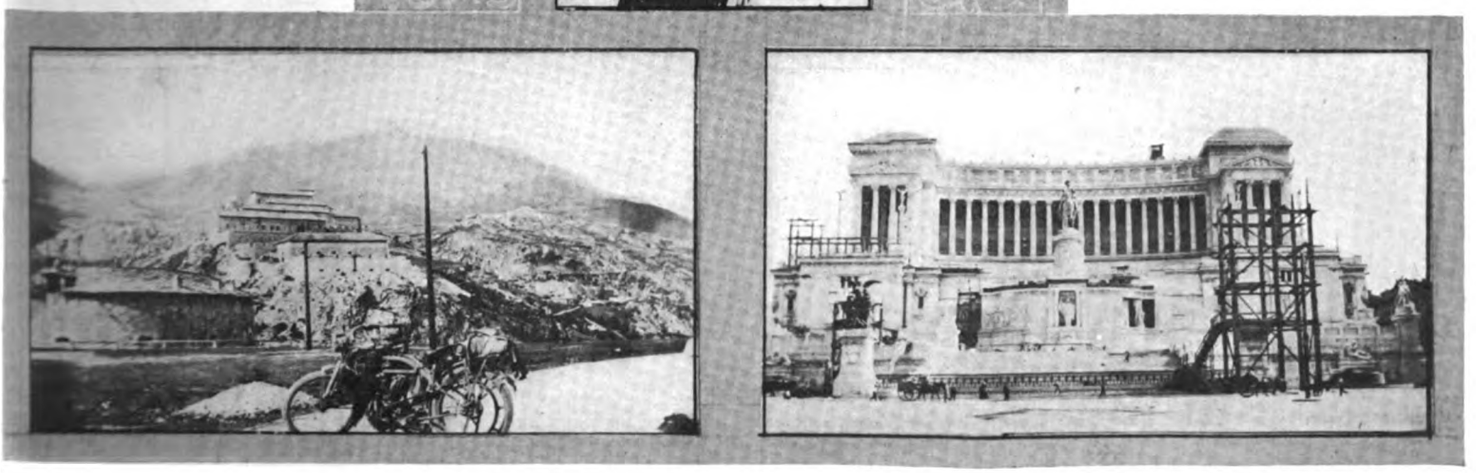
AMONG THE RUINS OF ROME.

My route to Rome lay through Perugia, Folingo, Somma Pass (2194 feet above sea level), and Passa Correse. The roads could not be considered very good, many of them being rough, dusty and mountainous. My in-



ABOVE is shown the first "street" that balked F. W. Baum on his recent tour of Europe. It is the Grand Canal in Venice, the principal thoroughfare of this picturesque Italian city. Baum left his motorcycle at a town some distance from Venice and made the trip to the "City of Canals" by an antiquated railway.

The upper picture at the right shows the ruins of the Coliseum in Rome. In the center of the picture Baum appears standing on the famous bridge of sighs in Venice. The lower left hand photograph gives an impressive view of snow capped mountains near the French frontier. In the lower right hand corner appears the beautiful Victor Emmanuel monument in Rome.



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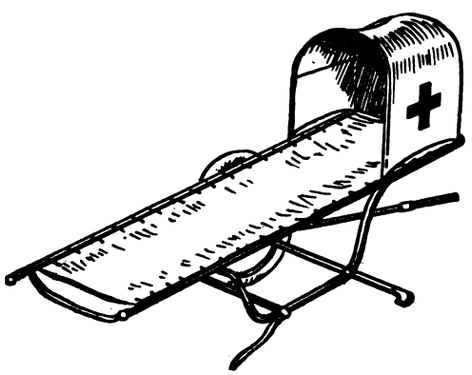
terest in Rome was much influenced by my study of the Roman history at school. The "Seven Hills" are almost undiscernible to the visitor, but will be pointed out by willing guides. From the rear stairway of the Campidoglio a fine view can be obtained of the greater part of the ruins of Old Rome, including the Forum, the Coliseum, Arc of Constantine, Arc of Tito and Nero's Fountain. The Coliseum was intensely interesting, the stone stairways, four stories or levels of the structure, the boxes for aristrocrats, the arena, animal dens, prisons of the Christians, and subterranean passages are enough to awe any visitor.

I next went to the Vatican and St. Peter's, and was greatly impressed with the statues, altar and interior decorations of this famous place. While visiting the Vatican I met an American lady from San Francisco who was traveling around the world. She had a letter to the Pope, whom she was waiting to see. Rome is as beautiful a city as one could wish to visit. The fountain at the end of the Via Nazionale is of unusual interest, with four huge bronze statues at the cardinal points. The new crescent shaped monument of Victor Emmanuel can be seen from almost every part of the city.

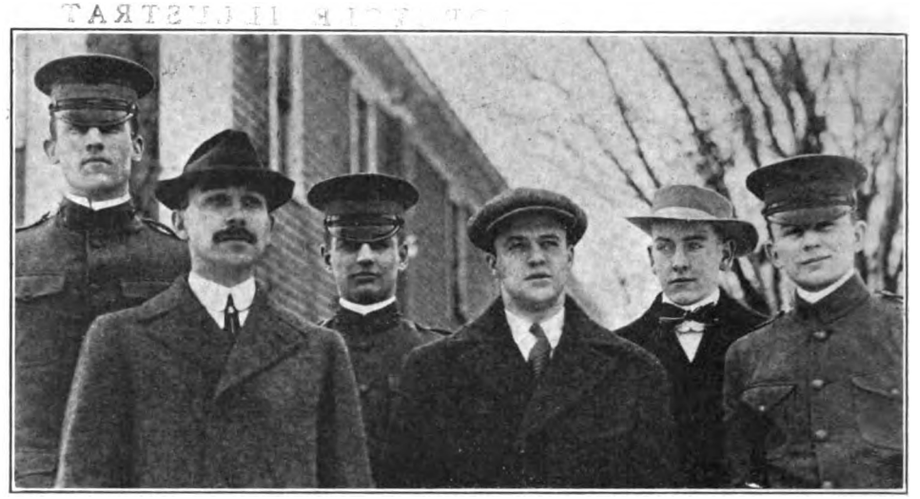
A RECORD FOR DUST.

I decided to take a jaunt out of the city to see the Appian Way, or old Roman aqueduct. This reminds one of a mammoth bridge, with several sections taken out at irregular intervals. I had intended to visit the newly excavated city of Ostia, but did not think of it until I had passed Civitavecchia which brought me out on the coast road. This was somewhat better than the roads around Rome. During my stay in Italy there was no rain and the dust was annoying. Many times after a motor car passed me I could not see the road for several minutes. At one time I started out of a city behind a big limousine and did not think to pass it before reaching the highway. The party drove fast and raised so much dust that I could not see to pass and was forced to stop for fifteen minutes to allow the dust to settle. The steam roller is a thing unknown in Italy. The stone is thrown on the road and the traffic grinds it into the roadbed.

Before reaching Pisa I passed through Leghorn or Livorno, as it is called. I could see the familiar outline and slant of the Leaning Tower long before I reached the city. After riding through many narrow streets I finally reached the Duomo or Cathedral. I paid about six cents to climb a lot of winding steps to the top, which has a circular promenade. The angle of the tower is very pronounced and the lower floor is sunken. There is little else to see in the city so I left soon for Geneva. I was advised to avoid the Carrara marble quarries, but upon inquiring I received so many contradictory answers that I decided to follow the regular route. I admit that I had considerable trouble, and was thankful that the weather conditions were favorable. In due time I reached Genoa, where I visited the birthplace of Columbus. This was a tiresome ride and I would advise prospective tourists to steer clear of this city unless they want to tax themselves and their machines to the utmost.



Sidecar Ambulance Outfit, Shown at Recent English Show.



CADETS TO TOUR EUROPE

A MOTORCYCLE trip through the British Isles and part of Continental Europe has been planned by Professor W. R. Berger and five cadets of the Manlius School, of Syracuse, N. Y. They will leave immediately after the commencement in June and will be on the road until the middle of October. The cadets are: Kenneth Chorley, New York; W. K. Jenne, Jr., Ilion; E. B. Jewett and Walter R. Edmonds, Buffalo, and G. M. Jones, Utica.

All the men will be equipped with new machines. Sailing from New York, they will land at Liverpool and then go West to Chester, Oxford and London. The first important stop after leaving England will be Antwerp. Then the party will journey through Holland, Belgium, Germany, Switzerland and Italy. The return to London will be made in time for the international motorcycle race September 22. On the return trip a stop will be made in Paris. Professor Berger, having spent last summer traveling in Europe, and Mr. Chorley, who is familiar with roads in both England and the Continent, will act as guides.

STATE ACTIVITY

FROM President B. J. Patterson, of the F. A. M., come several interesting extracts from letters recently forwarded to him by Federation commissioners.

State Commissioner Wharton states, for example, that North Dakota has only five F. A. M. members with which "to begin the new year," but that the outlook is bright for rapid progress in the state throughout the coming season.

State Commissioner P. N. Bushnell, of Aberdeen, writes that South Dakota has about 600 F. A. M. riders and that the Aberdeen club, a 100 per cent. F. A. M. squad, is looking forward to a membership of 100 before the end of February.

PRACTICAL TALKS

IN order to familiarize its members with all the details of the motorcycle and its numerous accessories, the Buffalo (N. Y.) Motorcycle Club is holding a series of lectures, which are given by experts. At the last meeting of the club, Frank W. Pardee, of the Ericson Manufacturing Company, of Buffalo, gave an interesting talk on the magneto. He showed some diagrams of the types of magnetos now in use on the various machines.

MAY HAVE TWO TRACKS

DETROIT, Mich.—As soon as the frost is out of the ground, work will be started on two motorcycle speedways in Detroit, according to the plans of Jack Prince and Chas. P. Salen. One of these tracks is to be a combination automobile and motorcycle speedway, a mile and quarter long, for which Prince leased a 120-acre tract of land at Gratiot and Taylor avenues, last year.

The estimated cost of this speedway is $100,000. According to the blue prints the track will be 50 feet wide, or four feet wider than the Indianapolis speedway, and it will be banked to 20 degrees in the stretches and to 45 degrees at the center of the banks.

Salen last week secured a five-year lease on a suitable tract of land on Jefferson avenue, near the Hudson automobile plant. It has 500 feet frontage, a depth of 520 feet, and is located on one of the principal car lines of the city.

The motordrome will be a huge wooden structure, 480 feet in diameter and over 30 feet high. It will have a quarter-mile track banked at an angle of 60 degrees. Above it will be seats for 10,000 spectators.

OHIO'S ROAD PLANS

COLUMBUS, Ohio.—Senator William A. Weygandt is drafting a bill to be introduced in the Ohio Assembly, providing for the sale of all abandoned canal property in Ohio and for the use of the proceeds for the improvement of the highways in the state. Governor Cox is favorable to the proposed law. It is estimated that the sum of $20,000,000 would be realized from the sale of the state's abandoned canal property.

DE ROSIER IN SPRINGFIELD

JAKE DE ROSIER, who recently returned home from Los Angeles, has now entered a Springfield (Mass.) hospital in an effort to save his injured leg through another operation.

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WANTED - A HILL

BY DWIGHT · B · PANGBURN

IT was the Old Scout speaking. "I'll bet you my new hat against a gallon of oil that there isn't a hill within 25 miles of here that my twin won't carry me up." His remark was just by way of driving into me the superiority of a twin over a single; I ride a single. Sadly I admitted that there are hills my model won't take, and if he hadn't been so persistent the matter would have dropped there. But I couldn't bear to see him offer 5 to 1 with no takers, so I said finally, "I'll have a hill for you inside of a week."

A range of the foothills runs down from the north and stops a mile or two out of town, and the west side of some of the hills is almost a perpendicular cliff. None of the roads up that way are good, and like other motorcyclists I had steered clear of the place; but I had heard that there was a road that climbed the range somewhere, and that was what I was betting on.

I started out one afternoon to find that cross-over. I went up the valley road, with the cliffs on the right and the river between, keeping a watch for a cross road. Just above Twin Lakes, where the valley broadens, the range bends away to the right and shows a promising notch. A little further on I found that a narrow road started in the right direction. It was nothing to boast of as a road, but at that it was smoother than the road I had just covered, so I tackled it.

AN EXCITING INCIDENT.

The bushes grew up on high banks close to each side of the road and I was beginning to wonder what I would do if I met any traffic, when I topped a rise and came right upon a hay wagon, driven by a tow-headed yokel. The wagon was standing in the middle of the road, and filling it completely from side to side, while the horses were resting after coming up the hill. I stopped my engine and looked the situation over. The only thing that bothered me was how we were to pass each other, as the farmer couldn't drive over me and I couldn't get past him.

"Guess you'll have to turn 'round and ride the other way, Bud," suggested the driver cheerfully. "There ain't room for you to pass me an' I'm goin' right along. Git up, Dobbin; git up, Sarah!"

But I didn't intend to turn tail for any hay wagon, especially with the seediest part of the hay on top holding the reins, and more particularly as I saw that Fate had kindly prepared for me a way out of the dilemma. Between us was a low culvert in the road, and under this ran a small stream, usually 4 or 5 inches deep, but now nearly dried up by the summer heat. This stream made an opening through the bank and brush at the side of the road and quickly pushing my machine into the bed of the stream and up a little way from the edge of the road I was able to laugh at my friend the enemy as he drove by.

LOCATING A CROSSROAD.

I went on and soon passed a little farm, from which I suspected the farmer had come. From here on the road was less and less traveled until at the end of a mile it was practically all grass, and at this point I reached another farm house. A few yards beyond, to my dismay, the road ended. Also to my consternation there was a sign hung conspicuously on a corner of the fence. It read: "We keep a dog; he bites."

There didn't seem to be anyone in sight, but I was very near the notch and I wanted to find whether there was a road through it, so I nonchalantly dropped my wrench in one pocket and putting two or three good-sized stones in the other I approached the house. I knew there was no hope at the front and went around to the back door where I found a woman piling wood. I approached her and inquired if any road went through the notch, meanwhile keeping a nervous eye out for the dog.

"Sure they's a road through thar," said the woman. "What's matter? Some one chasin' ye? What are you lookin' around for?"

"No one's chasing me," I replied; "I was looking out for the dog."

"Oh," she returned, "there ain't none. Sis an' I had that sign put up to keep tramps from bothering us. Sis is that tender hearted she'd let 'em eat us out o' house an' home."

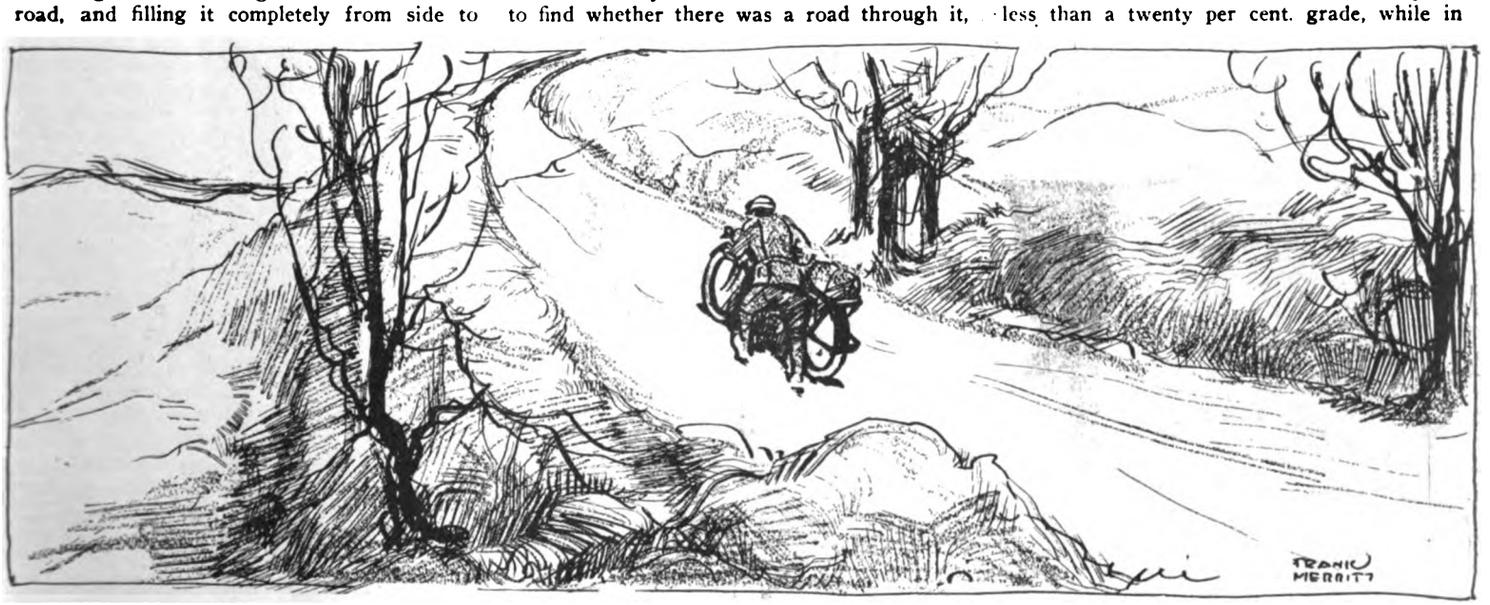
"Is there any way I can get to that other road?" I asked.

"Yep," she answered, "you can go acrost our orchard and wood lot if you want too. It ain't over a third of a mile. Just go through the bars ahead at your right an' don't forget to put 'em up after you. There's a trail through."

ON THE RECORD HILL.

I found the trail and started walking, as it was too rough to ride. All went well through the orchard but just before getting across the wood lot I ran over a very sharp stub and heard the air gently sizzle out of my rear tire. I went on the few remaining feet to the road and soon fixed the leak, using my last patch to do it. Then I started on and in two minutes I struck the hill.

I knew in a mighty short time that I had found what I wanted. The hill was steep—I have measured it since and find no place less than a twenty per cent. grade, while in



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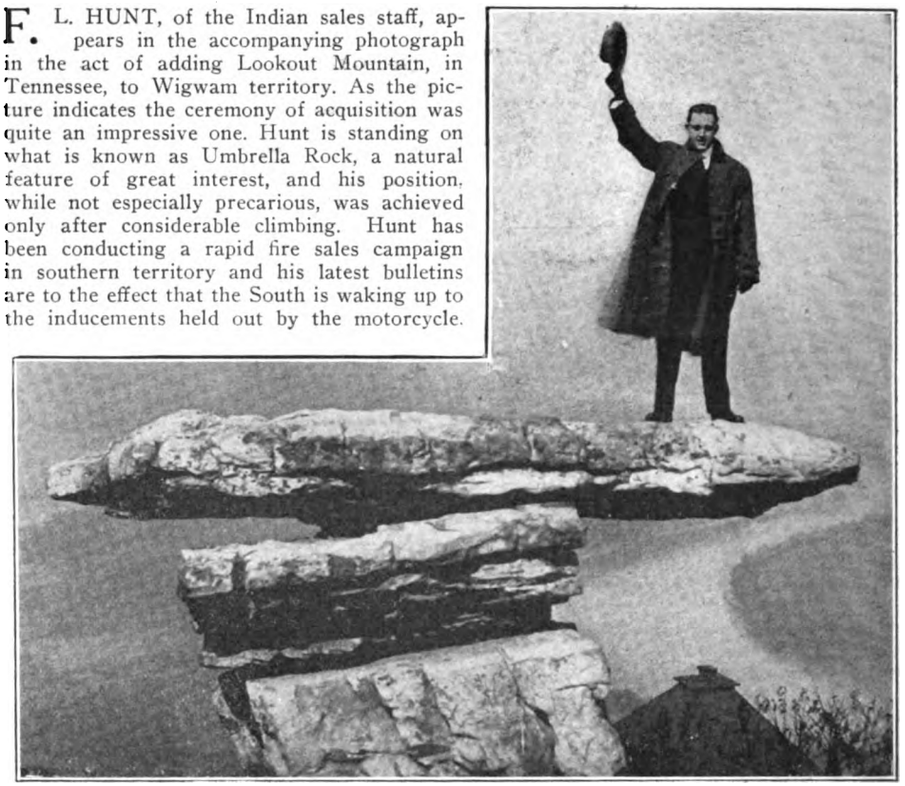
many spots it is thirty per cent. and almost 40 per cent. It could not be said to have S turns for they were too sharp; they were more like Z turns, and they came one right after another. It reminded me of climbing a circular stairway. The hill was so steep that most of the earth had washed away, leaving only a surface of stones. Most of these were small enough to roll under the machine, but frequently there were rocks as big as your head, and here and there a ledge of the mountain would crop out and make a steep pitch where it was hard to get traction; now and then there was a natural thank-ye-ma'am across the road.

My engine ran slower and slower; I pedaled to help it, but in spite of all I could do it stalled. I got off and walked up to investigate. About 100 feet ahead around the next turn the hill didn't seem so bad so I went back and started the engine to let it pull the machine up while I walked beside it. This worked till I got to the steeper pitches and then I began to push, for I was determined to get up that hill. Soon I had to stop and rest—you who have ever pushed a machine uphill know why. I turned around, expecting a fine view but I was far enough into the notch so that all I could see was the valley directly below, and there I saw my friend of the hay wagon apparently taking the road I should have taken and coming through the notch.

F. L. HUNT, of the Indian sales staff, appears in the accompanying photograph in the act of adding Lookout Mountain, in Tennessee, to Wigwam territory. As the picture indicates the ceremony of acquisition was quite an impressive one. Hunt is standing on what is known as Umbrella Rock, a natural feature of great interest, and his position, while not especially precarious, was achieved only after considerable climbing. Hunt has been conducting a rapid fire sales campaign in southern territory and his latest bulletins are to the effect that the South is waking up to the inducements held out by the motorcycle.



A SURPRISE FOR THE FARMER.

Then I knew I just simply had to get to the top. It would never do for him to find me stuck on the way up. So I went on. After a while I got to the top and sat down to get a rest and cool off while looking at the fine view. Half an hour later the hay wagon appeared with half the load missing. The driver blocked the wheels to give the horses a rest before starting up the last steep slope. In a few minutes they came on and got up opposite me, where they stopped again.

"Where's your hay," I called, "did it slip off?"

The driver came out from behind the team; he hadn't noticed me before.

"Gosh! How'd you get here?" were all the words he could find.

"Oh, the little old tub can pull pretty well," said I. "I've been sitting here enjoying the view for a long time—but where's your hay?"

"I had to leave half of it at the bottom of the mountain," he answered, "Two hosses couldn't never pull a full load up this here road. Well, I gotta go long and take this over an' come back an' get the rest. G'long, Dobbin! G'long, Sarah! It does beat all how them pesky machines climb hills don't it!"

I rolled into town and around to the Old Scout's house.

"I've found it," I chortled.

"Found what?"

"Why, the hill that'll stick you," I said.

"There isn't any such thing," he replied. Call off that bet of the hat against the gallon of oil," he went on. "If I can't climb yon hill I'll *give* you a hat like mine. If I do you needn't give me anything, because I can't fail and I'd hate to bet on a sure thing."

We went out. The Old Scout tried the hill on direct drive. He disappeared around a turn and I heard his engine stop. I walked on up with visions of a new hat. I found him straightening a pedal.

"This turn is so blooming sharp," said he, "that I went into the ditch, but I'll make it next time."

He got the pedal fixed and went down to try again. By using the clutch and slowing on the turn he made it, but when he rolled over the top of the last pitch his toes were on the ground to balance himself and his clutch was smoking like a small volcano. But he got up.

"Now that I know the road I'm coming up in a hurry," he shouted at me as he went down again. That time he rode all the way up on direct drive, except on the very worst turns, and went over the top at 15 miles an hour.

Next year I am going to ride a twin—one like the Old Scout has.

Bay Ridge Club, of Brooklyn, N. Y., at Its Annual Banquet.

BAY RIDGE M. C. GROWTH

ONE of the largest and most active motorcycle clubs in Brooklyn, N. Y., is the Bay Ridge M. C. The club was organized in the spring of 1911 when six motorcyclists of Bay Ridge met in the repair shop of the Simplex Machine Works and formed the Sunset Motorcycle Club. This name was changed in July, 1911, at which time the membership had been materially increased. The present name was adopted in honor of the section of the city in which the members reside. Prior to this time the meetings had been held at the homes of the members, but with the increased membership the boys felt the necessity of a clubhouse and accordingly one was rented on Fourth avenue.

The present staff of officers is made up as follows: President, H. Bishop; vice-president, L. Goemans; treasurer, Jules Verbeck; secretary, J. McCormack; captain, W. Kaiser; first lieutenant, W. Moers; second lieutenant, John Varbeeck; pennant bearer, C. Bergman; chairman house committee, F. Deckelmann, and C. Claussen and T. Halvorsen are the directors.

The accompanying photograph shows a number of the boys at a recent banquet.

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The Timely Tipster

HOWDY, Old Top; great little assortment of winter weather they've been putting across the board for us of late, eh? Nothing monotonous about it, not for a minute. Mackintosh yesterday, fur coat today, and an even chance for shirt sleeves tomorrow. When a chap trundles the old bus out for an airing these days he never knows whether to carry an extra blanket or a palm-leaf fan. For example, I headed for the country one Sunday morning recently in full winter regalia; sweater, short fur coat, heavy knickers, thigh-length leather leggings, the stoutest shoes I could find and a fur-lined cap, and before I had been an hour on the road perspiration was trickling down my back and I was experiencing all the interesting but untimely sensations of a fat broker in a Turkish bath.

When I left home the day gave promise of being crisp and a bit windy, but before 10 o'clock there was April in the air. To make matters worse I had fitted tire chains, and finally in desperation I made a halt and removed them. I was not a transcontinentalist and didn't like to have other riders eyeing me as if I were on a record-breaking dash to Chilkoot Pass. It made me nervous. Still I couldn't shed the heavy coat; after working up perspiration I was obliged to stick to my winter togs, and what's more to the point they were sticking to me.

WHEN THE LAST STRAW FELL.

I ARRIVED back in New York early in the afternoon, and more as a joke than anything else I decided to run down to Coney Island. When I reached the big resort I found the beach fairly well peopled and the straw that nearly broke my winter resolution fell when I discovered that about seventy-five bathers were laughing and floundering in the surf. Imagine it! Regular human beings—quite like the rest of us—bathing on a Sunday in January, and enjoying it. And there I stood beside my mount, panting in a costume that was but one degree removed from the outfit of an invalid Esquimau. Great weather for winter riding. Yes, indeed.

A MOUNT FOR THE MUDLARKER.

WHILE I lay no claims to prowess as a mudlarker I have been quite deeply interested of late in a novel type of motorcycle offered by an Englishman named Roe, in which the aim is to afford the rider comfort and almost complete protection on the road.

The machine has a 6-ft. wheelbase and an open frame, minus a top tube; these are the essential peculiarities of its construction. Its great length permits the rear frame to be hinged amidships against compression and tension springs, and the long leverage thus provided attains silky suspension with the minimum of up and down motion. The rider sits (e. g., in a leather sling resembling a deck chair) just where the bottom bracket would grow on a standard frame; his rump only clears mother earth by a foot or so. His whole person, together with all the mechanism, if so desired, is enclosed in a high-sided, canoe-like body, which may be composed of sheet steel, of tin or aluminum panels on a spider frame, or of waterproof fabric stretched on cane girders and ribs. A small wind screen and hood can be fitted. Handlebar steering is impossible, owing to the high sides; so duplex wire cables run from the standard type steering head of the spring forks to a small vertical hand steering wheel, set at a convenient height in front.

STARTING AND STOPPING.

MR. ROE provides two alternative devices for facilitating the use of the machine when stationary or at low speeds. The vital part of both devices consists of a pair of 8-in. wheels, shod with cushion tires, and mounted one on each side of the rear wheel. For expert use he advises that they should be rigidly fixed at such a ground clearance that the machine cannot tilt over in either direction to a dangerous angle. The side doors can be pushed open by the rider's knees, so that he can thrust out a foot on to the ground, to steady himself in a clutch start, or in slowing down. The other design allows of the ground clearance being adjusted by a side lever placed within the body. For starts, stops or greaseriding the wheels would then be depressed into ground contact, and tucked up out of the way when the machine is on the move. This design presents great attraction to the all-weather riders over here.

SETTING THE PACE IN TIRES.

IT is worthy of note that English riders and manufacturers are inclining toward our policy of fitting larger tires, and that many experienced roadsters are now fitting 3-inch covers, at least for the rear wheel. In this connection a writer in *The Motorcycle*, of London, states that he found 3-inch tires capable of eliminating many of the discomforts of prolonged riding, and that his only objection to them (aside from the additional cost) was aroused by a proneness to sideslip.

I am willing to admit that he has theoretical grounds on which to base this claim, but motorcyclists of my acquaintance have not complained of increased slipping with the larger tires that are now being offered. On the contrary, a broad tread of up-to-date anti-slip construction would naturally be expected to afford an exceptional grip on the road, and I have reasons for believing that these expectations are fulfilled. What do the boys think of this? Is the 3-inch tire a slip producer?

SILENCER VS. EFFICIENCY.

I NOTE without surprise that the recent muffler tests conducted on Brooklands track, England, under the auspices of the A. C. U., showed the margin of speed in favor of the non-muffler motor to be negligible. This is significant in view of the fact that cut-out advocates usually create the impression that there is a vast difference in efficiency between a motor silenced by the standard muffler and one with a free exhaust. In one or two of the English tests muffled and unmuffled motors made precisely the same time in their circuits of the big track, and all in all the silencer proved that it is far from being the hindrance its enemies would have us believe.

LOOKING FOR "BIG THINGS"

GUS BETAT and C. F. Sauer, of New Orleans, were among the Chicago show visitors who returned home determined to do big things in the way of developing motorcycle interest in their state during 1913. They state that Louisiana roads are as a rule not inviting for motorcyclists at present, but that there is a bright outlook for progress in highway improvements.

Motorcycle Police Squad of Berkeley, Cal., Supplied with Thors by A. Freed, of San Francisco.

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An Ideal Tour in the Berkshires

By ROBERT BRUCE of the A. A. A. Route and Map Service.

I AM obliged to speak without personal experience of the great country beyond the Rockies, and the Sierra Nevada Mountains; but after a long and fairly close acquaintance with most of the territory east of the Mississippi river, I have discovered no similar area exceeding in the infinite variety of scenery and all-around interest and attractiveness for the motorcyclists, what would be included within a radius of 100 miles from Albany and Troy, N. Y. In that imaginary circle will be included the far-famed valley of the Mohawk, practically all of the historic Lake George country, lower Lake Champlain, the upper Hudson watershed, and the very best of the Berkshire Hills district of Western Massachusetts. It is interstate territory—a trifle more than half in New York State and the balance in western New England.

A Good Road Past a Typical Farmhouse in Western Massachusetts.

Of all the individual localities within this radius, the best known and most traveled is that referred to collectively as the Berkshire Hills; their center is the city of Pittsfield, Mass., but they also include Lenox, Stockbridge, Lee, Great Barrington, Interlaken, Glendale, Housatonic and other pleasant towns. Between the Hudson at Albany or Troy and this interesting section are a variety of roads, not likely to be mastered in all their intricate windings by even the most persistent of motorcycle travelers, ranging from the very best macadam, such as most of the Albany-Pittsfield route, to the naturally poor, long-neglected kind, which best describes many of the secondary roads. Taking the usually good with the occasionally bad, the average will turn out very well; and, of course, the experienced motorcyclist gradually learns to pick out the one kind from the other.

The early scouts among my friends had passed along the information that the foliage in the Berkshire Hills last fall was finer than it had been for several years past. It will be remembered that the cold weather came late, and for an unusually long time this whole beautiful interstate section basked in the cheerful sunshine of Indian summer. I had already "sampled" it in the course of some shorter trips in the Mohawk Valley and the foothills of the Adirondacks. The touch of autumn had first lighted upon the tip ends of the topmost trees—slowly creeping to the exposed branches, gradually moved in and around, and finally enveloped the whole living tree.

Now I knew that this miracle of nature was always on a greater scale in Western Massachusetts than anywhere in the Hudson Valley, since the landscape there is more heavily wooded, and is in fact one vast panorama of valley, forest, lake and stream, often resplendent in colors. So, when unexpected business called me to a city on the other side of the Berkshire Hills, I telephoned to a friend in Poughkeepsie suggesting that he come up to Albany and join me for a motorcycle ride overland to Pittsfield. I broke in upon him rather suddenly in this manner:

"Hello, Sam, what do you say to the scheme? Are you on?"

"Am I on for a road trip to Lebanon Springs and Pittsfield? Well, I am really stale for the want of a day off; so you set the day and I will be with you—the sooner the better."

"Can you make it day after to-morrow?"

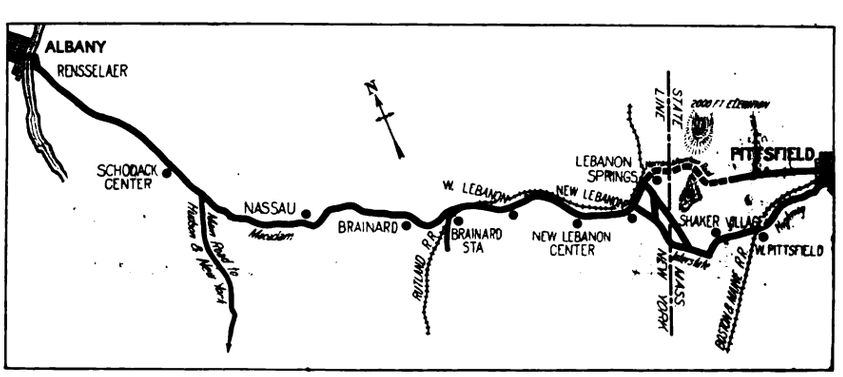
"Yes, day after to-morrow; I'll be on hand."

THROUGH DROWSY VILLAGES.

So it happened that the second Sunday morning in October we started down Capitol Hill on State street, Albany, turning right on South Pearl street, and soon left on South Ferry street to the old bridge that carries all the road traffic over the Hudson river at this point. Toll is charged, and you pay this as the outward and visible sign of your freedom from the city. The passage over the bridge is anything but a pleasure, on account of the heavy business traffic, and the big boats anchored on the river on the right suggest the commercial importance of the upper Hudson.

Turning right at the Rensselaer end of the toll-bridge you can at once speed up, running over the B. & A. R. R. tracks into the country, and toward the pleasant hills whose faint outlines can even now be seen. The old Post Road is followed through the scattered, sleepy town of Schodack Center to an important point just beyond, where travel bound for Hudson, Poughkeepsie and New York branches off to the south. Our route continues on a direct line toward Pittsfield, and at the same time leaves the line of the B. & A. R. R., which first dips down to Kinderhook and then bends up through Chatham to Pittsfield, covering a much longer distance than the road mileage.

It is only a few miles to the hamlet of Nassau, a quaint little village near the border.



Sketch of Main Highway Between Albany, N. Y., and Pittsfield, Mass.

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line between New York and New England, and partaking somewhat of the rural characteristics of each. If you stop at a certain old store in this place to make inquiries or to buy something, as we did, you will probably see a sign on the wall, "No swearing or loud talking allowed in this store." Nassau is a local hub of routes, with connections to a lot of small places, of which you probably never heard before. For Pittsfield, go straight through on the main-traveled road; soon signs pointing the way to various Berkshire Hills places begin to appear, and the whole section

A Scout Taking a View From a Side Road Near Lebanon Springs, N. Y.

is covered with a veritable maze of cross-roads.

A NETWORK OF GOOD ROADS.

Excellent macadam extends all the way from Nassau to Brainard, and thence along the Lebanon Valley R. R., now a part of the Rutland R. R. system; in the vicinity of Brainard station, the macadam connection from Troy comes in from the north, and the routes coincide for the balance of the way to Pittsfield. There are four of the Lebanons, West, Center, New and the Springs, all located along the same valley in the mountain range which separates the valley of the Hudson in New York State from that of the Housatonic in Massachusetts; the entire range is heavily wooded, insomuch that the view of the way ahead is often lost, as the road winds its way through a bit of forest.

Signboards become more frequent as you approach the State line; usually they are not made of fancy materials, but are in the main correct, and that is what the traveler principally needs. There are a few deserted homes in this fine country, which would seem impossible were the evidence of one's eyes not the full proof; probably, however, the soil is not as productive as in the more level sections. The Lebanons are noted far and wide for their well-kept condition; many of the hilltops are cut into square or rectangular lots by well-built stone walls or fences.

NEARING THE STATE LINE.

As most of the signs read to Lebanon Springs, the stranger riding into New Lebanon will often think he is at the "Springs"; but they are a short distance to the north, away from the main road between Albany and Pittsfield. You are still in New York State, but the view ahead takes in also a wide stretch of Massachusetts—every road an aisle of color in mid-summer, partaking of the depth and richness which distinguish the Berkshires, even more than the valleys and hillsides of the Empire State.

About half way between New Lebanon and Lebanon Springs, there is a very prominent fork in the road—the left going into the "Springs," and the right to Pittsfield by the State Road through Shaker Village. It will take only a few minutes to go to the Springs, once one of the most fashionable summer resorts of the country; and in case one desires to spend the night in the vicinity, a fairly good hotel will be found where motorcyclists are welcome; the rates are about half what they are in Pittsfield. Going into the Springs take the left-hand road, bearing left into the village to "Columbia Hall."

The drives in this neighborhood are unsurpassed, and include pleasant runs to Queechy Lake, to Williamstown, Lenox or Stockbridge, or over the hills and mountains that encompass the locality in almost every direction. The distances to the most important points are as follows: Queechy Lake, 4 miles; Pittsfield, from 7 to 10 miles, according to the route taken; Lenox, 12 miles; Stockbridge, 17 miles; Canaan, 7 miles; New Lebanon, 2 miles; Hancock, 5 miles; Shaker Village, 2 miles; Summit of the Berkshire mountains, 3 miles; Williamstown, 20 miles; Great Barrington, 21 miles.

Lebanon Springs is not only one of the oldest summer resort in the United States, but at one time it divided the premier honors with Saratoga.

CLIMBING MT. LEBANON.

From the Springs to Pittsfield there is a choice of two routes, one unimproved and quite difficult, over the Tatonic range, and Lebanon mountain in particular, and the other one reached by returning to the forks at New Lebanon and going around by Shaker Village. In choosing the former for the sake of the less well-known view, and possibly more adventures, turn up past Columbia Hall and go directly out over the strong iron bridge spanning one of the deepest narrow glens to be found in this part of New York State. Less than a mile out on this road a granite post shows the boundary line between New York and Massachusetts.

This road over the mountains while much poorer, is three miles shorter than the one around by Shaker Village, but it is not recommended for average touring; we continued on it somewhat because we had started this way and were unable to turn back easily. Stopping a moment at the summit (2,624 feet high), and the clearer for the additional height and looking back, you see the opposite range all distance.

THE ARRIVAL AT PITTSFIELD.

After passing the summit, you descend gradually and enjoyably into the cradle of hills of which Pittsfield is the center. The road becomes better, and signs of civilization are not long in making themselves seen. Little incandescent electric lights extend almost to the foot of Lebanon mountain on the eastern side, enabling the tourist who might make this trip late in the afternoon or in the early evening to do so advantageously. In time the homes of the chief city of the Berkshire Hills grow in number; and before you know it, you are actually drawing up just west of the B. & A. R. R. station and swinging left into the business and hotel district of the city.

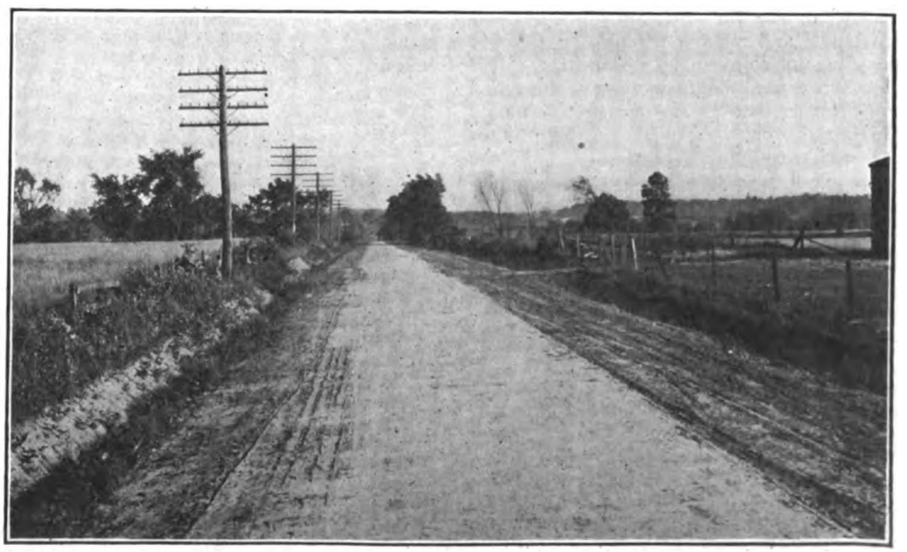
"Good enough for one forenoon," remarked my companion as we rode up to one of the hotels. Then I had a half-day's business to attend to, while the other motorcyclist decided to spend the afternoon in a side trip from Pittsfield to Lenox, Stockbridge and Great Barrington. That night we met in Pittsfield, and the following morning we started on the return trip to Albany. This time we decided to forego the mountain-climbing experience of the day before in order to take advantage of the magnificent State road built over the Lebanon or West Pittsfield mountain.

ON THE RETURN JOURNEY.

The mountain section of this road is about six miles long, with a grade for two miles of about 5 per cent., the balance probably being from 6 to 8 per cent., constructed after the usual practice in Massachusetts State roads. It is as fine an example of mountain road building and engineering as one will find, at least in the eastern part of the United States. Especially is this true of the western slope, where it is constructed on the side of the mountain.

The ten miles back to New Lebanon were made in less than half the time the seven miles over the mountain took the day before. Through this section occasional picturesque old stone houses suggest some of the suburbs

(*Concluded on page* 43.)



View of the Highway East of Schodack Center.

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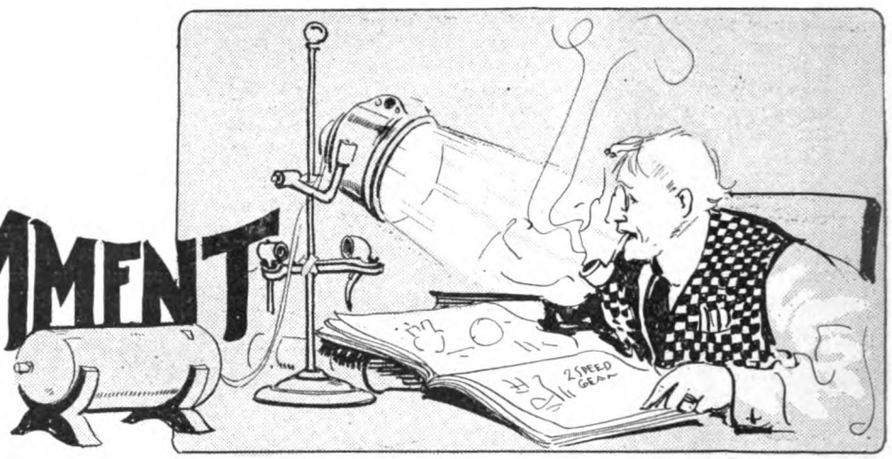
KINKS & KOMMENT

by "COURIER"



SINCE writing the latest batch of Kinks, I have received a letter asking for the address of a maker of kerosene carbureters from a rider who seems to have had trouble by getting something like the fuel I mentioned. Well, the answer that I have to give is that there isn't any make of kerosene carbureter that can be put on a motorcycle motor that will give satisfactory results, although for stationary engine work there are several good mixing devices for such fuel. But stationary engines are designed to work at approximately one speed all the time, and the work of load cannot be put on them till they have been well "warmed up." As soon as the speed varies, the mixture becomes too rich, and as kerosene contains more carbon than gasoline, the sooty deposit soon becomes a regular "fur" inside the cylinder and on top of the piston. When the lubricating oil is burned also, the deposit may have to be chipped away, which is more the work of a geologist than a motorcyclist.

WHEN KEROSENE CAN BE USED.

IN a carbureter with needle-valve jet adjustment, kerosene can occasionally be used after warming up the motor on gasoline, but the carbon will collect in a surprisingly short time and the motor will run hot also. I have tried this system myself several times for experiment, and once because I had to, when a smart Aleck in a country store played a joke on me by filling up the tank with kerosene. I traveled several miles before I got "hep" to the fuel that was bronzing my exhaust pipe and making me ride bow-legged to keep my knees away from the heat of the motor, but I finally struck an air valve and jet adjustment that caused me to touch only the high spots on the road. I used a lot of oil to assist cooling, but when I took the cylinder off I was reminded of my visit to a gas works, and used a sharp scraper to get rid of the flinty carbon inside the chamber. What enabled me to get home was the hood on the primary air intake through which I could draw sizzlingly hot air for the mixture, and which I had never used in warm weather before. I have tried the experiment since, but was never able to get the proper adjustment on the jet again.

On another carbureter, with a hot air jacket around the mixing chamber, I obtained middling results, but the jet opening was too small and could not be adjusted. As far as the compression and dimensions of the average motor is concerned, it is suitable for use with kerosene, but only under the conditions mentioned above. I hardly think that many will cast aside the naphtha-gasoline now thrust into their tanks for the cheaper but dirtier coal-oil of commerce. But there is big money in a kerosene carbureter that will thoroughly vaporize all parts of the fuel, and pretty soon some inventor will give us one, I hope.

THE FUEL SCARE.

LOOKING over the various motor trade publications I note the effect of D. R. Hobart's article on "Alternative Fuels," recently published in this journal, as an eye-opener for those who were resting serenely in the belief that the petroleum resources of this country of ours were inexhaustible. When motors did not run well, the carbureters were blamed, as usual, but when it was found that only Texas *gasoline* was obtainable and that naphthas were generally sold instead, the other journals started a scare and drove the thing into the ground. Now it turns out that three-fourths of the distillates of petroleum (gasoline, naphtha and kerosene) are sent abroad, where the prices are higher than at home. Well, cheer up, brothers, when the price of gasoline is equal to that now paid in England, we shall have most of that three-fourths remain here so as to save shipping charges for the oil magnates, and barring this trifling inconvenience to the pocketbook the fuel question will be solved for several years to come. Otherwise I am afraid that we will have to develop some other fuel, or go back to the push-bike. Think of hearing an announcement like this at a track: "Owing to there being only three gallons of fuel obtainable, the ten-mile pro event will be changed to a two-mile handicap and only three starters will be allowed to enter."

THE TRIAL THAT FIZZLED.

ALAS, for attempts at scientific competition! A bunch of riders belonging to a club which shall be nameless, decided on a carbureter-adjusting contest to settle a bet, and all using the same model of carbureter, had the adjustments changed by one of the members. At the start, all but one got away, but not one of the remaining five got a mixture good enough to do more than crawl, and the winner had to pedal the last two hundred yards to cross the line and fell exhausted from his efforts. The last man made the best time for the two miles, but the speed could easily have been beaten on a low-geared bicycle. Bets were declared off and the bunch straggled home, and if any person wants to start something, he has merely to say "carbureter adjustment" and take the consequences. They have since studied and applied the maker's directions, but no more trials of that nature for them. The funny part of it was that a half turn of the jet needle-valve either way would have fixed up most of them for a first-class mixture and a good fast pace.

Speaking of mixtures, I suppose it is the lot of most riders to have been astride a stubborn motor, but I think that fixing up a friend's bus with mixture away off and valves out of time has been my fate more times than is really necessary. I was at a dirt track last season, where an ancient but normally speedy single was hauled out to compete and it was up to me to time and adjust it. After retiming the valves and magneto, a fine mixture was obtained by turning a jet valve at the bottom of the carbureter, but unfortunately, as the rider finished the circuit of the track, the cover plate and gears in the valve train fell out, through all the screws not being put in, and the whole job had to be done again. This time I got the valves and ignition O. K., but for one good half-hour no proper mixture could be obtained. The air came through holes covered by little strips of brass which acted as reeds and rose as the suction increased. Finally I had to take off one of the strips, and the motor performed well at over 35 miles per hour, but bucked terribly as the speed was reduced and finally sheared off one of the supporting bolts and fell outward. It then had to be withdrawn, fortunately for all hands. But two weeks ago I met a rider with a similar bus stranded beside the road and in despair, and remembered the flapping little strips and the trouble incident to fixing up that other carbureter. Being soft-hearted, I went through the dismounting performance once again and fixed the strips with a pair of pliers, assembled the contraption and bade the rider God-speed as he went off. A mile or two further on I met him again, and he "jumped" me for having reduced the speed of his bus in my adjustment. I volunteered to tow him to the nearest garage, but was further abused, and so I left him. When a rider meets another of this calibre, the next unfortunate encountered usually is passed by in silence, as no one likes to be hammered after doing a favor.

A WORD FOR THE FORECAR.

A LETTER in the "Told Among Friends" department in the last issue is interesting in bringing up the tricar or forecar again. I drove one of the old 1906 tricars for several

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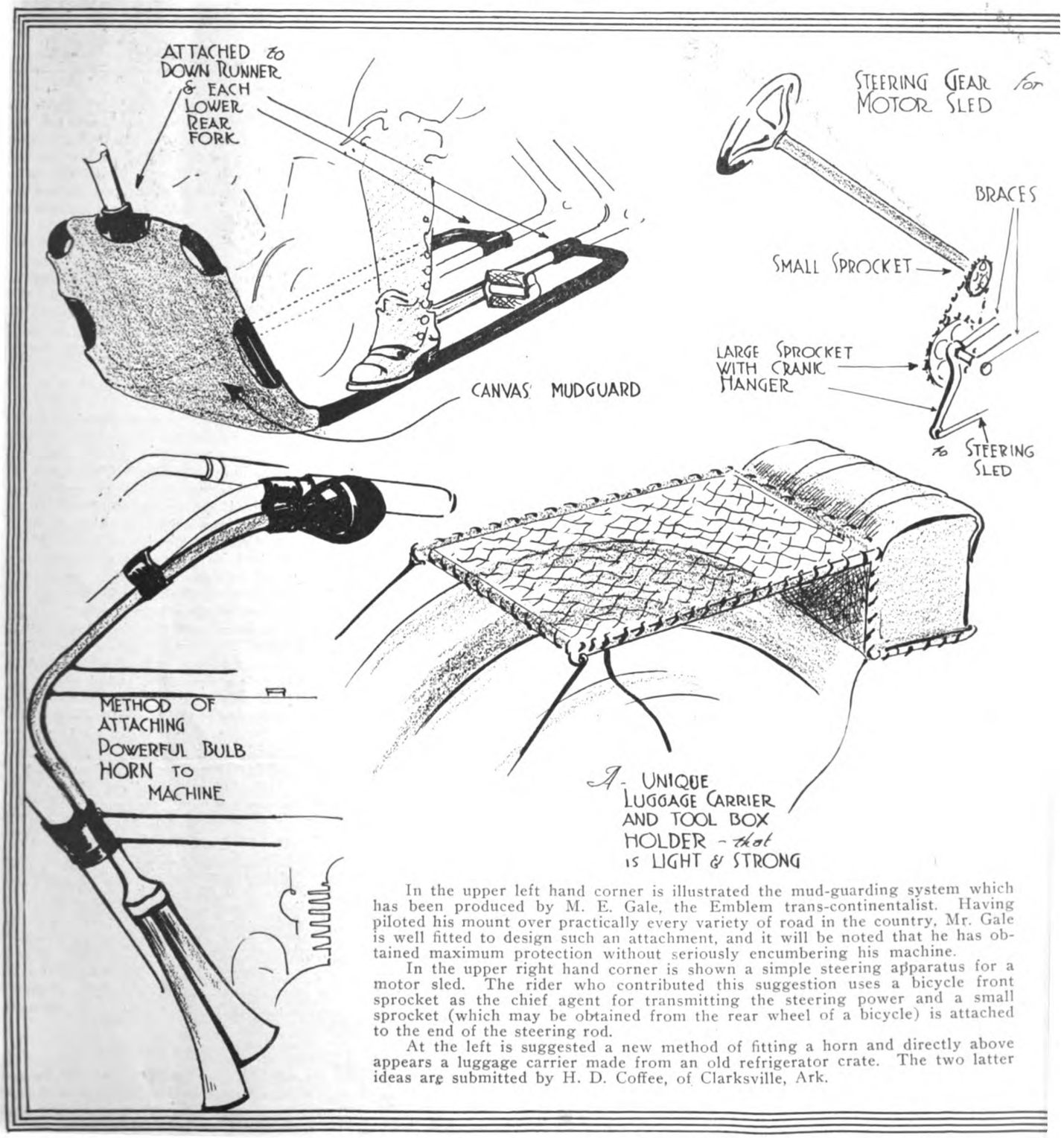
thousand miles during the "boom" and feel competent to speak about this form of passenger-carrying bus. The faults that killed the tricar were poor ignition, poor lubrication, poor springing and high prices. The word tricar is a relative term only, except in referring to a three-wheeled motor vehicle. In 1906 there were 3-horse power single, air-cooled tricars with no variable gears, and there were 9- and 12-horse power twins with three speeds forward and a reverse, and car control. The big engines were water-cooled, too. But the prices were monstrous, $700 for a 9-horse model for example. It is true they were speedy, but the driver had all kinds of trouble with batteries and coils, and the oil did not always find its way to the bearings. Abroad there are quite a number of these big tricars transformed into cycle-cars, with improved ignition and other features running finely. But the average tricar for the present day would be a 7-8 twin motorcycle with detachable forecar.

TRICAR CHARACTERISTICS.

THE tricar, fitted as just mentioned, has several peculiar characteristics, among which may be mentioned the necessity of the driver's howling to the passenger to make himself understood. This is inseparable to any tandem-seated arrangement where two occupants are any distance apart. Ag unless the track of the steering wheel is l by some inches than the standard 4 feet inches gauge of vehicles, the wheels will in the ruts and may be difficult to get out heavy going. The driving wheel is alwa however, on well packed road and th should be no lack of traction. The "pu of the tricar is directly forward instead from one side, as when a sidecar is fitt As to cooling, a fan will do all that is nec sary, and this fan can be driven from the gine pulley. Brakes can be put on all th wheels, and the whole vehicle can be spru



In the upper left hand corner is illustrated the mud-guarding system which has been produced by M. E. Gale, the Emblem trans-continentalist. Having piloted his mount over practically every variety of road in the country, Mr. Gale is well fitted to design such an attachment, and it will be noted that he has obtained maximum protection without seriously encumbering his machine.

In the upper right hand corner is shown a simple steering apparatus for a motor sled. The rider who contributed this suggestion uses a bicycle front sprocket as the chief agent for transmitting the steering power and a small sprocket (which may be obtained from the rear wheel of a bicycle) is attached to the end of the steering rod.

At the left is suggested a new method of fitting a horn and directly above appears a luggage carrier made from an old refrigerator crate. The two latter ideas are submitted by H. D. Coffee, of Clarksville, Ark.

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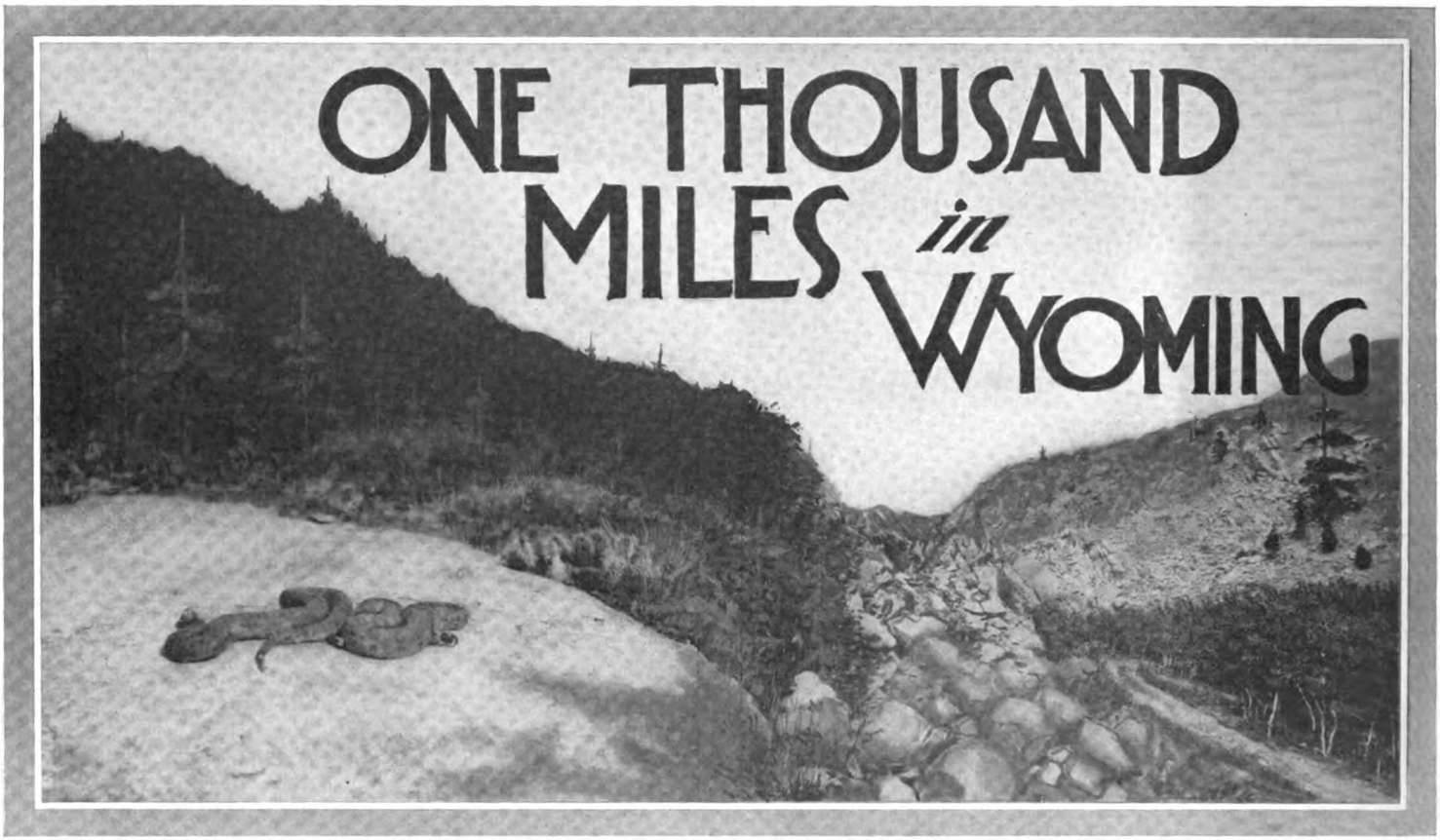

A 1,000-MILE trip through Wyoming is not often heard of, probably for the reason that very few are made," writes R. B. Wheeler, who recently completed such a trip by motorcycle with his wife as a tandem passenger. "This, however, is not due to any lack of good roads or fine scenery," he continues, "for the natural beauties of Wyoming compare favorably with the best in the country." Mr. Wheeler, who made his trip on an Eagle, records his impressions of Wyoming as follows:

"The wonderful development of the country between Cheyenne and Rawlins, Wyoming, and from these points east and west, attracts the attention of the motorcyclist as he traverses the continental highway that is being constructed by the enterprising citizens living between the above-mentioned cities. For two weeks I traveled along this route and also visited other interesting towns, valleys and mountain gorges north and south of the main route. It may seem strange, but I found the inhabitants in the interior as deeply interested in good roads and improvements as those living along the National Highway. The latter extends along the U. P. R. R. right of way for a distance of more than 200 miles.

IMPRESSIVE SCENERY.

"Fine scenery is almost continuous from Cheyenne to Rawlins, and even beyond these points. Along this route from the main highway I viewed the most grotesque and magnificent valleys, springs and dales to be found anywhere in America. Several points which I passed within a radius of fifty miles of Rock River resemble the most beautiful scenery of Switzerland.

"This road is destined to be a national highway. Photographs of the scenery and the perfect construction of the roads, as well as the many wood and steel bridges and culverts, are being taken daily by touring motorists. These will find their way into the journals and ultimately reach the hands of the National Highway Bureau. During and after the Panama Exposition in San Francisco this highway is bound to become a prominent link in the transcontinental route.

"The citizens of the towns along this newly-built road are wide awake, and garages have been erected at intervals of from twenty-five to thirty miles. All this is being done with a view to furnishing supplies and accommodations to the tourist and thus making Wyoming an attractive touring district. One of the natural resorts of the States, and the most important, is the celebrated Yellowstone National Park. The section referred to in this article would necessarily be traversed in a trip to Yellowstone Park were the rider coming from the east. For a stretch of 400 miles garages are so plentiful that the motorcyclist should experience no inconvenience.

"Both motorcyclists and automobilists have learned by experience that the only drawback in high altitudes—aside from occasional bad roads—is carbureter trouble. This may be easily remedied by simply cutting down the automatic air and increasing the flow of gasoline, which can be done almost instantaneously. It should be said for this entire section that the hotels along the route are of the best type and that the rider will receive first class accommodations.

AIDS TO THE CAUSE.

"At Rock River I met President John F. Pierce, of the Good Roads Club; S. J. Morris, who has brought to bear much influence for the construction of the road; L. C. John, nominee for Congressman, and many others who are active in the good roads movement. President Pierce is backed by more than 200 members of the Good Roads Club, who have constructed sixty miles of road from Laramie to the Carbon County line.

At Medicine Bow I became acquainted with August Grimm, who is responsible for the building of the sixty-mile road from the Albany County line to Rawlins. These two energetic and far-seeing men—Pierce and Grimm—have inspired others to build additional roads. Mr. Grimm is the proprietor of the far-famed Virginian Hotel, located at Medicine Bow, and Mr. Pierce is general superintendent of the Diamond Cattle Company.

In traveling through this section the motorcyclist is brought close to nature. The Laramie, Rock River and Medicine Bow valleys are veritable Nile basins. Here are raised abundant crops of oats, wheat, barley and alfalfa, which deck the valleys and plains. These not only assure prosperity to the country, but add to the beauty of the general layout. Here, too, the rider sees thousands of cattle on the hillsides and hundreds of sheep grazing on the plains and in the valleys. The best kind of fishing is afforded in the valleys, where many small streams are found swarming with trout and other finny denizens. Sage chicken and other kinds of game are also plentiful, while antelope and elk are often seen and have become almost domesticated through their association with the herds of sheep and cattle.

"Towns in this section are not behind the times. I noticed with surprise the up-to-date attitude of people in even the smaller places, and in some of the larger cities there is all the activity one could desire. The district is one of great fascination for the tourist, and motorcyclists should not overlook it."

SALT LAKE M. C. PROGRAM

TWO big events are scheduled by the Salt Lake City (Utah) M. C. for the coming season. On Decoration Day the club will hold a road race, and a hill climb is also scheduled.

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BUSY HARTFORD SHOW

MOTORCYCLES AND THEIR ACCESSORIES WERE EXHIBITED TO GOOD EFFECT IN CONJUNCTION WITH MOTOR CARS AT ANNUAL DISPLAY IN CONNECTICUT CITY—INDIAN, THOR, FLYING MERKEL, POPE AND EXCELSIOR MODELS MADE UP MOTORCYCLE SECTION, BUT SIDECARS WERE NOT SHOWN FOR LACK OF ROOM—STRIKING DECORATIVE THEME A FEATURE OF SUCCESSFUL EXHIBITION, WHICH PROVED A REAL BOOMER FOR MOTORCYCLES IN NEW ENGLAND.

MOTORCYCLISTS of Hartford, Conn., present and prospective, had their informal introduction to several of the 1913 makes at the Sixth Annual Automobile Show, held in the new State Armory last week. Five brands were exhibited as follows: Indian, Thor, Merkel, Pope and Excelsior.

Arranged along both sides of the immense drill shed, the motorcycle booths were so prominent that they could not well escape the eye of the most casual visitor. Accessory people also were "wall flowers," but very active ones, while cars occupied the center of the floor. No sidecars were shown, undoubtedly for lack of room, as none of the motorcycle spaces were large enough to accommodate a car attached to a machine.

At the Indian booth three machines were shown—"4" regular, "7" regular and "7" T. T. two-speed. E. B. Connell, who has just emigrated from Pittsburg to preside over the local tepee for George Maslen, was in command, assisted by Lewis Beckwith and H. E. Merriman. Connell had a list of 27 names booked for demonstrations on Monday night.

A few spaces down the row was the camp of Finch and Hayes, who handle the Thor and Merkel. They showed "4" and "7" Thors, single-speed, chain-driven, and a Merkel "7," also of the single speed type. A display board of Merkel parts also was an attraction here. Willis Hayes was boss, and his aids were C. H. Van Doren (a Merkel traveler), Merrill Mann and W. C. Holcomb.

Next door to Finch and Hayes was the Pope, which of course was right at home, as the general offices are located in Hartford. The Pope "Big 4" belt-drive, 3 h. belt single, and "7" chain twin, were on display. Genial F. W. Starr was chief preacher of Pope doctrine, and the supporting ministry included C. H. Clark, F. L. Merrill and G. A. Carey.

Across the hall, on the other aisle, was the Excelsior stand. The Eastern Cycle Company are local agents and showed "7" chain and belt twins, and a "4" belt single. A single cylinder engine partially disassembled was also shown. The show staff here consisted of D. Marholin, F. A. Clifford and Morris Madden.

The total number of motorcycles shown was 12, but it would probably have been twice as large if all the local dealers had come in and the exhibitors had been able to obtain more space. All the dealers exhibiting reported a healthy interest in machines and good prospects.

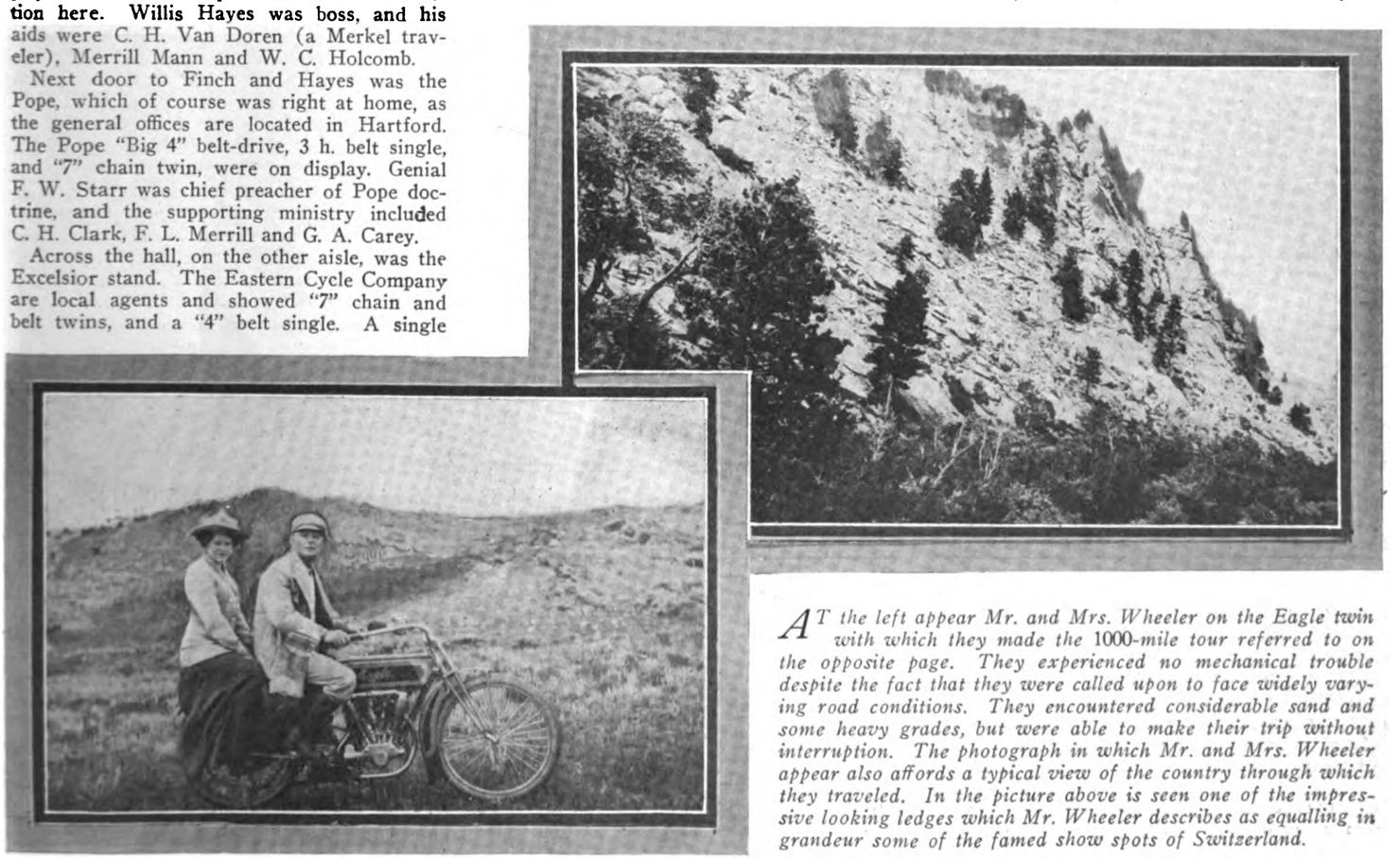
A significant feature was the extensive lines of motorcycle accessories shown by the automobile supply houses, indicating that they are reaching this profitable business. The accessory exhibitors showing motorcycle sundries were: R. D. & C. O. Britton, Universal Auto Company, Post & Lester Company, Charles E. Miller, Perry Motor Supply Company, E. J. Todd Rubber Company, XXX Auto Accessory Company and Windsor Locks Auto Company. The latter has the Pope agency, but showed no machines.

From a decorative standpoint, the show was the best ever held in Hartford. The scenic effects were striking, the general scheme being an Indian jungle layout. At the entrance the visitor was confronted by a vicious-looking tiger, crouched on a pedestal high above the floor, and seemingly ready to spring. In the center of the floor a pergola was erected where the band was stationed. The conventional automobile show "blue bunting," studdded with gilt stars, concealed the roof girders, while four immense trellis work arches of electric bulbs, extending from either wall to the roof, constituted the central illumination. These were supplemented by hanging arc lights. The walls were dressed in white, red and orange bunting, and canvas panels of jungle scenes carried out the spirit of the decorative theme. The piece de resistance of the whole color scheme was the striking canvas which covered the rear end of the hall. This specially painted curtain depicted an Indian prince's palace and gardens, and was a handsome specimen of the artist's handicraft.

SUNVILLE STAFF.

AT a recent meeting of the Sunville M. C., of Pueblo, Col., officers were elected as follows: F. C. Chinn, president; R. D. Atterbery, vice-president; George A. Turner, secretary; George J. Von Gundy, treasurer; A. Parson, captain; Ebert Johnson, first lieutenant, and R. L. Fleming, second lieutenant. L. H. Case and F. J. Herman were named directors.

AT the first meeting of the newly organized Plaza Motorcycle Club, of New York City, R. King was elected president; G. Ochs, treasurer, and P. Bilse, secretary.



AT the left appear Mr. and Mrs. Wheeler on the Eagle twin with which they made the 1000-mile tour referred to on the opposite page. They experienced no mechanical trouble despite the fact that they were called upon to face widely varying road conditions. They encountered considerable sand and some heavy grades, but were able to make their trip without interruption. The photograph in which Mr. and Mrs. Wheeler appear also affords a typical view of the country through which they traveled. In the picture above is seen one of the impressive looking ledges which Mr. Wheeler describes as equalling in grandeur some of the famed show spots of Switzerland.

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TOLD AMONG FRIENDS

WHEN I MEET A CHEERY HELP-FUL WORD IN MY TRAVELS . . . I WELCOME IT, GIVE IT A COMPANION- IF I CAN AND PASS IT ON. . . .

Carlyle

THE ANNUAL SHOWS.

EDITOR.—A question has been raised of late relative to the advisability of holding one national motorcycle show annually at Chicago, and in this connection we believe that if any shows are to be held there should be one in New York. We do not think much of motorcycle shows being overshadowed by the automobile exhibits as they have been in the past, and as they were to some extent in the Grand Central Palace in New York this year. The motorcycle exhibit in connection with the automobile show affords a certain amount of good publicity for the single-tracker, but the motorcycle should have a fair chance as to position, etc., in order to enjoy such benefits.

The recent New York show was, to the writer's mind, unsatisfactory in this respect. As far as the writer can find out half the people who wanted to see the motorcycle exhibit went to Madison Square Garden, where it was natural to suppose the motorcycles would be found. In the exhibition of motorcycles the dealer need not be considered as much as the public; the dealer will go almost anywhere, but the public must be catered to. If we cannot obtain the desired results by hitching to the automobile show the writer believes we should cut loose from it, as we are usually overshadowed.

In regard to holding the shows earlier, we believe it would be a good idea to have them in December.

New York City. F. A. BAKER.

THE CLUTCH LOCATION.

EDITOR.—Under the above head I noticed in the issue of February 6 a most interesting letter from George M. Johnson. As a rider of some experience I think that he is rather unfair to clutch control positions other than that of the lever on the frame or in the tank position as he calls it. I have ridden machines fitted with all of these forms of control and personally prefer the handlebar location to either of the others. There is a good deal to be said on both sides about all of these locations, and some things for and against them Mr. Johnson may have probably omitted through forgetfulness.

Regarding the foot-pedal, I feel that Mr. Johnson has not ridden machines with the clutch so operated to any extent, and certainly not "single speeders," otherwise he would hardly have dismissed this location by saying that it is seen at its best only when the machicne is equipped with a two-speed. I fail to see that because a means of control is so rarely fitted, it should be condemned off-hand, and should be given the scant consideration that he gives it. Fitted with a heel-and-toe pedal, a rider can with very little practice do all that another rider with the hand lever can, and at the same time keep his hands on the grips, which latter he cannot do with the hand lever. Automobile clutches are operated by pedal and the method seems to be very satisfactory, whereas the hand lever, such as was on the old Winton and Packard cars, has disappeared entirely. A disadvantage in the pedal control is the difficulty in working the pedal when making a running mount.

The hand lever is undoubtedly positive in action, but the leverage may cause the rider to effect too rapid an engagement of the clutch in his anxity to get away quickly, for example. This, coupled with the reprehensible practice of slipping the clutch to get reduced speeds, is one of the chief causes of clutch trouble and gives joy to a lot of repairmen. The usual position of the hand lever on the left side of the tank makes it awkward for the rider to make a turn to the left and operate his clutch properly, as his left hand and arm is pinched between the handlebar and the tank as he turns the bars to the left. With a short lever, this is eliminated, as the rider reaches around or under the bars to get hold of the clutch lever and his hand is not caught.

I thoroughly agree with Mr. Johnson as to the twisting-grip control of the clutch, although I cannot say that I have ridden a machine so fitted for any distance. His remarks on the finger lever under the grip do not apply to a properly fitted wire mechanism, with a spring powerful enough to disengage the clutch when the lever is released and with a ratchet on the lever for retaining the latter in any desired position if the rider desires to occasionally slip his clutch for extended periods. Regarding breaking wire, I have never been troubled with this, as I took care to have good tough stock within the sheath of the control and not bargain-counter piano-treble cable. Most wire controls are fitted with some means of taking up any stretch, so that the writer's statement, I feel, is slightly overdone. There being no wires on a hand lever control there are naturally no such troubles as he has experienced with the finger lever.

The right-hand position of the throttle with the clutch operated by the left hand seems to me to be absolutely the proper one, and I agree with Mr. Johnson that any other arrangement is very awkward. There are quite a number of makes on motorcycle which fit the throttle on the right grip regularly, and almost any machine can have the controls changed about to put the spark on the left and the throttle on the right. I might add, in conclusion, that I am not booming any particular make of motorcycle.

STANLEY ROSEBERY.

New York, February 13.

MUFFLER TESTS

EDITOR.—I am a subscriber to an English motorcycle journal and of late I have noticed many references to muffler tests, some of them under direction of the British Auto-Cycle Union. What has brought about all this activity relative to silencers in England? Are their mufflers less efficient than ours, or do English riders and officials demand a closer approach to silence than we do? If it is possible to improve the standard muffler materially, why are we Americans not making efforts to hit upon new designs that will reuuce the noise of our exhaust without hampering our motor? I am a strong advocate of the silent motorcycle, and until I began to read the English articles recently I believed that my machine was as quiet as could reasonably be expected. Now I am a bit at sea. Are the Britishers more particular than we are about noise, or are English designers behind us in muffler constructing and simply trying to catch up?

BUFFALONIAN.

[We are informed that there is no appreciable difference between the silencing effects of English and American mufflers. In mechanical operation the best British machines are practically noiseless, but we are led to believe that the average rider in England pays less attention to the noise of his exhaust than the motorcyclist on this side. Some of the new designs of English silencers are five times as complicated as the most intricate American muffler, but whether they will justify the ingenuity worked into them by their inventors is another question. A number of new British silencer designs are illustrated on another page.—Ed.]

IN the accompanying photograph appear a number of members of the De Luxe squad of Indianapolis. John Merz is shown at the extreme left. Mr. Merz is agent for the De Luxe in Indianapolis and he heads this party on all its runs.

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THE "BOB" SCOTT DISPUTE

EDITOR.—Having been asked by the directors to make a clear and concise statement of the Robert Scott trouble with the Toronto Club, I shall endeavor, in the following, to place the facts as clearly as possible along the lines taken up by the directors and as viewed by them.

In view of the fact that there has been so much discussion in the magazines in reference to this situation and also as these troubles ultimately led to the suspension of the Toronto Club, the views of the Board of Directors will therefore be interesting in fairness to all parties.

We all know Scott—as a rider—to be one of the cleanest and fairest on Canadian tracks.

At the Dunlop race meet in Toronto Scott's engine was protested by a member of the Toronto Club. A prominent member of the Toronto Club was referee that day and the president of the same club was chairman of the Competition Committee at the time. The protest was accepted. The engine was ordered down and the official measurers of the Toronto Club were the measurers appointed by the chairman of the Competition Committee to inspect the engine. After the inspection they reported in full to the chairman. Their report, however, was of such a nature that the chairman, who was also the president of that club, could not find enough reason to suspend young Scott, as he assured the boy that if he were to put a piston of the solid type in his machine that he would be all right again.

The Toronto Club wanted Scott to ride under protest at their meet, which they held the Saturday following the Dunlop meet. This he refused to do, so that he then received assurances that his riding would be satisfactory, with the one change being made in his engine.

Scott's opinion of his reinstatement was expressed in his statement made to the writer, that they were "afraid that he would not be riding in their faces if the suspension stood and that they needed him to complete their program."

The writer personally recommended to Mr. Johnston that if anything at all had been found that showed Scott to be tampering with his engine in any way that he be suspended immediately. This Mr. Johnston practically refused to do, stating that he had been hard enough on the boy in withholding his trophies won at the Dunlop meet.

As to the second, or Toronto Club meet, Scott went out and lowered all Canadian records and again cleaned up the slate with the engine changed to meet the conditions laid down by the Competition Committee and the officials of the Toronto Club.

Scott was advised that he had won the cups; was allowed to take his engine from the track; the donators of the cups were advised that he was the winner and, in fact, one of the trophies was turned over to Scott, being later secured again by the Toronto Club by their visiting the Toronto Motorcycle store, where the cup was on exhibition, and taking it away for the purpose, as they stated, of having it engraved.

Then Scott learned that they were going to keep the cups from him. Bear in mind that this action was taken after Scott's machine had been in the hands of all the officials; after it had been taken apart, examined, put together again and passed as meeting with requirements, excepting that an undrilled piston must replace the one drilled. This all happened in the early fall. In December, after Scott had fully made up his mind that he was not going to get these trophies from the Toronto Club, he appealed to the C. M. A. for its assistance, as the races had been run under its sanction and guarantee. He advised the C. M. A. that the Toronto Club had refused to turn over his prizes.

It was then learned upon investigation that the Toronto Club had assumed its own authority for withholding of the prizes, and that there had been absolutely no action taken by the referee or the Competition Committee.

As the Board of Directors deem it necessary that riders risking their lives, burning up gasoline and oil, wearing out tires and paying repair bills and traveling expenses must be given just as much protection as the club or promoters who simply pocket the profits of the race meet, the board then ruled that Scott's trophies be handed over without delay, giving as the reason that if every club were allowed the privilege of withholding prizes at its pleasure the riding situation would soon develop into a farce.

Toronto Club delegates then realizing that their club had taken too much upon itself in this instance, entered a protest against Scott's engine. Their only evidence, however, was verbal and of a nature entirely impossible to take action upon. It was also pointed out that Section 1, Article 17, of the racing rules, states distinctly that any protest against a machine must be made within 30 minutes after the conclusion of the last race. The protest of the delegates was then thrown out.

Another protest was then entered by the Toronto Club for Scott's participating against riders not affiliated, at Montreal. As the responsibility for this trouble was traced to the referee and Competition Committee this was also defeated.

Another protest against Scott was then entered by the Toronto Club on general grounds and was defeated.

On January 18 last, at the meeting of the directors, a complaint was again received from Scott that the Toronto Club had not complied with the directors' instructions.

The directors then passed a resolution giving the Toronto Club until the evening of Saturday, January 25, to return the cups. The Toronto Club then wrote Scott offering to return the cups, with the proviso that as a bond he was to give $600 cash. As these cups are worth considerably less than $100 and this being the first time offered there was no sentimental value other than that they were in future to stand for the Ontario Championships. The cash bond was for no other purpose than to defeat the rulings of the C. M. A. and to keep Scott from obtaining the prizes. In view of the fact that Scott is a lad of 18 years, working for some $15 a week and supporting himself, he could not meet the requirements and again drew the matter to the writer's attention on December 25.

Upon referring the question to Mr. Cunningham, of London, the new Competition Committee chairman, he ruled under Section 6, of Article 14 of the racing rules, that a $200 property bond would be sufficient.

The writer then got Mr. Johnston, president of the Toronto Club, on the telephone and endeavored in every way possible to get him to make arrangements to clean up the trouble and save the necessity of carrying the matter as far as was eventually necessary.

It was even offered to hold the question over for another twenty-four hours, but he advised that this would be useless. He stated that he was now through and that it was up to the C. M. A.

A telephone vote was then taken of the directors and outside of Mr. Johnston they were unanimous for suspension.

Mr. Johnston called the writer on the telephone on the following Monday asking that the suspension be withdrawn. The impossibility of this was explained to him, but an offer was made that if the Toronto Club would clean up its end of the difficulty the writer would immediately call a special meeting of the Board of Directors to look after the C. M. A. end and see if the suspension could not be raised. This Mr. Johnston refused to do.

Scott, of course, has not received his trophies, but the riders have received assurances that the C. M. A. will stand with them against unfair conditions.

K. R. SPENCER,
Hamilton, Ont. President C. M. A.

NEW WINDSHIELD.

EDITOR.—Now that many of the boys are out on the road facing wintry blasts, not to mention snow and rain, I send you this photograph of my new windshield in position on my two-wheeler. The shield

itself is of brown khaki cloth with a celluloid window 16 by 10 inches. It is 28 inches high and 20 inches wide at the top, tapering down to fit the bars. The frame is of ⅜-inch steel. I find that riding against the wind is very pleasant with it up and seems to cause practically no difference in the running of the machine. I have obtained a patent on it, more as a precautionary measure than anything else.

Trenton, N. J. JAMES MANNING.

FROM A SHOW VISITOR.

EDITOR.—You may be surprised to learn that I am a subscriber to MOTORCYCLE ILLUSTRATED despite the fact that I neither own a motorcycle nor ride one that belongs to somebody else. What's more, I am a full-fledged enthusiast, and I must say that my visit to the Chicago show was a most enjoyable experience. I was forced to marvel at the wonderful array of machines, so compact in appearance and still embodying such possibilities for speed.

I was interested especially in the transmission systems and drew the conclusion that our riders are not making the most of the belt drive. However, I expect to see the belt come into its own. I was pleased to find one prominent firm of belt makers giving a demonstration of the English idea as applied to the combination drive—chain and belt, with plenty of bearing for the belt on both engine pulley and belt rim. I take it for granted that the use of this system would permit of entirely enclosing the chain if desired.

I was much interested in the big twins, and believe the designers have turned out some fine pieces of work. Spring frames also attracted me, but I fear that we may go too far in this direction. Present designs seem to meet all requirements, but how far can we go toward providing a rider with a feather bed without affecting the stability of our mounts? I also gave considerable time to studying the individual motors, and were I a mechanic I would ask no better sport than hooking one of them into a frame and experimenting with it. I spent some time beside Humiston's Excelsior, which looked every inch a whirlwind, but I searched in vain for Humiston. The show was worth the trip and the expense.

Warren, Pa. W. M. ROBERTSON.

UTICA RESOLUTIONS.

EDITOR.—As members of a special committee named by the Utica (N. Y.) Motorcycle Club to draw up resolutions on the death of Charles H. Tessey, first secretary and treasurer of the organization, who died recently as the result of injuries sustained two years ago, we submit the following, with the request that you give it space in your columns. As Mr. Tessey's injuries prevented him from taking an active part in the work of the club he was unanimously elected an honorary member. The resolutions referred to are as follows:

"We, the members of the Utica Motorcycle Club, feel deeply the death of Charles H. Tessey, an honorary member of this organization. As an expression of our sense of bereavement we adopt the following resolutions:

"In the death of Charles H. Tessey we have lost one of our most ardent members. Always deeply interested in motorcycling, it was natural that he should have been one of the founders of our club and its first secretary and treasurer, where his ever-present enthusiasm and activity did much to promote its early interests.

"We recall pleasantly his cheerful manner and kindly disposition which remained with him through two years of illness and would have daunted a less brave spirit. We feel his loss keenly.

"As a further mark of our respect it is ordered that a copy of these minutes be spread upon the records of the club, published in the motorcycling journals, and sent to his bereaved family, to whom we extend our deepest sympathy in their affliction.

"HOMER G. BULKLEY,
"DAYTON ROTH,
"Committee."

"THE POWER PROBLEM"

EDITOR.—In the February 6 issue, on page 93, I read with interest a letter from Warren McGill, who inquired whether the author of the "Novice Rider" had ever bestrode a husky twin, etc. Well, the author of that article and I have ridden quite a number of miles together, on our singles, and both have bewailed the fact that while 4 to 4½ horsepower is ample for our purposes, we have not as yet been able to get *twins* of or near that power, and must perforce have to do with singles. I had my eye on a little, German-made 3 horsepower twin some time ago, but was unable to get one except at a prohibitive figure. Weighing only 139 pounds in riding kit and having had some little acquaintance with speed on four wheels and covered western Europe pretty thoroughly four years ago, I am sure that 3 or 3½ horsepower, with two cylinders, will take me anywhere I wish to go, leaving the big twin for those that desire it. I have never had any desire to pay for any fuel or tire mileage that I did not use, and so incline to the small single and twin. I would like to ask Mr. McGill if he has ever ridden a 3 horse twin fitted with a two-speed gear.

MORGAN DOUGLAS.

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FROM FINDLAY to the FALLS

BY CLARENCE HELMS

DOUBTLESS you will recall the doing of the coy young maiden who said to her lover, "what would you rather have than a kiss," and his reply, "why, two kisses, of course." In a few words this is about the way my partner and I felt. After having made the trip, of which I am about to write, had any one asked us what we would rather "have" than a trip to Niagara Falls, both of us would have promptly replied—"two trips."

At the outset I want to offer a bit of advice relative to a plan which rendered the choice of our route a very simple matter indeed. In contemplation of our trip I went into a short study of automobile guides. After deciding upon the towns we wished to strike I merely made a clipping of the automobile route as given in the guide and pasted the same in a small note book which was easily carried in my inside coat pocket. This afforded ever-ready reference. We not only knew that we were "on the way," but also when and where we were going to land each day. If others would try out this suggestion I dare say it will prove equally valuable to them.

I have owned three motorcycles—first a Marsh, then an Excelsior, and now a seven horsepower Thor. My partner, Bill Weir, rides a twin Indian. It was on a beautiful Sunday morning, September 1, to be precise, that we left Findlay at 6:30. We reached Sandusky, 74 miles, at 11 a. m., and in doing this my new Thor digested less than a gallon of gasoline. We ate dinner there, and then the local motorcycle club—not because of any dislike of us, but quite the contrary—showed us out of town on our way to Cleveland.

VICTIMS OF A JOKE.

Upon leaving Sandusky we learned that it had been raining; therefore on two Vermillion we found plenty of clay mud and the road was much cut up. As we left Vermillion for Lorain we ran across our first humorous incident. I can "see the joke" yet. Evidently my side partner, Bill, has no penchant for "seeing things," while I have (though strictly temperate in my habits).

We saw a grade before us and both started to coast down hill, Bill leading, when all at once I spied a handsome little package daintily tied up with ribbon lying in the road. To me it looked like a two-pound package of bon-bons. I quickly checked the speed of my machine, dismounted and hurried to the prize-package. While it seemed to feel a little heavy for "sweets" I carefully untied it, and when I got inside I found a brick-bat, nothing but a brick-bat, and a red one at that. Somebody's joke? Yes. And it worked like a charm, too.

Leaving Lorain we enjoyed fine roads clear into Cleveland, where we arrived at about 5 p. m. We stopped overnight at the Weddell House, and our machines were stored at the hotel garage free of charge. At all other places we had to pay 25 cents each for their keep. Neither Bill nor I is a seer, so it will not be expected that either of us could read the condition of the streets of a fine, large city in advance. Neither may it seem at all strange that Mayor Baker, of Cleveland, had not written us a special delivery letter descriptive of their famous Euclid avenue. Everyone possessing some knowledge of cities has heard of that long, wonderful stretch of thoroughfare called Euclid avenue, but not all are acquainted with its then outer condition. It had been paved going out and also coming in, but between these two "pavings" we hit an open piece of road that might well be called "terrible."

Weir and Helms.

SOME BAD GOING.

This was Labor Day, September 2. It had been raining, and some 7 to 10 miles out of Cleveland the street had been torn up for both repairing. Here is where we came very nearly turning back for home. With the street clogged by long piles of curb blocks, and paving blocks, and the street car track running ankle deep with mud and water, what could we do? Well, we got our "Dutch up" (this strikes Weir) and finally decided to "go to it." We pushed and fought like Trojans through a mile or more of this mud and water mixture.

A little further on we came to a sewer that had been cut straight across the street. A twelve foot incline was just ahead of us. A light machine would have come in good here, but with the heavy Thor and Indian, both suitcase laden, we were subjected to the extreme exertion of our excursion. We shoved the machines through and out of this sewer, utilizing a handy plank as a runway. Muddy! tired!! and thirsty!!! You remember that I have already stated that this was Labor Day. How strikingly and fittingly named! Did we LABOR? We did!

A short distance outside of Erie, near a small town, we were climbing a hill when we came across an automobile with its front wheels over an embankment. The hind wheels were blocked. We gave a helping hand, and it took seven or eight others with the assistance of a team to pull it back to the road.

ONLY PUNCTURE OF THE TRIP.

Nearing Willoughby I got a puncture—the only one on the trip—by a sharp piece of iron. Neither of us had any serious machine trouble during the whole time. I would like to state here that we left Cleveland at 8 a. m. and reached Erie at 4 p. m. It was between these two cities that we found the worst roads. On our way to Erie we met two riders who told us that a bunch of Cleveland fellows had tried to get through to Buffalo on this same route and had to give it up.

The clerk at The Wayne hotel in Erie informed us that it had rained for 49 days, this having been the greatest rainfall in 40 years. He also said that automobiles had turned back from the Buffalo road to escape the mud. My puncture continued bothersome. The tire would get flat every 15 miles or so, and I had to keep pumping in order to reach Erie. On arriving there I went after the tire again, and located a double puncture. The iron had gone through both sides.

This day it did not rain, so we were able to get out of Erie at 10 a. m. The roads were very much cut up and rough, but we managed to reach Buffalo at about 4 p. m. where we stayed over night. The next morning we rode about the city, had dinner, and then started for Niagara Falls. It was on September 4 that we reached our final destination, running into the Falls over very bad roads at about 2 p. m. During the afternoon we made good use of our time in visiting the local sights. On the fifth we took in the Gorge Route in addition to a side trip on a boat to Toronto and return.

UP AGAINST CUSTOMS RULES.

There had been a desire on our part to route ourselves from Niagara Falls to Windsor and then cross over to Detroit and

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back to Findlay by way of Toledo. Later we learned that the American customs office grants certain courtesies to Canadian riders that they (Canadians) do not extend to American riders. On paying 5-cent tolls we rode our machines across the bridge to the Canadian side, where we ran up against a strict customs ruling—pay the duty or stay out. The regular duty is 35 per cent. of the article's value. This would have given our machines a duty claim of $75 each—a larger sum of money than either of us carried. We stayed out.

While we knew that the Canadian customs office would accept a bond permitting the passing of automobiles we did not know that no such provision prevailed regarding motorcycles. So we were thus barred out. I wish to say right here that this is a matter which should be looked into by the F. A. M. So long as no questions are asked Canadian riders coming into the States it should be made easier for those of us who want to cross over the line into Canada. Otherwise our experience should serve as a warning to those who are expecting to make this trip without a large wad of money. Had there even been some provision covering motorcycles similar to that applying to automobiles, it would not have cost us in excess of $2 or $3 each for the bonded security.

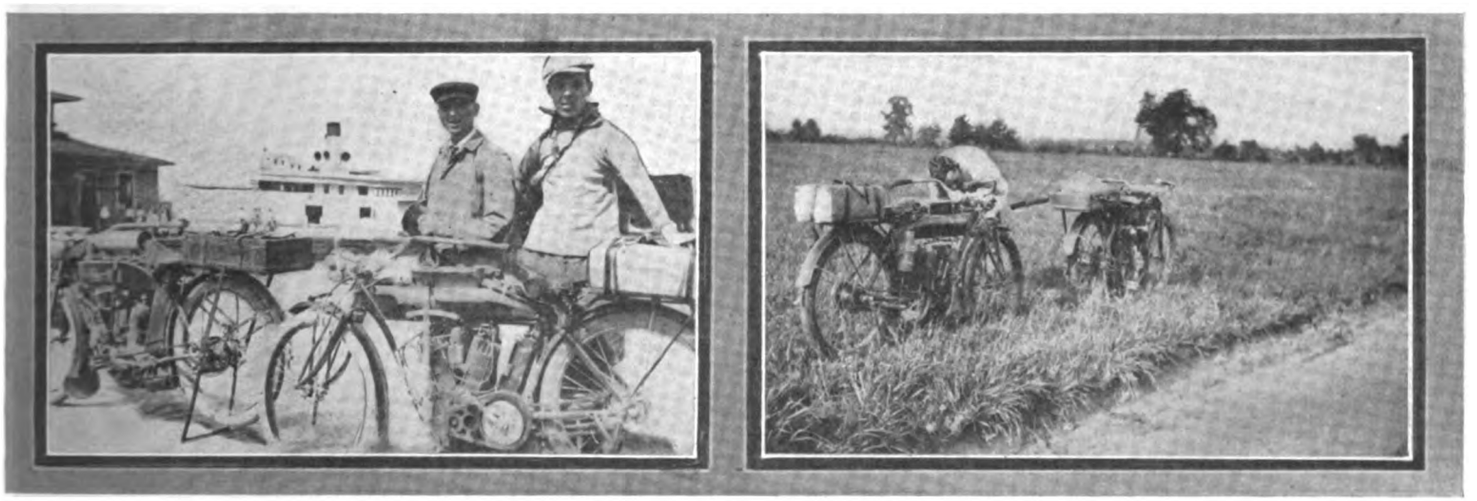
On our first lap for home between Niagara Falls and Buffalo I had the reservoir of my "curiosity" drawn upon again. You know I have previously mentioned that "seeing things" is my hobby. We were shunting along at about a 25-mile clip when I beheld something in the road that looked like real money. I stopped instanter—went back to the object, and to my joy and surprise found that my eyes had not played me another trick. I picked up—not a duplicate red brickbat—but two brand new one dollar bills.

Considering the bad roads we said, "never again!" We asked ourselves, "How might we avoid them?" The answer came loud and strong, "Take a boat." So turning our hearts and faces toward the setting sun we made the second lap for home by taking the 9 p. m. boat from Buffalo to Cleveland. In the meantime, however, we had tanked up (not ourselves, but our machines) with 23 cent gasoline, and it is probably not necessary for me to remark how hurt we were to have to pour it all out before they would allow us to go aboard the boat.

Like the proverbial cow's tail we were behind. It was late when we got to the dock and made inquiry about berths for the trip to Cleveland. We were politely informed that every berth had been engaged. And while we noticed that this situation elected us to the occupancy of a floor "berth," we came to the conclusion that we were playing in luck to have a chance to get on the boat at all. Once abroad we did not get lonely; we had plenty of company, for there were some 50 to 60 other passengers also without berths.

The last lap of our journey was from Cleveland to Findlay. After having been gone six days we found these roads better than when we started. On the home stretch we got anxious and became innoculated with a desire to "burn up the road." We struck a piece of sand-road which made my machine skid into a ditch, bending one pedal a trifle. As we entered Findlay Bill attempted to turn out for a team and his machine skidded in some dust, the pedal catching his foot and cutting a hole clear through his shoe into his foot and requiring the service of a doctor. These two so near home represent the total of our mishaps.

On the way we took a large number of pictures. And notwithstanding that the roads were so bad in places we had a mighty fine time. We not only hope to go again, but would advise all motorcyclists, if possible, to make the trip some time. You may grouch quite a little on the way if you strike bad weather, but, all in all, you'll be glad you went—just as we were.



Weir and Helms Ready to Leave Cleveland by Boat; a Stop for Wayside Repairs.

LONG ISLAND ROADS

Motorcycle Scout Finds Most of Them in Good Condition, Despite Rapid Changes in Weather of Late.

WITH a view of ascertaining the condition of the roads of Long Island so that the spring endurance runs of the various local clubs could be mapped out intelligently, a representative of all the clubs was recently sent over practically every main artery of travel between New York City and Patchogue.

After thoroughly canvassing the main highways the rider undertook the task of investigating the conditions of the less important crossroads, but due to the very poor condition of these roads no real effort was made to cover all of them. From New York City to Patchogue via the Queensboro Bridge, Hoffman Boulevard and the Merrick Road, good going is the rule. Through some of the smaller towns a short stretch of poor road may be met with. This, however, should not deter the average rider from undertaking the trip, as with a little care in navigating on the "soupy" spots the rider will be none the worse for his experience.

It is surprising how many riders fail to take advantage of the present good road conditions. If the motorcyclist is warmly clad many pleasant trips can be taken provided the best roads are picked out. On the north side of the island the Hempstead Turnpike is in fair condition. From New York City to Great Neck very good roads are met with. From Great Neck to Roslyn the turnpike is in poor shape at the present time, as the "dips," as the small valleys are called, are more or less muddy. On the grades of the hills, however, the roadbed is in excellent condition, as sand has been sprinkled over the road surface, making the roads ideal for riding.

From Roslyn to Oyster Bay and Huntington the roads are in very poor condition, and until the early spring travel over these roads will be anything but pleasant. Jericho Turnpike, the main artery of travel, is in excellent condition as far as Jericho. From Jericho, however, the roads are very muddy going to Oyster Bay, Woodbury and Hickville.

At the present time the best route for any rider who desires a trip entirely free from poor roads is over the Long Island Motor Parkway, which is in fine condition. During the three days in which the rider traveled over the Long Island roads not more than twenty fellow motorcyclists were met with. This is no doubt due to the erroneous impression that most riders have concerning the road conditions of Long Island.

SPECIAL care should be exercised to keep the inner tube dry in making repairs during winter road trips. Drying a tube properly by the roadside is a difficult operation, and should it be placed in the casing while wet the rider will be borrowing future trouble.

WHEN it becomes necessary to remove the tire for road repairs, wipe both casing and rim carefully, making the removal. Otherwise grit and mud may enter the cover and play havoc with the tube. Two or three minutes devoted to the cleaning operation will be well spent.

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AMONG THE CLUBS

ANNUAL INVINCIBLE RUN

AT the last meeting of the Competition Committee of the Invincible M. C., of Brooklyn, N. Y., it was decided to hold the annual spring run on Sunday, May 4, over the South Shore route to Southampton, L. I. The return trip will be over the North Shore route. There will be no check at Patchogue, the course being direct to Southampton and then back to East Quoque, thence east to Riverhead. In former years Southampton has been the dinner stop, but this year it will be Riverhead. After dinner the riders will continue to Port Jefferson, Smithtown, Jerico and along Jerico Turnpike to Hillside avenue.

Matters will be so arranged that no rider will be allowed to use the Motor Parkway on the return trip as a short cut. Unlike other years there will be no 100-mile division, it being the belief of the committee that any rider who can not make the 200-miles should hold off for some other event. Anyone arrested for speeding will be disqualified. Certain details of the run have not yet been decided upon, such as the selection of souvenirs, the starting and finishing point, etc. Stress is laid upon the fact that this is a pleasure run and not a competitive event. Special provision will be made for New York and Jersey riders.

NEWARK CLUBS TO UNITE

IF present plans do not miscarry the New Jersey Motorcycle Club and the Newark Motorcycle Club, both of Newark, N. J., will unite. Steps toward the amalgamation were taken by the New Jersey club when a committee, composed of President Roy Pascall and J. H. Gunn, was named to wait upon Newark club and extend it a formal invitation to join the New Jersey M. C.

Elmer Crosbie, E. A. Allen, P. E. Stevens, Holmes Wright, Edward Wright and George Post were appointed by President Pascall as a committee to arrange for the Memorial Day endurance run of the club, which, as usual, is expected to be a two-day affair.

ANNIVERSARY AND ELECTION

INCIDENTAL to the celebration of the first anniversary of the Chesapeake Motorcycle Club, of Baltimore, Md., officers were elected. H. F. Vetter is the new president; A. W. Rupp, vice-president; George W. Coggins, secretary-treasurer; John L. Stube, captain; William L. Albers, first lieutenant; S. C. Brown, second lieutenant, and C. Sherman, third lieutenant.

Reno, Nev., contemplates the purchase of motorcycles for use in its police department.

HAVERHILL M. C. STAFF

SPLENDID progress is being made by the newly organized Haverhill (Mass.) Motorcycle Club. At a recent meeting officers were chosen as follows: Harry M. Fernald, president; Edwin Tappan, vice-president; H. W. Urquhart, treasurer; Hiram P. Ayer, secretary; Ellsworth Wilkie, captain; Joseph Bray, first lieutenant; George A. Baker, second lieutenant; Frank Brodie, bugler, and H. R. Sawyer and George Seavey, directors.

CLUB INCORPORATES

A CERTIFICATE of incorporation has been filed by the recently formed Indian Motorcycle Club, of New Brunswick, N. J. The trustees named are: George B. Rule, E. J. Miller, F. M. Thickstun, T. Y. Sutphin, W. F. Gulick, L. A. Voorhees, Herman Goetz, Oscar B. Martin, and George L. Burton.

MAY ABANDON RACE PLANS

ALTHOUGH a final decision has not been made by the Savannah Automobile Club with reference to the offer made by the Savannah M. C., to run a series of motorcycle races in connection with the annual automobile events, it has been unofficially announced that the offer will not be taken up.

Members of the Maryland M. C., of Baltimore, Caught in Repose After Their Recent Annual Banquet.

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CHICAGO M. C. PLANS TO REBUILD AT ONCE

Handsome Clubhouse of the Chicago M. C. Before the Fire.

CHICAGO, Ill.—That there is the proper spirit behind all the operations of the Chicago Motorcycle Club is evident from the enthusiasm with which the members of the organization have entered upon plans for reconstructing the section of its handsome clubhouse that was destroyed by fire on February 11. The loss was fully covered by insurance and no time was lost in taking steps to bring about an adjustment.

The fire, which proved to be one of the most stubborn the city has had to fight in its residence district in years, wiped out several large apartment buildings adjoining the Chicago club's headquarters and left 400 families homeless. A change in the direction of the wind, a fire wall and the desperate efforts of the firemen combined to save the clubhouse from complete destruction. The principal damage to the club's home was done by water and falling walls. Practically everything in the building was ruined by water, including the handsome mission furniture, two pianos, a player attachment and pool and billiard tables. The dance hall was destroyed.

Immediately upon the discovery of the fire the club steward telephoned President R. T. Purdy, of the club, and he in turn telephoned to all the club members who could be reached by wire. In a few minutes the Midway resembled a motordrome. Riders headed for the clubhouse at top speed and from all directions, and traffic limits were smashed to smithereens. The members saved some of the club records and nearly all of the machines stored in the club garage, but they were soon driven from the building. Fred Huyck, Jack Purdy, Robert Hill, Jay Starr and Dick Purdy were among the first to arrive and undertake the salvage work. An hour or two after the start of the fire nearly all the club members were on the scene, and President Purdy called an impromptu meeting at a nearby hall, where plans were taken up for obtaining temporary quarters pending the reconstruction of the damaged clubhouse.

A THREE-DAY Franco-British convention will be held in London in September. Such matters as hotel accommodations, comcunication, customs, improvements and the organization of international touring will be discussed.

ALTHOUGH Los Angeles is known as one of the best policed cities in the United States, Sheriff Hammel plans to organize an interurban police force consisting of about 125 men, each to be equipped with a motorcycle.

PRESIDENT PATTERSON has appointed P. N. Bushnell, of 316 South Lincoln street, Aberdeen, State Commissioner of the F. A. M. for South Dakota.

Scene in Rear of Clubhouse After Adjoining Buildings Had Been Destroyed.

MINNEAPOLIS SHOW

MINNEAPOLIS, Minn.—Despite the fact that there were only two exhibitors of motorcycles at the annual motor show in this city the single-trackers created an excellent impression and business is reported to have been entirely satisfactory.

The motorcycle exhibitors were the John F. Wingate Co., of Minneapolis, which displayed Minneapolis motorcycles and commercial vans, and Guy W. Webb, of the Arcade Cycle Exchange, who offered an attractive exhibit of Harley-Davidson machines. The Wingate Company featured two Minneapolis forecar delivery vans, one finished in white and the other in dark blue. The white outfit was sold during the show to the Kimball-Storer Co., printers and stationers of Minneapolis. Another exhibit of special interest at the Wingate stand was a 10 h. Minneapolis twin with two-speed.

At the Harley-Davidson stand Mr. Webb was assisted by E. J. Megow, of St. Paul, who looks after Harley-Davidson interests in that city; Burt Mahowald, of Mankato; Rodney Gates, H. A. Whitney, E. W. Wood, I. S. Embrietson, of Minneapolis, and P. B. Marshall, of Marshall, Minn., were also in attendance to assist in welcoming visitors to the Harley-Davidson booth.

Mr. Webb exhibited two of the famous "5-35's" one chain drive, the other belt drive; one 8 h. twin, and a cutaway model of another twin 8 h., showing its complete makeup, i. e., the valve action, various reinforcements, etc. He also had a board containing a complete set of drop forgings as used in the manufacture of the Harley-Davidson motorcycle

ARTIST'S MACHINE STOLEN

A 1911 5 h. Indian belonging to Arthur Merrick, 32 Union Square, New York City, was stolen from Foley's Garage on Jerome avenue recently. The thief broke in through the rear window and made his getaway on Merrick's motorcycle. The motor number is 20C087. A reward of $25 will be paid for its recovery.

GIRL RIDER ON TIME

ONE of the orders booked by Otto Oberwegner at the Chicago show was for a Pope 5 to be delivered to Miss Adele Schaerfer, of East St. Louis, Ill. Miss Schaerfer is a member of the East St. Louis M. C., and although only sixteen years old she has been riding a motorcycle for the last year.

COLUMBUS, Ohio.—The P. I. Haynes Company, of Columbus, Ohio, local distributor for the Harley-Davidson, will move on or before March 1 to a new location near the corner of Chestnut and High streets.

MRS. ARABELL WADE, a woman motorcyclist of Cardiff, Wales, and a writer for English motorcycle trade papers, is the guest of George Post, of Newark, N. J., former president of the New Jersey M. C.

L. W. LUDER and Scott Campbell, of Caro, Mich., expect to make a three weeks' motorcycle tour of the East in June. They plan to visit New York, Boston, Portland, Washington, D. C., Philadelphia and Baltimore.

WORTMAN & KING, proprietors of a large department store, are said to be first in Portland, Ore., to adopt the motorcycle for delivery purposes.

A SIMPLE method of preventing the hardening of spare tubes is to place them in hot water once every six weeks. This is said by riders who have tried it to keep the rubber in excellent condition.

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BUSY SAVANNAH MEETING

ONE of the busiest meetings ever held by the Savannah Motorcycle Club took place February 11. At this meeting twenty-eight new members were added to the list. The dues of the club were raised from $3 to $9 a year and the club became 100 per cent. F. A. M. The age limit of the club was reduced from 18 to 16 and this will add materially to the membership, it is believed, as there are many very young riders in Savannah.

A committee composed of J. S. Cafiero, J. Waters, G. R. Coes and O. A. Meyer were appointed to arrange for Mr. Sauer's visit. President Williams announced the following committees who will serve the club for the following year: Finance—J. F. Entleman, G. M. Baker and G. R. Coes. Membership—J. D. Ivey, George Potter and W. S. Mell. Competition and Tour—G. R. Rossignol, Jr., J. A. Waters and George Balmer. Entertainment—J. L. Hartzel, H. A. Rushing and J. W. Gregorie. Legislative—G. C. Waters, C. E. Harrington, Jr., and W. C. Carraway.

MOTORCYCLISTS of Knoxville, Tenn., recently met in the Central Y. M. C. A. building and formed the Knoxville Motorcycle Club. Officers were elected at the first meeting and are reported as follows: President, R. T. Freels; vice-president, C. V. Hackney; secretary, James A. Trent; treasurer, Stanley Tinsley; press and publicity agent, Roy Sexton. C. A. Burnett was named road captain, with Ernest Dew, lieutenant.

A MOTORCYCLE PLAY

A MOTORCYCLE play, written, staged and produced by motorcycle riders, will be put on by the Manhattan (Kan.) M. C. Claude Stone, Merle Ebelblute, and K. W. Hougham are to be the joint authors, and Professor Kammeyer, of the Manhattan Agricultural College, will give the play its final touches.

CONCOURSE M. C. STAFF

AT a meeting of the Concourse M. C., of New York City, 1913 officers were elected as follows: President, William McClelland; vice-president, T. A. Turner; corresponding secretary, Clinton L. Frobisher, and road captain, Russell E. Polhemus.

BRADFORD OFFICERS

A SPECIAL meeting of the Bradford (Pa.) M. C. was recently held for the purpose of electing officers for the new season. William Demler is the new president; Edward L. Fish, vice-president; George J. Kelly, secretary and treasurer; Walter J. Fuermann, captain, and Emil Graff, lieutenant. The treasurer's report showed the club to be in an excellent condition.

AT a recent meeting of the Cleveland M. C. a committee was appointed to obtain a hall for the lecture to be given April 19 to Cleveland motorcyclists by Director J. Leo Sauer, of the F. A. M.

The La Verne M. C., of Lordsburg, Cal., is a new club on the F. A. M. list.

HUDSON COUNTY RACER.

ERNEST HELLER, a member of the Arrow Motorcycle Club, of Jersey City, N. J., and one of the fastest speedsters of Hudson county, will figure prominently in local speed events in the spring. At a recent meeting members of the Arrow Club appointed a committee to arrange for a series of weekly runs.

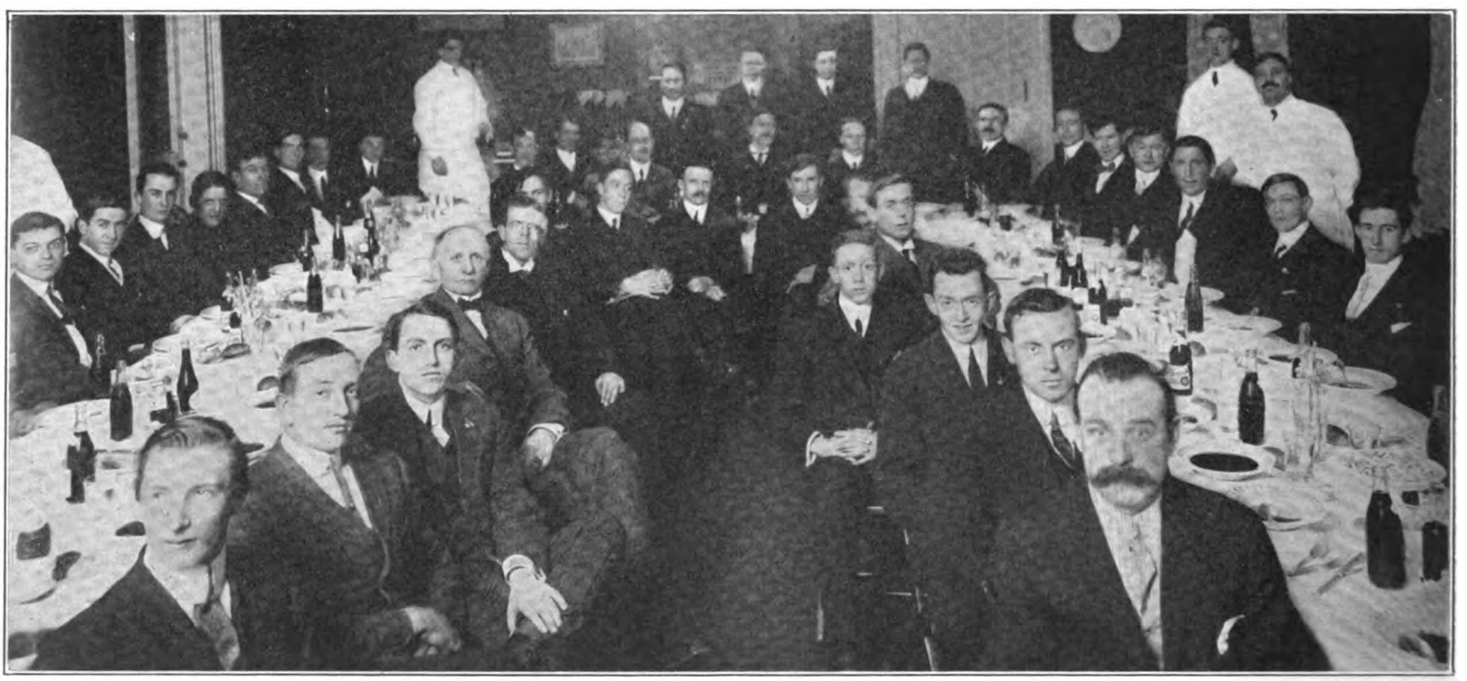
CINCINNATI CLUB ELECTS

AT the annual election of the Indian Motorcycle Club of Cincinnati, Ohio, the following officers were chosen: President, W. E. Horn; first vice-president, M. D. Green; second vice-president, W. Krebs; Henry Wydner, captain; Joe Uhl, secretary; James Mahoney, assistant secretary, and Henry Allioner, treasurer. After the business was over the members present were served with a light luncheon.

MEMBERS of the newly organized District of Columbia Motor Club, of Washington, D. C., recently participated in the nrst club run. The course was over the new Washington and Baltimore boulevard.

AMONG the new motorcycle clubs recently organized are the New Britain (Conn.) M. C., the Lyons (Kan.) M. C., the Bellevue (Ohio) M. C. and the Brainerd (Minn.) M. C.

A. A. Allen, Livermore Falls, is a local appointee of the Maine State Commissioner.



PROVIDENCE BANQUET

NO less than fifty members of the Providence Motorcycle Club were present at the seventh annual stag banquet held recently. It goes without saying that the affair was a success. It was after five o'clock when President E. L. Buffington gave the order to the road officers that all was in readiness for the run, and orders were given to see that all lights were lighted, to open the cut-outs, blow the horns and to keep to the right. The members were then placed in their seats at the tables and a picture of the club was taken.

For the next hour the members devoted themselves to securing a good supply of fuel for the run of the evening, President Buffington being the toastmaster. After the dinner was served the toastmaster introduced Secretary G. B. Gibson.

Dr. Gibson spoke of the work and the recent growth of the F. A. M., and told what the federation was doing about touring maps for the use of the members. He also spoke about the cards that the members carried and called attention to the fact that the twenty thousandth has been issued and that Treasurer B. A. Swenson of the Providence organization was the possessor of No. 97.

Those present were: G. B. Gibson, E. L. Buffington, J. G. Edwards, B. A. Swenson, Charles S. Coulters, W. C. O'Brien, E. G. Luther, Charles W. Rayhill, G. W. Lane, Harry H. Little, Felix Beauvais, Herman Benson, F. G. Dowding, S. Litterio, C. A. Anderson, A. B. Carlson, C. E. Hadfield, G. W. Hayden, J. Crovin, A. Hurle, M. Ross, C. Buffington, G. W. Suft, A. V. Howe, John Kay, F. Bayshaw, W. C. Keene, C. A. Bowen, A. E. Manchester, O. A. Anderson, J. C. Loftus, D. F. Adams, G. L. Koerner, R. E. Hornby, E. E. Smith, E. A. Lutz, J. Parent, H. G. Roscow, G. P. Williams, H. L. Thomas, C. Latterio and O. Klindt.

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IN THE BERKSHIRES

(*Continued from page* 31.)

of Philadelphia, only that this vicinity was settled by the Shakers instead of the Quakers. Then we simply retraced the route to Brainard, Nassau, Schodack Center and Albany.

A quick trip of this kind only allows one to sniff the ozone and glance at a few of the scenes which the Berkshires offer; but in this busy age such brief outings are not to be despised. Sometimes they are only the respite which an overworked business man is allowed, and they are certainly better than nothing at all. Even when one makes the journey over these mountains for some special business reason, he is apt to lose sight of his mission for the time being in the enjoyment of the trip he is making.

HILLS GIVE NO TROUBLE.

It is scarcely possible to believe when traveling through an unsettled section like some parts of this district that the State of Massachusetts is more thickly populated than Italy or Germany; but, of course, the average is made up in the great cities on the eastern seaboard. Pittsfield is the "hub" of all motorcycle routes in western Massachusetts, and thanks largely to its summer vacation, is becoming quite a modern city.

One who has not known the Berkshires by motorcycling in and among them may think they are too hilly for safe touring. On the other hand, the very unevenness of their topography enhances the pleasure of a trip.

The main roads through the western part of Massachusetts do not have the steep grades that many imagine. Most of them follow the valleys and watercourses and, like these, go around the hills rather than over them. The newest roads are generally a part of the splendid modern system which the Bay State Commonwealth is constructing as an example to the country at large. The traveler will also notice the numerous clear, cold springs and drinking cups close to the roadside throughout much of this entire section. He will be pleasantly surprised at the number of hotels, even in out-of-the-way villages, supported more by the tourist travel—of which he is conscious of being a part—than by the more mixed travel so much more in evidence over in the adjacent portions of New York State.

SHORTER THAN RAIL ROUTE.

One interesting thing about the Pittsfield-Albany run is the fact that the road distance is several miles shorter than the Boston and Albany railroad mileage between the two points. The road takes a nearly straight natural route over the mountains, and as far as distance is concerned, the highway has the better of it by at least 12 miles.

Motorcyclists who have never made any of these trips may be unduly exercised about going over the mountain roads. As a matter of fact, the Berkshires are principally large, rounded hills, with seldom a grade steeper than 10 or 12 per cent.; and they are not nearly so hard to negotiate as some through the Hudson river highlands, within fifty miles of New York. Gradually, too, modern State roads are covering all this territory, the old Commonwealth finding it well worth while to encourage summer visitors who prefer to come by the highway. Taken as a whole the roads are in better shape for motorcycling than the average in New York State.

How Santa Claus Rigged Up His 1912 Xmas Outfit at Fred J. Barr's Flying Merkel Agency in Davenport, Iowa. The idea proved a great publicity winner.

HUMISTON'S STANDING O. K.

AN announcement from the office of National Secretary Gibson to the effect that Lee Humiston's membership in the F. A. M. had expired on January 2, 1912, occasioned a report that his recent records could not be accepted after all, but it has been discovered that the speedster's membership really expired on January 2, 1913, instead of 1912. As renewal of membership in the Federation within three months of the expiration of the old card restores a rider to uninterrupted membership, and in view of the fact that Humiston renewed his membership and paid over his fee before undertaking his record-breaking trials, there appears to be no question as to his good standing in the organization. It is stated that a special affidavit is now on the way from the coast to the effect that Referee W. H. Powers received Humiston's renewal fee prior to the trials.

Chairman Thornley, of the F. A. M. Competition Committee, has received the affidavit of Referee Powers to the effect that Humiston's trials were conducted in keeping with all the Federation competition requirements, and the chairman announces that the records have been formally accepted.

SOME TORONTO FIGURES

DURING the two years that the Toronto police have had six Triumph motorcycles in operation 53,250 miles have been covered in aggregate. The gasoline consumption amounted to 701 gallons and 14 gallons of lubricating oil were consumed. The total cost of running, including tires, belts and repairs is figured at one and one-eighth cents per mile.

MAY FORM RACING LEAGUE

A NUMBER of Cleveland promoters are behind a movement for the formation of a national motorcycle racing league, which they purpose launching in the spring. The following are reported as being interested in the movement: M. F. Bramley, James F. Kelley, Jacob Mintz, W. S. Lougee, Charles P. Salen, J. H. Smith, J. J. Mueller, and Maurice Maschke. It is planned to form teams in each city where those interested in the league operate tracks. Five riders will go to other cities to compete and five will stay at home.

PLEA FOR SMALLER TAGS

A BILL is being introduced into the Nebraska State legislature providing for smaller license tags to be carried on motorcycles. At the present time a tag must be not less than four inches in height, and each stroke of a figure not less than one half inch in width.

EXPERIENCED riders whose machines have forks with exposed springs make a point of having a harness-maker fit a neat leather cover over the springing agent. When the springs are covered with grease and the leather shields sewed on firmly, these parts should give no trouble in the hardest service and under any weather conditions.

THOSE fastidious motorcyclists who use glass windshields—and there are some—will be interested in knowing that glycerine and kerosene mixed in equal quantities is handy for preventing rain from accumulating on the glass. A little of this mixture will cause the rain to run off.

FROM Milan came the statement recently that plans had been practically completed for an Italian national motorcycle event, along the lines of the English T. T., but it is now explained that the race has not been sanctioned by the Italian Union and there is trouble in the air.

ACCORDING to the latest plans of the Short Grass Motorcycle Club Yellowstone Park will be the goal for its annual run this summer.

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ECLIPSE

The Clutch of a Thousand Speeds

"—AND THE ECLIPSE FREE ENGINE CLUTCH"

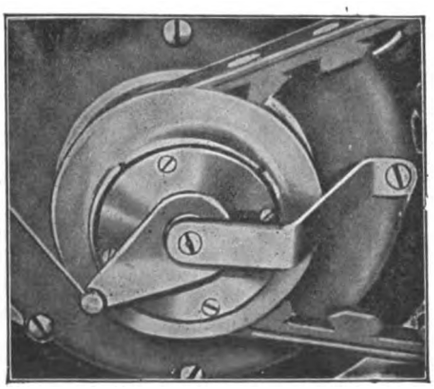
On how many 1913 specifications have you seen these words prominently displayed?

The year 1913 will be a "large" year for motorcycles. Just as popular as was the "bike" five or six years ago, will the motorcycle become in 1913.

And why? Mainly because the ECLIPSE FREE ENGINE PULLEY AND MULTIPLE DISC CLUTCH has eliminated from the motorcycle that one last objectionable feature—uncertainty of control. With the ECLIPSE, the rider can get automobile service from his motorcycle. He can stop while the motor is still running. He can start without violent pedalling for half a block, or running alongside. He can, by the aid of the ECLIPSE, "make" hills absolutely impossible without it. He can glide through the worst roads, shifting sand, treacherous mud, deep snow—easily and surely. In traffic riding, its many discs insure the right speed at the right time. The rider can slow down to a walk and then quickly dart into an opening. THE ECLIPSE BELONGS ON YOUR MOTORCYCLE.

If it isn't—why not?

ECLIPSE MACHINE COMPANY



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CIRCULATION THIS ISSUE MORE THAN 14,000 COPIES.

IMPORTANT.

OWING to its large circulation, it requires two full days of 24 hours each, after the last form has closed, to print, bind and mail a full edition of MOTORCYCLE ILLUSTRATED. In view also of the fact that this publication is read in more than 2,400 different cities, towns and villages in the United States, its wide distribution demands that each issue be placed in the mails not later than noon every other Thursday, the date of publication. In order to make the mails at this time, forms must close not later than 6 p. m. Tuesday, and advertising copy cannot, therefore, be handled if received later than Tuesday morning.

RECEIPT OF TEXT MATTER.

This applies also to text matter. Photographs should reach us not later than Monday morning preceding each date of issue. They will be given better attention, however, if reaching us the Saturday preceding.

CORRESPONDENCE.

MOTORCYCLE ILLUSTRATED requires correspondence and subscription agents in many towns where the paper is not already so represented; we pay a liberal commission to subscription agents, and the best space rates for quality, text-matter, drawings and photographs.

PHOTOGRAPHS.

Drawings, photographs and manuscript not suitable for publication will be returned if sufficient stamps are enclosed for the purpose. In every case, photographs should be plainly marked, so that they may be properly identified.

SIDECAR NUMBER

FOR the motorcyclist who finds that a companion is essential to his complete satisfaction on the road—and we believe this applies to seven out of ten riders—there is a treat coming in our next number, that of March 6. Mark the date.

This number will sing the siren song of the sidecar in all its fascinating and instructive variations—through at least twenty pages of text and pictures—**and if, by any chance, you are one of those solitary roadsters who derive no joy from companionship, we warn you not to read it. If you do, you will probably break up the resolutions of a lifetime and find a touring partner.**

Incidental to the sidecar matter there will be tandem features, an intimate story of the construction of a full-fledged American cyclecar—and the regular newsy departments that you have come to expect. Keep a keen eye open for this number. It's on its way.

EDITORIAL VIEWPOINTS

ONE of the most encouraging indications of the present winter season is the persistent and lively interest in motorcycle touring. Never in the past have so many riders kept their mounts in service throughout the period of ice and slushy roads, and there has been an unprecedented demand for maps and route information.

It is also noteworthy that scores of applications for touring data to be utilized during the coming summer have already been filed with the F. A. M. Touring Bureau, all of which goes to prove that there is no longer a period of winter laxity in the motorcycle field, and that touring developments of the coming summer are likely to be little short of amazing.

INFORMAL discussions have their value, but when it comes to making a decision, the level-headed gentlemen who compose the Motorcycle Manufacturers' Association will vote to continue the New York Show provided, of course, that arrangements can be made to stage the motorcycle end of it under more favorable conditions than heretofore. The manufacturers of motorcycles transacted more business with dealers at the New York Show than they did in Chicago, while the makers of accessories did much better, as a rule, in the Western metropolis. There were still numerous agencies to be assigned at the time the New York Show opened, but few remained to be closed up in Chicago. On the other hand, there is no question whatever that the manufacturers of motorcycle accessories are able to work to better advantage in a separate motorcycle show, where a dealer can, in a few days' time, and in one place, arrange for the purchase of his complete stock for the season.

To sum up, while the running of two shows—automobile and motorcycle—in separate buildings, compels the manufacturers of both motor and motorcycle accessories to have two exhibits, or be unrepresented in one place, the New York arrangement, with the manufacturers of motorcycle accessories widely distributed in two buildings, has been anything but satisfactory. There doesn't seem to be any reason why, even in connection with the automobile show, the exhibits of the motorcycle accessory manufacturers cannot all be placed in close proximity to the machine exhibits, thus duplicating, in a combined auto-motorcycle show, all the desirable features of Chicago's separate show, and at the same time giving the manufacturers of motorcycles an opportunity to interest at least a small proportion of the thousands who annually visit the big show in the national metropolis. No trouble should be had in working out the details of a plan of this character.

IT is at this season—when the New York and Chicago shows have been written glowingly into the history of the trade and all the new models have been introduced to an expectant public with fitting eclat—that the oft-repeated admonition "talk motorcycles" achieves greatest pertinence. Now, if ever, the dealer and his friends and their friends should be abroad in the fertile field of public interest, scattering seeds of enthusiasm and practical information, in order that the first balmy days of the riding season may meet expectations by producing a bumper crop of sales. There is not a moment to be lost. Here we are at the twentieth day of February; another month and the reaping should be in full swing.

In no other industry is there such an imperative demand for early activity on the part of dealers. Perhaps the closest approach to such a requirement is in the automobile field, but here the agents who fail to make the most of their January, February and March opportunities, and who deluge the manufacturers with late orders, have scores of factories to draw upon. As long as enthusiasts come forward with coin of the realm there will be motor cars to buy. On the other hand, the output of motorcycles is dependent upon a comparatively small number of factories, and the possibility of reaching the production limit while agents are still pleading for deliveries on late orders is ever present. Such conditions existed last summer, and despite the broad-gauge policy on which all motorcycle manufacturers are basing their 1913 operations, we may find the trade facing just such a healthy but unsatisfying overflow of business before we are through the 1913 season.

It devolves upon dealers to do their part toward avoiding a motorcycle shortage at the height of the riding term by placing their orders early, and thus providing the manufacturers with a working basis for their output calculations. A late rush of applications for machines imposes an unjust strain upon the maker, and often results in keen disappointment for the agent and the prospective rider when they are obliged to wait for tardy deliveries. It is obvious that no dealer can foresee the extent of the business he will be called upon to handle within the next four months, but by keeping in close touch with every prospect and canvassing his district systematically he should arrive at an estimate of great value to himself and to his manufacturer. The policy of ordering twenty-five or fifty machines on a more or less speculative basis and then bombarding the factory for heavy additional shipments at the eleventh hour should have no place in the operations of the 1913 motorcycle dealer. This is an attitude that has to be lived down by nearly every industry in any way dependent upon the seasons, and the motorcycle trade fortunately has developed beyond the need of it.

Aside from manufacturing, the early sales idea has many angles that should impress the thoughtful dealer. For example, interest in the motorcycle and its passenger and commercial adjuncts is now at top pitch as a result of the shows and the extensive publicity campaigns that have been waged for some time past by manufacturers, and any prospect worthy of the name is in a receptive mood for first-hand information and demonstrations. With the arrival of the early summer season he may be attracted toward other recreation fields and the task of the motorcycle salesman will be complicated. The ability to guarantee delivery upon a specified date is always an aid to salesmaking, and the agent who settles down to booking orders now is in a position to take advantage of this fact. Later he may not be so fortunate. There are a dozen other arguments equally practical and all pointing to the necessity for action—now. If there is a prospect at large in your district, look him up today. Don't put off the visit until tomorrow. Empires have crumbled in a night.

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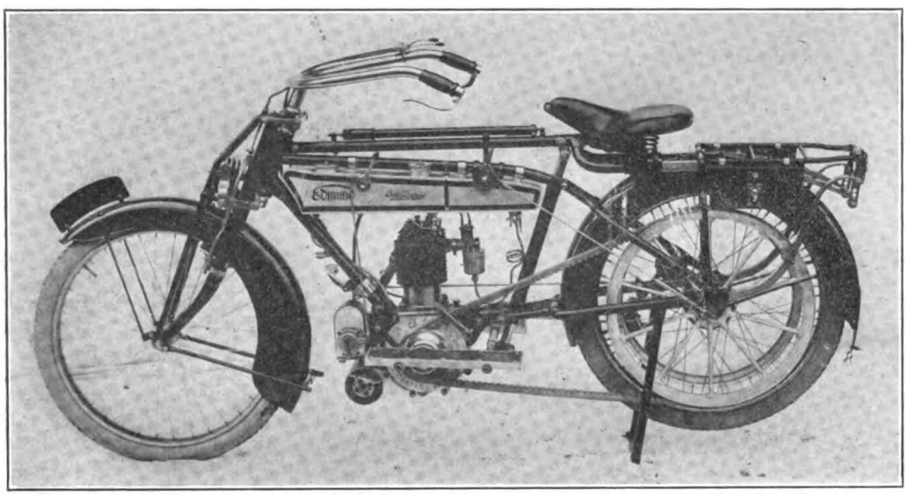
ENGLISH NOTES by "BRITISHER"

An Improved Type of English Spring-Frame Motorcycle; Interesting Details of the 1913 Rover; the Wall Parcelcar That is Winning Favor with British Merchants; a View of the New Clyno, with Detachable Wheel.

THE photo of an Edmund machine, reproduced below, shows how one of our English designers grapples with the springing problem. It is clear that the top tube, saddle and carrier are all completely insulated on the long double laminated springs mounted astern of the machine. The saddle post slides up and down in the frame tube, which is greased, providing a bearing which prevents any lateral sway; its lower extremities form the rear mounting of the hinged footplates, so that the rider's person is sprung at all points of contact with the machine. Spring frames are not widely demanded in Great Britain, owing to the excellence of our roads, but the Edmund is among the best. Its weight is its chief drawback, for the special construction scales a good 10 lbs. The springs are adjustable to suit the rider's weight, as the holes in the plate at the tail of the carrier show.



The English Edmund, Showing Ingenious Spring Frame Construction.

OVERBOARD WITH CONVENTION.

AFTER a long period of stagnant convention, our makers are showing a praiseworthy tendency to launch out in new directions, for the warm welcome accorded to such freak designs as the Scott and Douglas machines and the A. B. C. engine, indicates that the buying public is less hidebound than we used to fancy. I have just been privileged to inspect the first sample of a novel design which probably illustrates the top spot of forward tendency over here. The engine has been designed to order for one of our leading firms, who are preparing to scrap their old pattern in its favor.

The power plant is made in unit form, and its basis is a one piece crankcase, with a long coverplate on the lefthand face. The crankcase is extended rearwards in the form of a shell casing, which accommodates a three-speed sliding gearbox, capable of rotation within the shell to maintain chain adjustment; the lock of the adjustment is external, and simple to operate. The engine drives the primary shaft of the gearbox by means of a fully encased "silent" chain; the coverplate of the crankcase forms the back half of the chaincase, and a second plate is superadded.

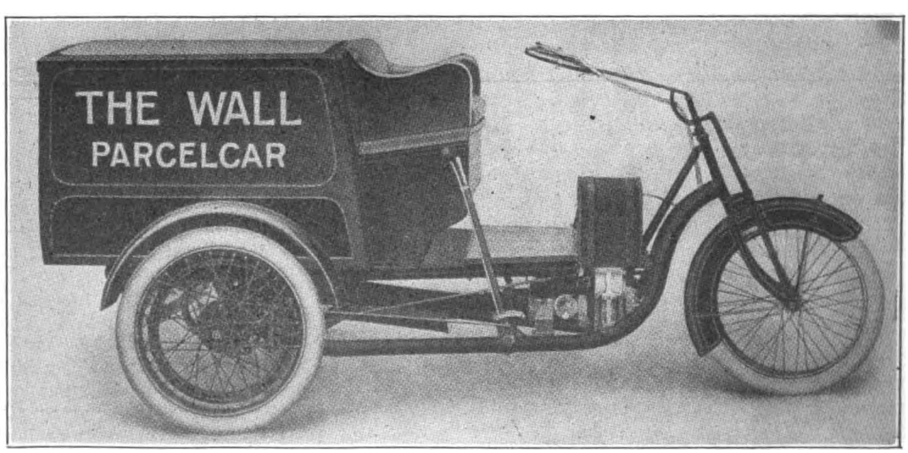
The whole exterior of the aluminum casting is rotund, smooth, oilproof, and free from trademarks. Not a single spot of oil emerges at any point of the base casting; indeed the makers showed me a flawed casting, and spirting a drop of oil on the blowhole with the engine running I saw the oil sucked in —not inhaled. The explanation of this weird phenomenon is that the basechamber is fitted with a vacuum valve, and forced feed oiling from a sump. This method permits the designer to retain the V type of twin cylinder engine, and yet to insure absolutely even lubrication of both cylinders. The engine is made in 500cc. and 750cc. sizes, the same crankchamber serving for both types. The dimensions are 60 x 88mm., and 73 x 88mm., respectively. The final drive to the back wheel may be either chain or belt, at the maker's option; probably the belt will be fitted for solo work, and the chain for sidecars. This design embraces three points of most interest to our public at the present moment, viz.: 1. A durable engine (obtained by perfect oiling of all bearings under pressure); 2, An absolutely oilproof and easily cleaned base chamber; 3, An absolutely weatherproof transmission, incorporating a countershaft three speed gear.

THE L. M. CYCLECAR.

THE L. M. Cyclecar is a good representative of the all-weather patterns, which eschew the belt drive. It has a V aircooled engine of 8 h. p., and its transmission consists of two chains with a central twospeed gearbox, and differential rear axle. It weighs 560 lbs. ready for the road, and costs $580. It can climb a 25 per cent. grade, with two persons up, touch 45 m. p. h. on the flat, and cover 45 miles on a gallon of gasoline. The springing consists of quarter elliptics astern, and two pairs of vertical coil springs in front. The steering is of the geared rod type, and when the engine is tuned up perfectly, the driver can start it up without leaving his seat, by digging with his right foot on the starting handle, which is mounted amidships.

THE IMPROVED ROVER.

I ENCLOSE a cut of the new 3½ h. Rover motorcycle. As the outline shows, the machine is distinctly reminiscent of its dis-



A British Commercial Outfit That Is Growing in Popularity Among Merchants.

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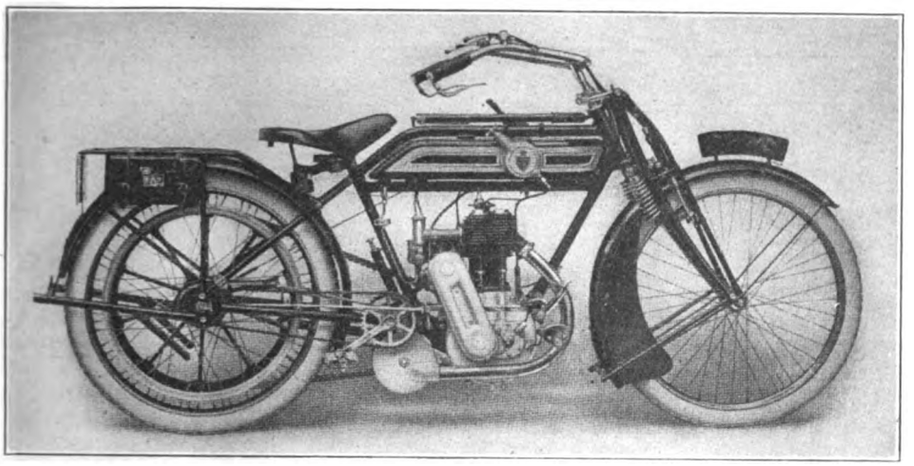


1913 *Rover Model; Note Circular Oil Tank Set Into Fuel Reservoir.*

tinguished predecessor, and its success is due rather to the intensely conscientious methods by which it is manufactured, than to any novelty of design. However, a few minor details attract attention. The magneto is carried in the best location—high up abaft the cylinder, where it is cozily placed for tuning the contacts, and well away from water and mud. The spring fork is superior to most competitors, and the saddle position is as low as is consistent with large tanks.

The oil tank consists of a separate cylinder, pressed laterally through an orifice left for the purpose in the gasoline tank. This is an expensive type to manufacture, and personally I could never see that it showed any real advantage over a first-class two compartment tank of ordinary type, except that it locates the oil pump at a more handy spot. Behind the saddle pillar tube may be seen the hand oil gun, used for lubricating the threespeed hub and bearings generally; it drops into a splitsided tubular carrier, and never shakes out. The muffler is an expansion box, from which a final outlet emerges on the lefthand side of the machine; it is the quietest on the road, though its size is by no means obtrusive.

Note the mudguarding, provision of stands to both wheels, and pannier toolbags, secured by vibration proof bent clips and D nuts; these bags are as tight after 10,000 miles without attention, as they were when they left the factory. The operating lever of the threespeed hub can be seen on the top tube, and the clutch and brake pedals are conveniently located on special spindles just above the front footrests. The gear ratios are variable by adjusting the engine pulley; they range between the series 4, 7, 9 and 6½, 9, 13, at the rider's pleasure. The engine develops 8 b. h. p. on a dynamometer test.

OFFICIAL MUFFLER TRIALS.

THE Auto-Cycle Union has now carried out its track test of the twenty mufflers submitted for competition. The test has so far only extended as far as impressions by ear, and tests against the clock on Brooklands track, comparing the open exhaust speeds of two Rudge machines with the same machines racing on the competing mufflers. All the mufflers entered fulfilled the standard of silence imposed by the judges, who had expressed that standard in the form of a huge experimental muffler. The entrants drove their machines over a lap with the silencers fitted, it being to their interest to coax as much pace out of the muffler as possible; then an expert retained by the officials tried to beat the entrant's time using the naked exhaust. The results of these time trials proved nothing, as they failed to eliminate personal factors.

In 14 cases the machine was a little slower with the muffler fitted, the difference seldom exceeding a mile per hour, though the Sharpe muffler robbed the machine of ten miles an hour. One Rudge touched the same speed with and without a muffler. Five machines were faster muffled than unmuffled, viz., the Rover (1.31 m. p. h.), two Rudges (3.80 and 2.66 m. p. h. faster), the Macbeth (.50 faster), and the Chase (2.13 m. p. h. faster). The general deduction is that these trials were worthless. The laboratory tests must be trusted to provide any valuable results. They will include the registration of the actual noise made at a high rate of revolutions, and recorded by a special electrical instrument designed for the purpose by Col. Holden; together with dynamometer tests for maximum h. p. with and without mufflers, designed to indicate any back pressure created by the competing fitments.

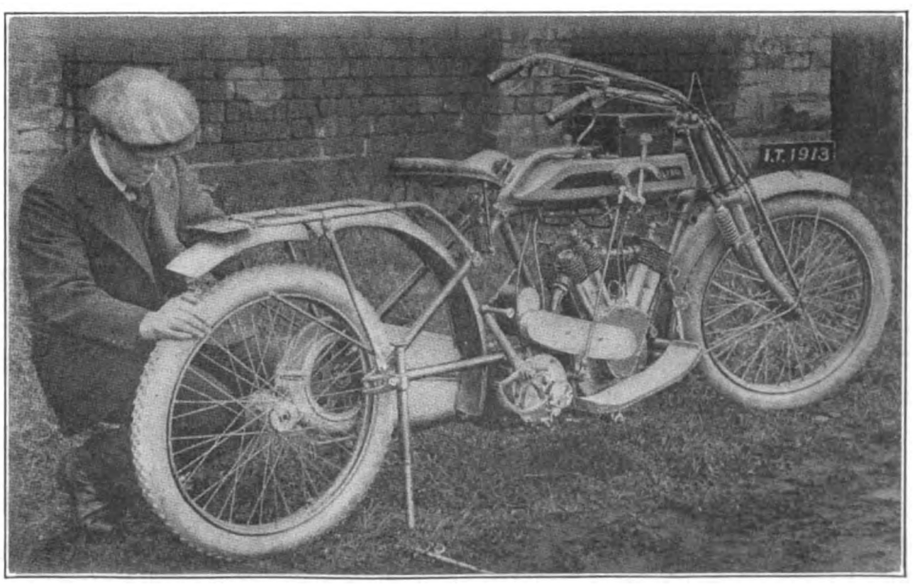
Only two of the mufflers showed particular originality, and neither of them promises to reveal exceptional technical merit. One—the Warby—incorporates two cooling fans, rotated by the rushing gases, and alleged to produce a cooling effect; the other consists of a series of miniature mufflers, resembling the rose of a garden watering can; any number of these may be threaded together on a spindle to form a complete muffler giving the exact degree of silence preferred by the user. This device is known as the Macbeth, and its greatest merit is that the gases are in permanent contact with external surfaces throughout their travel, and so should cool off fast.

THE WALL PARCELCAR.

THIS uncouth title describes a rather novel light delivery outfit recently marketed by one of our oldest firms, and shown in the accompanying cut. Threewheelers are very popular with business firms in our principal cities, owing to their light upkeep and nippy turning qualities. The machine in question can almost turn right about face in its own length, and like most two-wheel-astern tricycles, never skids. The frame is built of enormously stout tube—2 in. diameter, and the big 86 x 96mm. engine in front drives by a shaft to the gearbox (two-speed) mounted just in front of the differential rear axle. The steering wheel absorbs all road vibration, being of the stirrup type, mounted on a long flat strip of spring steel. The obvious technical defect of the outfit is the fact that the weight is concentrated too far astern, causing the front wheel to lift unduly at high speeds over bad going; but it is astonishingly comfortable at traffic speeds in city work, and is remarkably fast in snatching a path through crowded streets; it can insinuate its way where a big fourwheeler would be hopelessly blocked.

COMPETITION CLASSIFICATION.

THE objectionable word "novice" has been eliminated from our governing body's new classification of competition riders, and in future we are all to be ranked as "experts," or in the "general" class, events and prizes being reserved at all meetings in large quantities for the "generals," a rider being transferred into the "expert" classes after one or two victories. A roll recording all performances in club and open events is already at work. So the old classification of "trade rider," "amateur" and "shamateur" is as dead as a donkey, and the new scheme should work well, especially when the first



English Clyno Machine, Showing Convenience of Detachable Rear Wheel.

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half dozen events of the season have exalted most of our cracks into the upper house.

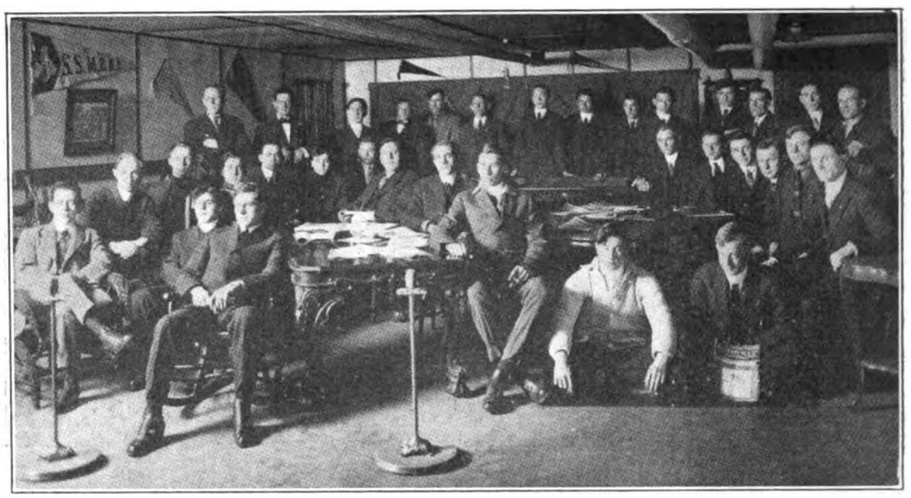
Towards the end of the season the "general" classes will be fiercely contested by a weird assortment of duffers, for the men who know a little will mostly have qualified as experts by then. It is questionable how far the scheme will secure a fair chance for the genuine amateur, owning a single stock roadster, which he tunes up without factory assistance. I can see the autumn "general classes" being won by duffers riding special machines tuned up by the factory expert; while the average sporting amateur will by then be qualified as an expert, and forced to ride against the "expert," as heretofore. Verily, it baffleth the wit of man to make a fool appear as though he were not a fool.

THE SIDECAR BOOM.

AS I have ceaselessly prophesied, the premature boom in cyclecars has utterly failed to scotch the pre-existent boom in sidecars, and many of our "nuts" think nothing of expending $100 on the attachment. One of the most popular is the "Canoelet" sidecar, which in the opinion of our doggiest boys is "absolutely it" just now. The chassis shows fully enclosed spring shock absorbers, adjustable from grandmamma to the latest thing in a Merry Widow billiard lamp shade, and so silky to sit over that they scarcely need the addition of the usual long Cee springs. The body outlines show a neat streamline chair in rolled aluminum panelling with storm apron complete.

We are learning one tip which some of your makers may do well to take to heart. We had a surfeit of broken sidecar axles last year. It is impossible to make these too thick, or to use too stout a steel for them. In fact, some of our more conscientious makers make a point of fitting some thing underneath the axle, to prevent the contraption turning turtle if the axle snaps. The sidestrain on the axle of a car attached to a luridly driven 7-9 h. twin on rough roads baffles description. One maker fits a strut underneath, carrying a small solid tired wheel on its toe; this serves as a stand during tire repairs, and gives the driver half a chance to pull up safely if the axle snaps.

GOUSTKRS KAHOROS, the Greek rider who is making a tour of the world on a Flying Merkel motorcycle, arrived in Washington, D. C., February 7, having covered 4,890 miles of the tour. He announced his intention of remaining in Washington until after the inauguration, March 4.



MEMBERS of the South Shore Motorcycle Club, of South Chicago, are shown in the accompanying photograph, which was taken recently at the opening of the new headquarters, located at 9119 Commercial avenue. The club room is one of the coziest in Chicago, is steam heated, electrically lighted, and is equipped with coat and wash rooms, piano and pool tables.

Agent Brown, who handles the Excelsior and Emblem machines, was on hand and after making a few remarks on club fellowship and co-operation he donated the use of the clubroom for the first year, it being located in his building. The room was fitted up mostly at his expense.

The present staff of officers of the South Shore M. C. is as follows: President, A. E. Walkowiak; secretary, W. J. Hughes, and treasurer, W. J. Behnke.

GOOD ROADS FOR ILLINOIS

NO less than 600 delegates attended a recent convention at Springfield, Ill., for the purpose of advancing the good roads project in that state. Governor Deneen, who welcomed the delegates, was strongly in favor of the improvements which were suggested during the session and promised to do all in his power to aid in the work. Senator Homer Tice was on hand and outlined some of the features of the bill he will introduce in the Senate at its present session. Congressman Morris was also present and promised to cooperate in every way with the delegates.

The good road advocates are being further encouraged by the new governor, Edward F. Dunne, who has declared himself in favor of the road improvements. The governor's idea of an ideal good road bill includes state cooperation with county or township, the compulsory dragging of roads and the use of the funds from the state automobile registration for good road work. He would also have convict labor employed on the preparation of materials for the roads and in maintaining the roads after they are constructed.

BAKER'S 1912 RECORDS

EXTRACTS from the 1912 motor diary of E. G. Baker, the Indianapolis specialist, in wide-open throttles, give some interesting figures as to his gasoline mileage from December 14, 1911, to December 14, 1912. During the year his road mileage was 17,584, and his track mileage 1,583, making a total of 19,167 miles. Out of the 86 races in which he competed he lost only 13. He took 53 firsts, 9 seconds, and 11 thirds. He hung up 12 track records and finished with perfect scores in three endurance runs.

NEWSPAPERS IN LINE

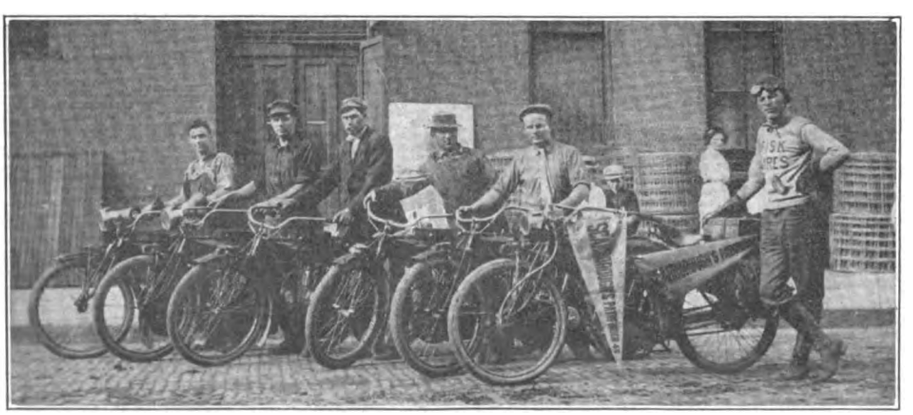
THE *Morning Sun,* of Coffeyville, Kan., has just purchased an Excelsior twin to be used in its news and business department. This is the second local paper to use a motorcycle. The Lowe Printing Company has also purchased an Excelsior for the purpose of rushing proofs to its patrons. Clyde King, city engineer, has placed an order for a 1913 Indian.

SPEAKING OF CAPS

FROM the *Irish Cyclist,* of Dublin, Ireland: "Photographs of American motorcyclists, as seen in the pages of our exchanges from the states, show that they invariably wear their caps with the peak in front! In spite of this great technical oversight, however, they apparently manage to get as good sport from the pastime as their brethren on this side, whose idea seems to be that motorcycling and the normal style of wearing headgear are absolutely incompatible!"

COBB IN THE RANKS

NO less a personage than Tyrus Raymond Cobb—yeah, ole Ty Cobb—is an honorary member of the Augusta (Ga.) Motorcycle Club. At a recent race meet in Augusta Ty acted as official starter. He is something of a motorcycle enthusiast, and has participated in club runs.



Indian Riders of Boone, Iowa, Acting as Escort to Pathfinder H. A. Stewart (at the right) on One of His Map Making Trips for the Scarborough Company.

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Questions & Answers

ELECTRIC LIGHTING

H. E. TABLER and E. M. Blaylock.—1. Electric lighting for motorcycles is a practical proposition and is considered by some riders to be the most efficient type of illumination.

2. Prior to the advent of the wire drawn Mazda lamps, the old cry "the electric lights are no good" because the filament was one continuous source of trouble due to breaking, had just grounds for complaint. Now, however, it is a rare thing to hear of a "Mazda" filament breaking. Its efficiency is above all other types, operating as it does at 1.23 watts per c. p. as against a much higher voltage in other forms of lamps.

3. An ideal equipment consists of a 4 c. p., 4-watt "Mazda" lamp, taking two amperes. The headlights are very compact and are easily adjustable for either beam or focus. It is extremely important that the proper focal length be maintained to throw a maximum beam of light ahead. A good idea is to scratch a mark on the slider of the headlight, and thus be sure that the proper focal length is being used.

4. It has been proved that a small object lying in the road is clearly visible at 100 feet and that a vehicle is discernible at approximately 500 feet, when an equipment is installed as specified above, provided the right focal length is utilized.

5. A 2-volt 20-ampere-hour battery is the most suitable with the above equipment. Its size, about 3½ x 3½ x 7 inches, permits of its being stored in the tool box.

6. Different types of batteries are in the market, the type giving the most reliable service being the jelly electrolyte type.

7. Of course, the battery requires frequent recharging. About nine or ten hours of continuous light is all that can be obtained from the above type of battery. It is practical to install two batteries with a throw-over switch, and thus double the length of service of the source of supply.

8. The proper size of wire to use is 12 or 14 B. & S. rubber covered, duplex wire.

9. It is a good practice to tin the ends of the wire before securing them to the fixtures, so that none of the strands can unravel and cause a ground or short circuit. The two-wire system should be used. Under no circumstances should economy be sought by installing only the one wire system, using the ground as a return, as trouble will surely result.

10. The headlights, wiring, batteries, switches, etc., are standardized products. Numerous firms carry them, among which are the General Electric Co., 30 Church street, New York City; Manhattan Electric Supply Co., 17 Park Place, New York City.

GEARING AND SPEED

FREEPORT (Ill.) RIDER.—The gear for the 9 horsepower machine mentioned would be in the neighborhood of 3.12 to 1, and the speed at 2,800 revolutions per minute would be 74.6 miles per hour. See the gear ratio and speed table, page 60, of our October 17 issue. Individual motors might take a 3 to 1 ratio and at 3,000 revolutions give 82.8 miles if a "billiard table" road was traversed. But such a performance would probably be very exceptional.

CONVERSION OF DRIVE

JOHN H. MARK.—(1) A change from belt to chain drive could be made, but some sort of compensating device, a sprocket, for instance, is necessary. Many motors which run well with belt drive do not stand up with chain drive due to improper use of the clutch, etc., so that the compensator is very desirable. A gear of 4¼ to 4⅜ to 1 should give good hill-climbing ratio in general. Fix the sprocket to the wheel hub in preference to the spokes, or provide it with spokes of its own to the hub if the design of the latter will permit of this.

(2) We suggest that you have the double chain drive, as a single chain for a 4:1 gear will have a very small engine sprocket and a large wheel sprocket, conditions which are for from favorable to good chain performance. We do not advise reforming the front fork for use with a chain on the tire, as the fork might be weakened by bending out of line. The better method, although the most expensive, is to have a new crown put in place of the present one. The cost of all but the last operation might run as high as $35, figuring time at 60 cents the hour.

BALKS ON HILLS

R. SANDERS—First try giving more gasoline in proportion to the air than you do at present. This may be the chief cause of your failure to negotiate hills. Go over the machine for misalignment; see that the clutch does not slip and that it takes hold when you want it to. Does the brake drag? When riding a hill, rush it, but give the gas gradually, do not "dump" the throttle into the motor, as you will be sure to choke it up or at the least slow it down to such a point that it will not climb hills. Do not be in a hurry to advance the spark or give gas unless an emergency arises.

INSULATION QUERIES

LOUIS TISHER—Sealing-wax is a good insulator, but will not stand much vibration as a rule, and will crack away. Some of our correspondents have used a rubber cement on leaky cables and have got good results, while for bare wires, they coat with cement and then use electricians' tape as a protector. A naked wire is out of place on a motorcycle and should be replaced by a cable or insulated wire as soon as possible. For figures, etc., on paraffine, write the Standard Oil Company.

THE WRIST-PIN

GEORGE FRENCH—The wrist-pin is that pin which passes through the piston and serves to connect the piston with the connecting-rod. It is sometimes called the piston-pin, by reason of its passing through the piston. The wrist-pin is usually made fast in the piston while the upper or "small" end of the connecting-rod is furnished with a bushing or brass in which the wrist-pin can turn as the rod oscillates during each stroke. In a few cases, however, the wrist-pin is fast in the small end of the connecting-rod, and the bushings are in the piston. A good way to remember where the wrist-pin and crank-pin are respectively, is when holding the hand upwards; the wrist represents the small end and wrist pin, while the elbow represents the crank crank-pin, and the "big end."

PLUGS AND CARBON

C. D. BREMER.—Carbon deposit due to burnt lubricating oil or to too rich a mixture are the chief causes of dirty plug electrodes. Water in poor gasoline is frequently deposited on the plug points also. Carbon is a good conductor of electricity; it is used to "collect" the current from the slip-ring of the magneto and pass it to the spark plug. The carbon is in the form of a pencil or "brush." Being a conductor, the current goes across the plug gap, through the motor, and returns to the magneto as when no carbon is on the points. No spark passes, however, and misfiring occurs, since the deposit bridges the gap between the plug points.

WEAK REAR CYLINDER

C. A. SHAW—Look for leaks in the manifold or inlet pipe and see that the connection between the pipe and the dome is tight. How are the baffle plates in the rear cylinder? If they are broken or absent, the cylinder will get too much oil and carbonizing will result. Look for leaks also in the bayonet joint where the dome fits into the head. Smear oil or soap-water on the piping or joints with the motor running, and if there is any sign of sucking in the oil or water, there is the leak. With auxiliary air valves on each cylinder you should have no trouble in getting a good mixture for each cylinder.

TWO-CYLINDER OPPOSED MOTOR

ROSCOE ROYAL—Our lists and files give no instance of a maker of two-cylinder opposed motors for motorcycle use, and unless it is an isolated instance, we therefore cannot give you information as to the sale of such a machine. Some two years ago, an unknown writer announced such a type of motor for which great things were claimed, but nothing further has been heard of it to date.

RENEWING THE POINTS

EL. A. SCOTT.—We think that the platinum points are too badly worn to enable adjustment to be made, so advise renewing them. The fact that you get a fat spark when the metal bit is put on indicates this.

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MANUFAC

A POPULAR TIRE EXPERT

C. J. WELCH, of the United States Tire Company, who is manager of the motorcycle department of the central district, with headquarters in Chicago, is very enthusiastic about the motorcycle situation for 1913. Mr. Welch stated at the recent New York Show that the tire business is a fair barometer by which to gauge the

motorcycle business generally, and that there is every indication that at least one hundred thousand motorcycles will be sold during the present season.

In discussing the tire business, Mr. Welch stated that his company's motorcycle business has increased more than five hundred per cent. this season over the corresponding period of 1912, and that judging from the present shipments, the United States Tire Company will enjoy a still greater increase before the season is well advanced. The demand for Chain-tread and Nobby-tread motorcycle tires is increasing so rapidly that the United States company's Indianapolis plant has been forced to increase its equipment for the manufacture of these popular non-skid tires, and is working twenty-four hours every day.

Mr. Welch has been identified with the motorcycle tire industry for the past seven years, being connected with Morgan & Wright, of Detroit, and with the United States Tire Company since its organization. Mr. Welch enjoys a wide acquaintance in the bicycle and motorcycle trades and is one of the most popular men in the industry.

DOUGLAS AT HENDEE PLANT.

W. W. DOUGLAS, of Douglas Brothers, manufacturers of the Douglas motorcycle, and third largest builder of the motor two-wheeler in England, was a recent visitor at the Indian factory at Springfield. He was amazed at its size and at the methods of production, as the largest motorcycle manufacturer in England has an annual output of only 6,000 machines.

CHANGE IN MANAGERS

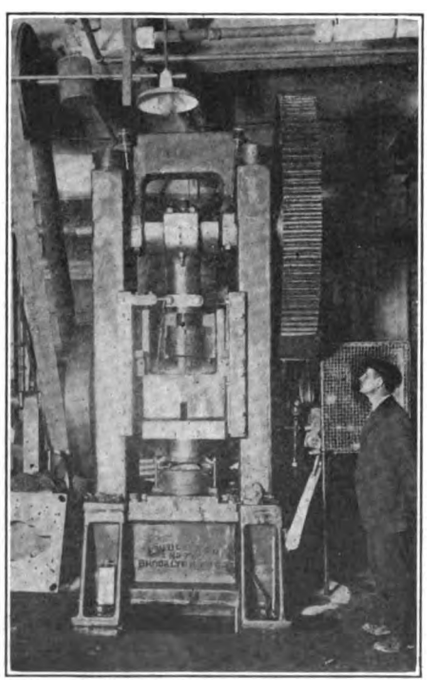
E. H. PARSONS has been succeeded by J. A. Maroney as manager of the St. Louis (Mo.) branch of the Goodyear Tire & Rubber Company. Mr. Parsons has been advanced to the managership of the St. Louis district, which embraces cities in Missouri, Oklahoma and Texas.

A MONSTER PRESS

HOW complex the manufacture of quality motorcycles has become, is shown by two recent purchases of the Harley-Davidson Motor Company. The twelfth press added to the press room equipment weighs 33,000 pounds and cost $3,250, or nearly ten cents a pound. Five floors above this monster press is a tiny electric furnace —the only electric furnace in Milwaukee.

The big press, used in the manufacture of pressed steel parts, and the little electric furnace used for special hardening work are necessary parts of the equipment of the Harley-Davidson factory. An idea of the size of this huge press can be obtained by comparing it with Walter Davidson, the company's president and general manager, who is shown standing beside it in the photo. It will be observed that his head hardly comes to the bottom of the large drive wheel of the main shaft. Back of him can be seen the guard built around the gear mechanism to protect passing workmen and the employees who operate the press.

The connecting rod on this monster is 7 inches in diameter. This big press can deliver a stroke of 285 tons; it can stamp



out a blank of steel 2 inches in thickness and 2 feet in diameter without any more fuss than would be shown by a housewife in cutting out a biscuit.

EWELL BACK FROM TRIP

R. G. EWELL, secretary of the American Motor Company, of Brockton, Mass., has just returned from a Western trip during which most of his time was given up to interviewing agents and salesmen and studying conditions at the various distributing points. Mr. Ewell gave up much of his trip to the State of Ohio, and he reports

unusually bright prospects for 1913 motorcycle business in the vicinity of Akron, Cleveland and Columbus. He states that the new chain-drive Eagle is making friends on all sides and that dealers are remarking the unusual number of cash orders.

Mr. Ewell states that the clay roads of Northern Ohio are putting a damper on motorcycle sales in that section, but that a rush is expected as soon as contemplated road highway improvements are carried through.

POPE GENEROSITY

AN amusing incident occurred at the booth of the Pope Manufacturing Company, at the New York Show, in connection with the distribution of pocket-pieces similar to half dollars by one of the Pope salesmen. The company was giving as souvenirs aluminum and silver medals which resembled American half dollars, and this particular salesman, after handing one to a dealer and calling attention to the generosity of the firm, discovered that he had handed out a genuine half dollar out of his own pocket.

VISITED EXCELSIOR PLANT

DURING the week of the Chicago show a party made up of prominent trade men paid a visit to the Excelsior factory, and were conducted through the big plant by President Ignaz Schwinn. The party was made up of George M. Hendee, F. J. Weschler, Dave Smith, W. H. Crosby and Fred Johnson, the latter of the Iver-Johnson Company. After the inspection trip the visitors complimented Mr. Schwinn upon the part he is playing in the development of the American field.

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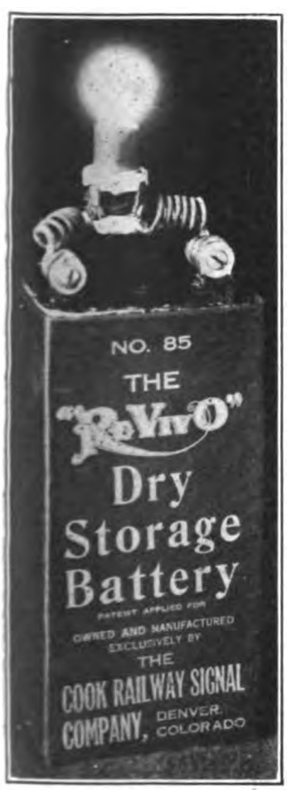
TURERS

TIRE CHAIN SUIT

A TEMPORARY injunction has been obtained in the United States District Court at Chicago by the Parsons Non-Skid Company and the Weed Chain Grip Manufacturing Company to restrain several firms from disposing of the stock of chains made by the Perry Manufacturing Company, of Lansing, Mich., which they have in their possession. The parties affected are: Emil J. Crimske, individual members of the E. Z. On Chain Tire Protector Company, the Hartley Manufacturing Company, Manufacturers' Auto Tire Company and the Whitaker Manufacturing Company. It is claimed that the Perry chain infringes the Parsons patents, with the exception of a wire spring, which is so frail as to be easily broken off, according to the statements of the complainants. When this spring is removed, it is alleged, there is no material difference between the Perry product and the Weed chains.

A NEW BATTERY

A NEW type of dry battery, which can be easily recharged, even when entirely exhausted, and which is manufactured in a type especially adapted for motorcycle lighting, has just been perfected in Denver, Col., by the Cook Railway Signal Company. The new battery is pronounced exceptionally light and compact, and while it can be recharged the same as the wet type of battery, it contains no acids or fluids and so does away with the annoyance of leakage. The type intended especially for motorcycle lighting, miners' lamps and the like, is made in three sizes, ranging in weight from twenty-two to fifty-seven ounces, and will last nine hours on one charge.



One of the batteries may be badly broken and have the appearance of being utterly worthless, but when the broken parts are bound together in their proper relation the elements will be found to be still active and capable of burning a light for several hours.

AN ECONOMY WINNER

IN a recent economy contest of the Atlantic City M. C., P. Gravatt, riding a Pope "Big 4" established a club record. He covered 24¾ miles on one pint and 14 ounces of gasoline. W. B. Hardee (Haverford 4), was second, with one quart and 2 ounces, and Thomas Newman, riding a Thor 4, was third with

3 pints. Gravatt, who was also winner of the recent beach races at Atlantic City, is shown in the accompanying photograph.

CLAIM PATENT INFRINGEMENT

BERNARD MORGAN, of Newport, R. I., has brought suit against the Thirty-Five Per Cent. Automobile Company, of New York, claiming an infringement of his patent on priming cocks by the act of the defendant selling Champion spark plugs, made by the Champion Spark Plug Company, of Toledo, Ohio, which produces both automobile and motorcycle spark plugs. The Champion plug in question is of the so-called priming type, consisting of a plug, the shell of which is threaded with an inclined passageway, into which fits a priming cup, screwing into the bored portion of the plug. When the cup member is screwed tight into the thread in the plug, a needle formed on the end of the cup member makes a tight fit against the plug shell, keeping gases from leaking out through the passage.

MEETING OF SALESMEN

SALESMEN of the Western Electric Co., of New York, which recently combined with the Pittsfield company, met in Chicago not long ago for a program in which business and entertainment features were admirably merged. The week was a busy one, and the results are expected to be far-reaching in the company's sales organization.

BOSCH MAGNETO EXHIBIT

TO demonstrate the universality of Bosch products throughout the entire field of internal combustion engine endeavor, is the purpose of the exhibit of the Bosch Magneto Company, at the Motor Boat Show in Madison Square Garden, New York, this week. The magnetos shown range from the DA2 and ZEV motorcycle types through the field of four, six, and eight cylinders up to the gigantic equipment for stationary gas engines of 500 horsepower and upwards.

TO ENLARGE LINE

RIDERS who are acquainted with any of the high-grade products that go to make up the line of the L. Wilson Novelty Works, of 222 South Clinton street, Chicago, will be interested in the announcement that the firm is preparing to market a series of motorcycle mudguards. Long experience in the production of bicycle guards has fitted the company to step into the motorcycle field under most auspicious conditions. Not the least important feature of the firm's announcement is that A. B. Coffman will act as its sales representative, with headquarters at 6 Glenwood Court, Toledo, Ohio.

NEW J-M TRAVELER

C. L. WHEELER has joined the staff of the H. W. Johns-Manville Company, of New York City, and will represent the firm as traveling salesman, his headquarters being in Atlanta, Ga. The feature offering of the Johns-Manville Company for motorcyclists is an improved spark plug.

ONE of the trade hustlers who did not figure in the personal items incidental to the Chicago Show number, probably for the reason that he did not remain in a given spot long enough for the scribes to locate him, was L. B. Lyman, sales manager of the motorcycle department of the B. F. Goodrich Company. Mr. Lyman was kept on the jump between the independent motorcycle shows and the automobile exhibition at the Coliseum, and official figures show that his mileage for the week was a record-breaker.

"The manner in which business piled up amply repaid me for the effort to be in two places at the same time," explains the genial Lyman.

"Long John" O'Connor, whose publicity war-whoops have earned him recognition as a full-fledged warrior of the Indian Wigwam at Springfield, Mass.

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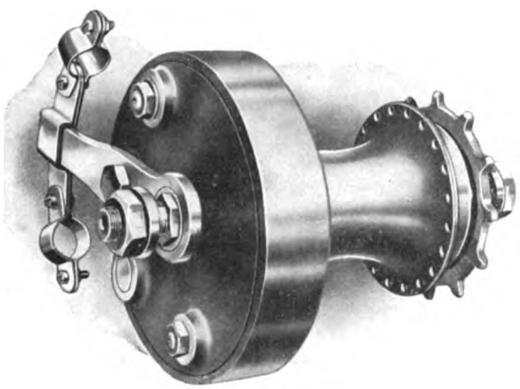
NEW DEPARTURE BRAKE FOR 1913

Simplicity of Construction and Ability to Exert a Retarding Force Sufficient to Hold an Automobile are Features Which Make Improved Product of the Bristol Firm Vitally Interesting to Motorcyclists—The Mechanism Described and Illustrated.

IN these days of long tours and of extraordinary tests for the motorcycle and its equipment, experienced riders are paying more attention than ever before to their braking systems, for it is obvious that the lack of a



Model "L," for Belt Drive Machines.

dependable brake at a crucial moment will set at naught all other precautionary measures for which the rider may have provided. As the 1913 motorcycle is intended to balk at nothing in the way of a hill, it is to be expected that tourists will subject their machines to more severe trials on heavy grades than in years past, and it is with a view of meeting these conditions that the New Departure Manufacturing Company, of Bristol, Conn., has brought into play the greatest skill of its designers and mechanics in the production of its new coaster brake. The New Departure Company makes the unconditional claim that its 1913 brake is strong enough to hold an automobile, and that its simplicity of construction practically eliminates mechanical troubles.

Brake Drum Interior.

The improved brake, which is fully illustrated on this page, is operated from the pedals, and a back pedalling pressure of seventy-five pounds will exert a retarding force of a ton and a half in the brake drum. The mechanical construction, aside from the brake end, is almost identical with that employed in the New Departure coaster brake for bicycles, with provision made of course for heavier parts throughout to withstand the extra strain of motorcycle service. It will be noted in the illustration of the brake drum interior that the operating mechanism is extremely simple. The brake shoes are spread so as to give frictional contact with the inner wall of the drum at all points. The brake spreader cam is arranged in a slot so that one brake shoe cannot take a greater proportion of the braking stress than the other. As a heavy spring is provided for returning the brake shoes to a position out of contact with the wall of the drum when the brake is released, it is impossible for the mechanism to bind or stick. The surface of the brake drum has a series of milled grooves which break up the oil film and also serve as reservoirs of lubricant to insure positive engagement and prompt release.

The New Departure company calls special attention to the fact that all parts of the brake mechanism are protected from dust and grit, and that no part is so exposed that it can work loose or sustain damage in hard road service. Steel is used in the brake construction throughout; all the essential parts of the mechanism are made of the best alloy steel, specially treated. The axle is one-eighth of an inch thicker than is used in the heaviest motorcycle construction, and the ball bearings are unusually large; 7/16-inch balls are used, with the automobile type of separator. The brake shoes are drop forgings of special steel. In designing the brake the company subjected all kinds of frictional braking materials to exhaustive tests, and the steel shoes were selected as being the most efficient and durable.

The actuator cam lever and the bearing on which the actuator pivots are drop forged in one piece, thus preventing the parts from working loose or wearing unevenly. The brake drum is fastened by the electric spot welding process to the hub, in order to obviate the danger of parts working loose, as is often the case where riveting or screws are resorted to. On the chain-drive model the flange to which the motor drive sprocket is attached is spot welded to the drum so that the parts are practically integral. The sprocket is attached by bolts so that it may be removed when necessary.

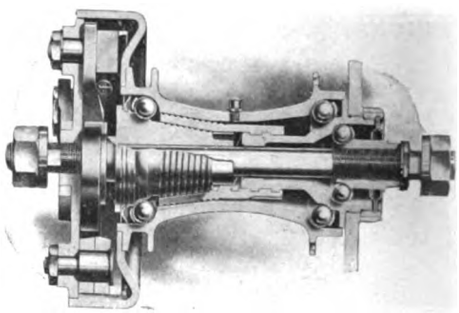
NEW CYLINDER OIL

MOTORCYCLISTS who have experienced difficulty in obtaining an entirely satisfactory cylinder oil will be interested in Maroline, a new motorcycle oil that has just been placed on the market by the Marshall Oil Co. It is claimed by those who have given the new lubricant a thorough test that it shows surprising results and is well adapted to meet the special needs of the motor two-wheeler. Students of the motorcycle lubrication problem agree that a strictly mineral oil should be employed. Oils that are compounded with animal or vegetable fats contain acids which decompose under heat and form pitch, and for obvious reasons they are unsuitable for motorcycle use.

The Marshall company's new product is credited with being a strictly mineral oil. In addition it is stated that particular care has been exercised in determining the flash point of the Maroline lubricant. Experience has shown that oils having too high a flash point pass the piston rings when overfed and enter the combustion chamber where their high flash point prevents them from being volatilized and burned away cleanly. As a result they act as collectors of carbon and ultimately cause trouble.

NEW J-M SPARK PLUG.

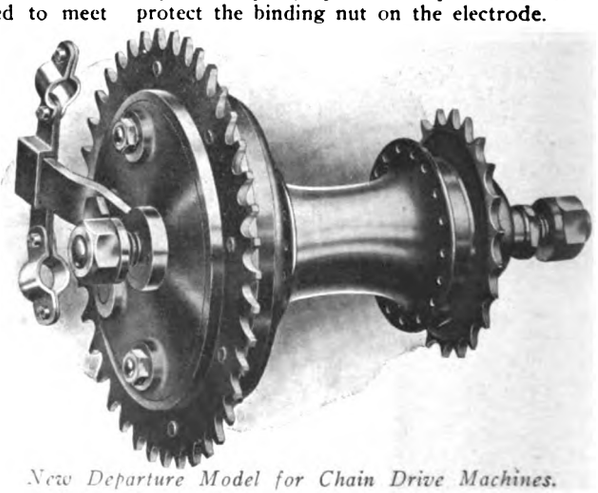
A NEW arrival in the ranks of spark plugs with special adaptability to the motorcycle is the J-M, which is being offered by the H. W. Johns-Manville Company, of New York City. This plug is credited with combining the desirable features of both the all-porcelain and the all-mica types of plugs, through a judicious use of porcelain and mica for insulation. The J-M plug is designed especially to prevent short-circuiting or troubles likely to be caused by oil, water and carbon. If the porcelain becomes broken the plug's sparking ability is not impaired. There are essentially



New Departure Brake in Section.

but two parts to be handled by the user, the shell of steel which threads into the motor and the electrode unit, consisting of the center firing pin and the insulation.

The center firing pin is surrounded by layers of tightly wrapped sheet mica. The mica tube is protected from oil, water and possible disintegration by a substantial porcelain. The porcelain also adds to the insulating value of the plug. The outer or ignition end of the plug is fitted with a brass cap, surmounting the porcelain and protecting it from any ordinary injury. This cap also serves to protect the binding nut on the electrode.



New Departure Model for Chain Drive Machines.

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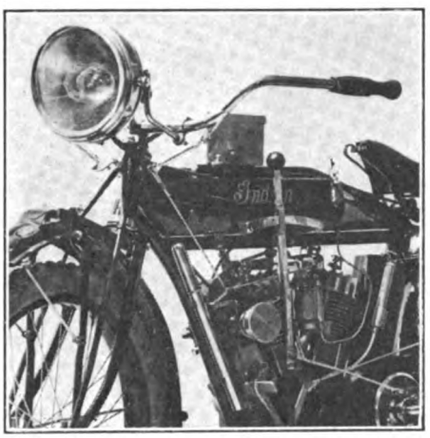
FEATURES IN JENKINS SPECIALTY LINE

ONE of the most attractive offerings of Jenkins & Co., of Des Moines, Iowa, is the "Jenco" spring carrier, which is made to fit all machines. This carrier is equipped with footrests and is handsomely nickel-plated. It is constructed of the best material possible and, owing to the care with which the springing principle is applied, the fitment shows no side-sway. A patent covering the attachment has been applied for.

The special "Jenco" spring attachment for Indian machines has a base made of ⅝-inch, five-ply veneer wood and is upholstered with high-grade hair. The tension of the springs on both carriers has been shown to be correct, in long tests, and it is noteworthy that the base is adjustable for any weight. The carrier for Indian machines was originally fastened by ¼-inch bolts, running through the carrier tubing, but the method of attaching has been changed; the firm now uses a full nickel clamp, which fits around the carrier tubing, making it very neat and easy to attach, and at the same time avoiding undue strain upon the tubing. Footrests are supplied for this carrier when specified. The price of the regular carrier is $6, with footrests. For a dollar extra a genuine leather pad is furnished, made with round corners to fit the carrier exactly. The upright bolts on the top of the Indian carrier and those on top of the firm's steel top carrier are of the same size so that the two tops are easily interchangeable.

"Jenco" Spring Attachment Ready for Passenger Carrying.

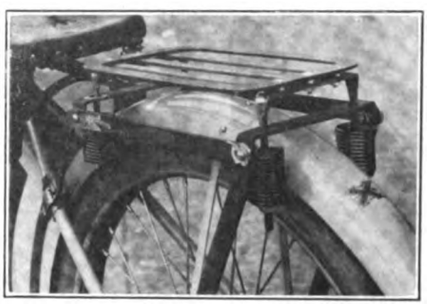


The Jenkins Electric Lighting Outfit.

Special attention is also being called to the electric lighting outfit offered by the Jenkins company. In the illustration shown the dynamo is run directly from the engine and is capable of furnishing more current than is needed for any motorcycle lamp. The bulb used in the headlight is of 25 candlepower and the lamp may be had with 7 or 9-inch front.

The company provides three lighting outfits, one the dynamo and governor, sending the current direct to the head and tail-lights; another in which the dynamo sends the current to a storage battery, with an automatic cut-out to do away with overcharging the battery. The third outfit includes simply the lights and the battery. The battery is quite small and can be hung from the handlebars. For this system the firm supplies a 6-inch parabolic head and a Tungsten globe is used, rating from 2 to 8 candlepower. The covering of the battery is indestructible.

Announcement is made that the Jenkins company will be ready for deliveries about March 1, and in the meantime detailed literature will be prepared to tell the interesting story of the firm's specialties. The lighting outfit shown in the photograph was run on the inventor's machine all last season and proved its dependability as well as its ability to give a powerful, far-reaching light.



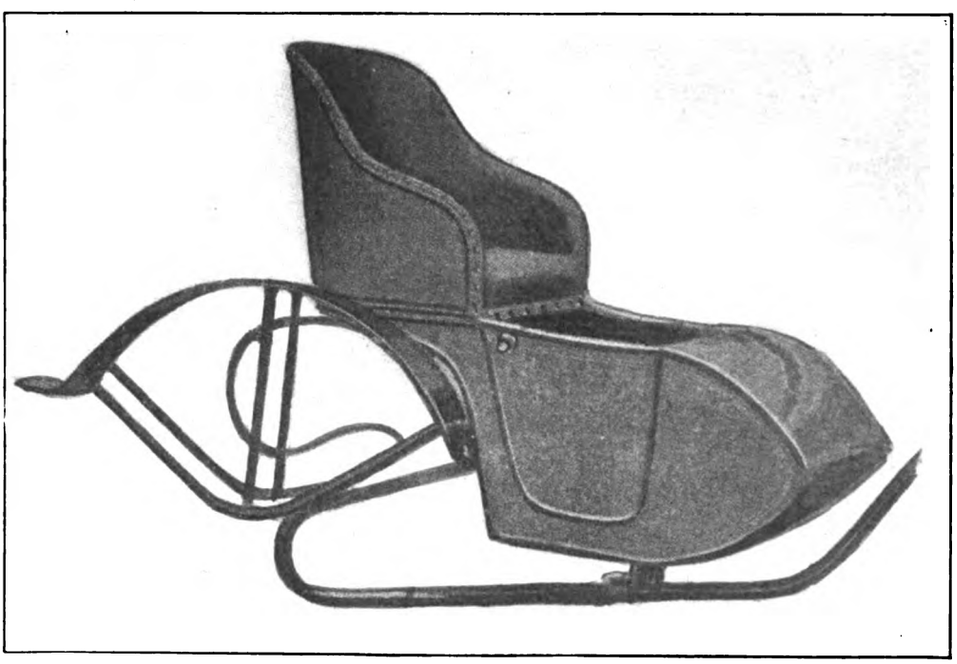
Spring Carrier of "Jenco" Design, Built for Hard Service.

ATTRACTIVE "ANDERS" SIDECAR MODELS

MOTORCYCLISTS who are turning their eyes toward 1913 sidecars will find plenty to interest them in the line of "Anders" passenger attachments manufactured by the National Cycle Accessory Company, of Aurora, Ill. This firm makes several models for both pleasure and commercial purposes. One of the leading types is the torpedo model, fitted with side door and finished in white enamel and genuine buff leather. It is equipped with a leather top and curtains.

Another model has a phaeton body with storage room under the seat, and is finished in red with genuine leather upholstering. A third type is a delivery van, finished in blue and so constructed as to give maximum strength and durability with minimum weight. This van is proving an excellent vehicle for R. F. D. work, being fitted with rear or top doors to facilitate the handling of matter carried in it.

The National Cycle Accessory Company makes several other models of sidecars, each holding out special inducements for the thoughtful motorcyclist. One of the types for which there is a constantly increasing demand is a combination pleasure and business vehicle. It has a roomy semi-box body supporting a comfortable seat.



One of the Pleasure Types in the "Anders" Sidecar Line.

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CONQUERING BELT TROUBLES

Experience in England Proves That with Large Engine Pulley and Belt of Reasonable Size This Type of Transmission Is Capable of Meeting All Demands, Even for Heavy Going with Sidecar Attachment—Some Figures.

By Britisher.

THE main contrast between the English and American motorcycling markets is that the belt is facile princeps over here, and that the chain seems more characteristic of your favorite practice. Sterner work may have something to do with the seeming preference for chains in the states, but some recent experiences of my own may indicate another possibility. In the season of 1910 I was riding a light single-geared 3½ h. racer, with an engine of the high-speed type. I normally drove it with a gear of 5¼ to 1, on which it could beat fifty miles an hour, and was very handy on country grades, and in city traffic.

The makers were of the get-rich-quick type, and fitted a very cheap belt of small size; its cross section was only ⅞ inch. Well, I had a most cheerless time with the transmission of that machine. In dry weather I was constantly repairing pull-throughs, and I seldom essayed a prolonged jaunt without carrying a couple of spare belts looped picturesquely round my lamp, carrier, waist, or handlebar; in wet weather the brute was practically unrideable, for the belt began to slip permanently as soon as I spied a puddle on the road. When I sold it, I bought an Indian, for my stomach was gorged with belt drive. Like most journalists I make it a principle to familiarize myself with as many types of jigger as possible, and I never buy two samples of the same make consecutively.

When the Indian had served its time, I rather timidly invested in a first-class English belt driver. This had a large engine pulley, a multi-speed hub, and a 1⅛-inch belt of best make. This mount revolutionized my notions of the belt. I never had to stop to tighten or rejoint the accursed thing when the roads were dry; and in rainy weather on roads awash I might have had a chain beneath me for all I knew about it. With and without a sidecar I have attained huge mileages, and I have come to the conclusion that the belt is good enough for anything, provided one uses a big belt of good make on a big pulley. Of course, the three-speed gears which are now the touring standard over here, enable us to retain a 4½-inch engine pulley under all conditions.

FREED'S LETTER

FOLLOWING is a copy of a letter which has been forwarded by A. Freed, of San Francisco, to the Aurora Automatic Machinery Co., the Excelsior Motor Mfg. and Supply Co., and the Harley-Davidson Motor Co., with reference to alleged infringement of a patent which has recently been assigned to him:

"When I saw you on my trip to Chicago in November, I stated to you that your manufacture and embodying in your motorcycles of the saddle mounts or spankers which you were then using and are now using were and are infringements upon the patent belonging to me. That patent has since been issued, and the number thereof is 1,050,925, issued in the name of Abram W. Duck, of Oakland, California, and an assignment to me of which patent is of record in the office of the Commissioner of Patents of the United States. The application for this patent was filed March 14, 1912, serial number 683,699. This is to notify you that I shall hold you strictly responsible for your use of said mounts or spankers and for all infringing on my rights under this patent, and I shall expect you to account to me for the use already had thereof, and shall hold you to account for all future use thereof."

Mr. Freed states that he will forward similar letters to the Excelsior Cycle Co., manufacturer of the De Luxe machines, and the Davis Sewing Machine Co., of Dayton, Ohio, maker of the Dayton motorcycles.

COUNTER SUIT FILED

FROM Detroit, Mich., comes the announcement that the Zenith Carbureter Company, of that city, has taken legal action against the Stromberg Motor Devices Company, of Chicago, maker of the Stromberg carbureter, for infringement of the Baverey patent, No. 907,953, under which patent it is stated that the Zenith company is manufacturing its present type of carbureter. Unusual interest attaches to the action in view of the fact that not long ago the Stromberg company filed suit in the Federal Court, of Detroit, against the Zenith company, seeking an injunction to prohibit the latter firm from producing its carbureter on the grounds that it was an infringement of two patents owned by the Stromberg company.

PREST-O-LITE SUIT DISMISSED

JUSTICE SPIEGELBERG, in the Municipal Court, of New York City, Borough of Manhattan, recently dismissed a bill of complaint brought by the Prest-O-Lite Company, of Indianapolis, maker of automobile and motorcycle gas tanks, against the American Auto Supply Company, of New York City. The complaint claimed that the defendant had filled a tank of the Prest-O-Lite company with acetylene gas produced by another firm. It was shown that the American company pasted a label over the Prest-O-Lite trade-mark when selling the tank to make known the fact that Prest-O-Lite gas was not being sold.

Justice Spiegelberg's opinion called attention to the fact that Section 367 of the business law, under which the Prest-O-Lite company believed its trade-mark was protected, was revised in 1909, so that it no longer referred to products other than soda, mineral waters, etc. It was provided in the new trade-mark regulations that manufacturers of products not covered in the revised law must file new papers covering their trade-marks. The Prest-O-Lite company filed an application for registration of its trade-mark and trade name under the new law during last November. The Indianapolis company has other suits of a similar nature pending in the New York Municipal Court.

WORKING NIGHT AND DAY

THE Racine Foundry Company, of Racine, Wis., has added a new building to its plant which will permit the firm to count upon a production of eleven tons of cylinder castings per day. The company is now working night and day to fill orders for motorcycle cylinders, and for the time being it is compelled to refuse new business in order that present customers may have their wants filled.

A DIRECT factory branch has been opened in Winnipeg, Man., by the Fisk Rubber Company, of New York City. This is one of the first tire establishments of the kind in Canada to be operated directly by the manufacturing company.

A FORMIDABLE array of Excelsior machines appears in the accompanying illustration, which shows the store front of the Central Cycle & Supply Company, 135 North Market street, Wichita, Kan. This firm makes the most of all available publicity space.

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BIG HARLEY-DAVIDSON EXTENSION

MILWAUKEE, Wis.—Negotiations for obtaining what is known in Milwaukee as the Clinton street factory of the Pawling & Harnischfeger Company have been completed by the Harley-Davidson Motor Company, and in keeping with the speedy and systematic handling of all the undertakings of the latter firm, simultaneous arrangements have been made for the installation of machinery. The building has a frontage of 91 feet on Clinton street and 100 feet on Oregon street, and is a modern factory structure, admirably suited to meet the demands of the Harley-Davidson Company. There are three stories and a basement 11 feet deep.

Much of the floor space in this new acquisition, designated by the company as Factory No. 7, will be devoted to the Harley-Davidson automatic screw machine department, and some of the succeeding operations, performed with hand screw machines, will also be handled in this building. In addition the new factory will accommodate departments for the earlier operations on cylinders, flywheels and many drop forging parts.

The acquirement of the new factory brings the increase in floor space since September 1 last up to 143,600 square feet. It will be noted that this is on a basis of 28,700 square feet a month. No other industry in Milwaukee can point to similar growth, and as might be expected it is a source of considerable satisfaction to the manufacturers of the Harley-Davidson line.

BRANDT IN NEW ROLE

J. W. BRANDT, when not selling saddles, amuses himself by acting as a detective. On Tuesday, January 21, a lad walked into the office of the Troxel Manufacturing Company. A few feet from the door is a coat rack, on which hung a young lady's sweater coat. The lad deftly extracted a pocketbook from a pocket of the sweater. The act was noticed by a stenographer, who immediately called to Brandt's attention what was going on, and he gave chase and caught the thief after a run of three blocks. Although Mr. Brandt was somewhat out of breath, he claims the result was well worth the exercise.

NEW DEPARTURE ACTIVITY

ANNOUNCEMENT is made that the rapidly increasing business of the New Departure Manufacturing Company, of Bristol, Conn., will make it necessary for the firm to occupy the recently-purchased plant of the Whitlock Coil Pipe Company, at Elmwood, Conn., with all possible dispatch. It was believed some time ago that the newly-acquired factory would not have to be used for a month or two, but with the home plant at Bristol working to capacity, it is imperative that the additional space be taken advantage of at once.

SAMPSON REPAIR PLUG

A PRODUCT featured by Brown Brothers, Ltd., of London, at the recent Olympia show was their new Sampson outer cover repair plug, made for motorcycle and cyclecar tires. This plug is intended to repair small cuts or bursts. It can be used with or without solution, and as it grips the edges of the cut, it insures a permanent repair. The most important feature of the patent is the threaded wire which is used for tightening the cap, which when properly fixed will never come off. The threaded wire is removed by notching at each side with a file and snapping off.

NOT ON THE PROGRAM

ONE of the unprogrammed entertainment features toward the close of the Chicago show was the dancing of the three children of John L. Donovan, the Beckley-Ralston "live wire." The Donovan youngsters, Helena, Melvin and LeRoy, ranging from four to eight years, made the most of every lively air furnished by the band, and their surprising versatility and confidence scored a big hit and attracted a crowd of spectators whenever they saw fit to present their dancing specialty.

H. A. Fitch, of Cutler, Fla., 61 Years Old, Who Rides a Pope Single Almost Daily.

GOODYEAR SALES FOR 1912

AT the banquet given by the Goodyear Tire & Rubber Company, in Chicago, during show week, President F. A. Seiberling stated that Goodyear sales for 1912 approximated $25,000,000, thus nearly doubling the value of the output for the preceding year.

BALTIMORE SHOW

BALTIMORE, MD., Feb. 18.—The biggest motorcycle show ever held in this city opened in the Fifth Regiment Armory this evening in connection with the exhibition of automobiles. The showing of the motor two-wheelers was made more effective by the grouping of the exhibits in one corner of the building, this being the result of a complaint from the dealers, who were located in different sections of the building last year.

BILL FOR STATE FEE

COLUMBUS, Ohio.—Senator Kaiser has introduced a bill in the Ohio Senate providing for the licensing of motorcycles by the state. It is provided that every motorcycle operated within the state must pay a fee of five dollars. At present motorcycles are registered under municipal authorities.

BERNE NADALL is a recent addition to the staff of the Stewart-Warner Speedometer Corporation, of Chicago.

MORE REGISTERED SHOPS

SO great has been the demand for registered repair shop signs during the last few weeks that the F. A. M. was for a short time unable to make immediate deliveries. A week's addition to the list is reported by Secretary Gibson as follows: Knupp Brothers Garage (S. J. Knupp), Sidney, Ohio; Carter & Turner, Huntington, W. Va.; Markley-Smith Motor Company (C. F. Markley), Manhattan, Kan.; Swint Motor Company (Eugene Swint), Oakharbor, Ohio; Tyler & Brown, Cleveland, Ohio; Ludden & Whitten, Brockton, Mass.; William R. Benedict, Hudson, N. Y.; Noah Smith, San Angelo, Tex.; Ideal Cycle Company (A. M. Henney and C. A. Honsinger), Bellevue, Ohio; Hendricks Brothers (S. L. Heltman), Santa Barbara, Cal.; Morler's Cyclery (Chris Morler), Boise, Idaho; Mt. Pleasant Motorcycle and Bicycle Company (L. W. Sakers), Washington, D. C.; Garfield Park Auto Garage (H. E. Halbert), Chicago, Ill.; Boller Brothers (Albert B. Ernest), Union Hill, N. J.; Steen's Hardware Company (E. J. Steen), Findlay, Ohio; Sanford Clark, Anderson, Ind.; Corvallis Bike Works (Andrew Anderson), Corvallis, Ore., and the Frank D. Johnson Company of Worcester, Mass., received a re-issue.

A LOS ANGELES VETERAN

IN a paragraph which appeared recently in these columns, referring to veteran motorcycle dealers on the Pacific Coast, no mention was made of Lincoln Holland, the well-known Los Angeles distributor, and in fairness to Mr. Holland it should be stated that his name was omitted inadvertently. On January 31 he completed his thirty-first consecutive year in the motorcycle business, and that he is fully entitled to mention as a veteran dealer goes without saying.

NEW MERKEL AGENTS

LATE additions to the list of Flying Merkel agents are reported as follows: H. W. Vandever & Co., Wilmington, Del.; H. S. Brant, Norristown, Pa.; George B. Carter, Petersburg, W. Va.; Bond Bros., Muscatine, Iowa; C. A. Van Doren, Atlantic City, N. J.; Ropson & Brown, Batavia, N. Y.; Theodore Henn, Eldora, Ia.; Connor & McCargel, Hagerstown, Md.; C. H. Merril, Winchendon, Mass.; A. L. Aumack, Vineland, N. J.; S. Savarasske, Brooklyn, N. Y.; Cooper & Co., Ashland, Ohio; J. E. Swank, Bucyrus, Ohio; Milton & Mathews, Mt. Gilead, Ohio; D. M. Hottenstein, Lebanon, Pa.; Beloit Motor Garage, Beloit, Wis.; George Dern & Co., Wausau, Wis.

NEWARK AGENTS

HOLMES WRIGHT, formerly connected with the Bush & MacDougall Company, 312 Halsey street, Newark, N. J., is now manager of the Newark Motorcycle Company, of 47 William street, sole distributor for the Flying Merkel in Newark. The Bush & MacDougall Company handles the Excelsior, Thor, Harley-Davidson, and Henderson machines.

BUSY CANADIAN AGENT

A. McBRIDE, of Toronto, Ont., Pope and Excelsior distributor for Quebec and Ontario, recently made a business trip through western Ontario and established agencies in Hamilton, London, Stratford, Chatham, Berlin and St. Catherine's. McBride also has agencies in Ottawa and Montreal and his contracts with these sub-agents call for 150 machines, mostly of twin chain models.

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BENZOLE EXPERIMENTS

ENGLISH MOTORCYCLISTS REJOICE OVER ANNOUNCEMENT THAT COLLIERIES CAN SUPPLY SUBSTITUTE FOR GASOLINE IN LARGE QUANTITIES, AND THUS OFFSET HIGH FUEL PRICES.

LATE reports are to the effect that experiments under way in South Wales to recover benzole from coal with a view of using the by-product as a fuel substitute for gasoline are meeting with success, and English motorcyclists, as well as other users of motor vehicles abroad, are watching developments keenly. Heretofore the coking ovens were so operated that the gas was simply burnt from the coal and utilized to heat the ovens, but now that the value of the gas as a means of recovering benzole has been demonstrated an entirely new system is being planned. Quite elaborate plants will be needed for the recovery of the benzole, but one large South Wales colliery has already entered upon the work of saving this and other by-products heretofore neglected, and other companies are preparing to follow suit.

Statistics collected in England show that during the last year 48,000,000 gallons of gasoline were used. The coal output annually is about 100,000,000 tons, and on this basis it is figured that enough benzole can be obtained to meet a fuel demand more than twice as large as is recorded at present. Some of the coke ovens with which experiments are now being conducted are producing benzole at the rate of one to one and three-quarters gallons to a ton of coal.

Motorcyclists in England have been forced to consider the substitution of benzole for gasoline because of the soaring prices of the latter, and it is believed that no effort will be made to send the rates higher now that the availability of benzole as a motor fuel has been demonstrated.

POOL DEFI IS ISSUED

STATISTICS are now at hand to prove that during the Chicago show, Shoemaker, of the Graton & Knight sales force, and Whitesell, the well-known Pacific coast distributor, played two match games of pool and broke even, each cueist carrying off a game. Both have reputations in trade circles as pool experts. On another occasion during the show week Sales Manager Kirk, of the Excelsior Motor, Manufacturing & Supply Company, teamed up with Shoemaker and this pair administered a sound drubbing to Whitesell and George Meiser, of Excelsior and Black Hawk fame. Whitesell and Shoemaker teamed against Leo Birkenback, of Columbus, and Mickel, the Omaha dealer, in a match game for a dinner, and the latter duo were downed to the tune of 150 to 62. Whitesell and Shoemaker now issue a challenge to any two-man team in the motorcycle trade for a match game, to be played during the week of the 1914 Chicago show, with a dinner as the stake.

NEW HARTFORD MANAGER

GEORGE S. MASLEN, Indian dealer at Philadelphia, Pa., has reorganized his store at Hartford, Conn., and has placed in charge E. B. Connell, formerly connected with A. G. Schmidt, who conducts the wigwam at Pittsburgh. Mr. Connell succeeds H. S. Lake as manager of the Hartford agency.

WILL HANDLE MOTORCYCLES

TOLEDO, Ohio.—The Maumee Motor Car Company, of Toledo, has been incorporated with a capital stock of $10,000 to deal in motorcycles and cycle accessories among other things. The incorporators are Richard D. Logan, A. J. Gallagher, M. E. Frankenberger, Adolph E. Burlen, and Edward A. Koster.

BOSCH AGENCIES

TWO of the latest agency appointments of the Bosch Magneto Company are The Powell Supply Company, 2119 Farnam street. Omaha, Neb., and The Kansas City Automobile Supply Company, 1504 Grand avenue, Kansas City, Mo.

H. F. McGrew, who lives in the wilds of the West Virginia mountains, carrying his family on a Pope.

NEW OFFICERS NAMED

THE Western Electric Company, as a result of its alliance with the Pittsfield Spark Coil Company, has chosen two new vice-presidents. Gerard Swope, general sales manager, and A. L. Salt, general purchasing agent, were appointed to these newly-created positions at a recent meeting.

NEW BROOKLYN FIRM

THE Yale Motorcycle Company, of Brooklyn, N. Y., has been incorporated with a capital of $1.000 to handle a general line of motorcycles and supplies. The incorporators are Charles Winkel, 1172 Fulton street; Irving M. Levy, 523a Gates avenue, and Eno M. Levy, 518 Quincy street, Brooklyn.

MORE ROOM NEEDED

M. B. DOOLEY, agent for the Yale in Somerville, N. J., reports having sold a number of the 1913 models in Somerset and Hunterdon counties, both of which he controls. Owing to the success he had in selling Yales last season, he has recently opened a new and larger store at 46 Main street.

A NEW firm which will sell and repair motorcycles has been opened in Columbia, S. C., and will be known as the Columbia Motorcycle Garage. The firm has contracted for the Harley-Davidson agency in Richland and adjoining counties.

THOR SALES

VIEWING the Chicago Show from a standpoint of sales it has proven a wonderful success, according to reports from the Aurora Automatic Machinery Company, Aurora, Ill., which firm is now delivering an average of forty machines a day. A. Freed, of San Francisco, who is the largest distributor for the Thor, has placed orders for fifteen carloads of machines, all of which will be shipped to him within the next two months. Other carload orders were received from Cleveland, Columbus, New York City, Brooklyn, Buffalo, Savannah, Jacksonville, Denver and Salt Lake City, thus making actual orders for twenty-four carloads received during the Chicago Show. In addition to this 750 individual orders were received from smaller agents. Originally the Aurora firm had planned an output of 10,000 machines for 1913, but it has now arranged for an additional 5,000, and increased space and facilities are being acquired accordingly.

WHO'S WHO

MUCH interest has been shown by the trade in the "Who's Who" portraits and stories published in MOTORCYCLE ILLUSTRATED. The third of this series was to appear in this number, but an unexpected delay in obtaining some of the required material is responsible for the absence of this interesting feature from this issue. The series will be resumed, however, in the March 6th issue, and continue regularly thereafter.

CARLOAD OF YALES

A. R. HORN, distributor for the Yale in Minneapolis, Minn., has just received a carload of 1913 Yales. This is said to be the first solid carload of motorcycles to be received in Minneapolis.

BILLBOARD PUBLICITY

A METHOD of advertising which has proved eminently successful in the case of Mark J. McCann, of 92 Gorham street, Lowell, Mass., is that of placing bill boards in a conspicuous position along the roads leading to the city. In this way all riders entering the city know just where the Excelsior and Dayton agent is located," says Mr. McCann.

RALPH HINOUSH, a popular Cleveland rider, has accepted a position with Tyler & Brown, manufacturers of sidecars and subagents for the Merkel. Mr. Hinousch will have charge of the repair department.

UHLER BROTHERS have just entered the motorcycle field in Cleveland, where they will be sub-agents for Thor and Excelsior machines. An up-to-date repair shop will be a feature of their establishment.

H. H. HUNTSBERY has joined the sales staff of I. H. Silsby, of Cleveland, who has been selling Merkels at the rate of one a day since the Show.

IRA C. COOMBS, 154 West Street, Worcester, has been appointed local commissioner by the Massachusetts State Commissioner.

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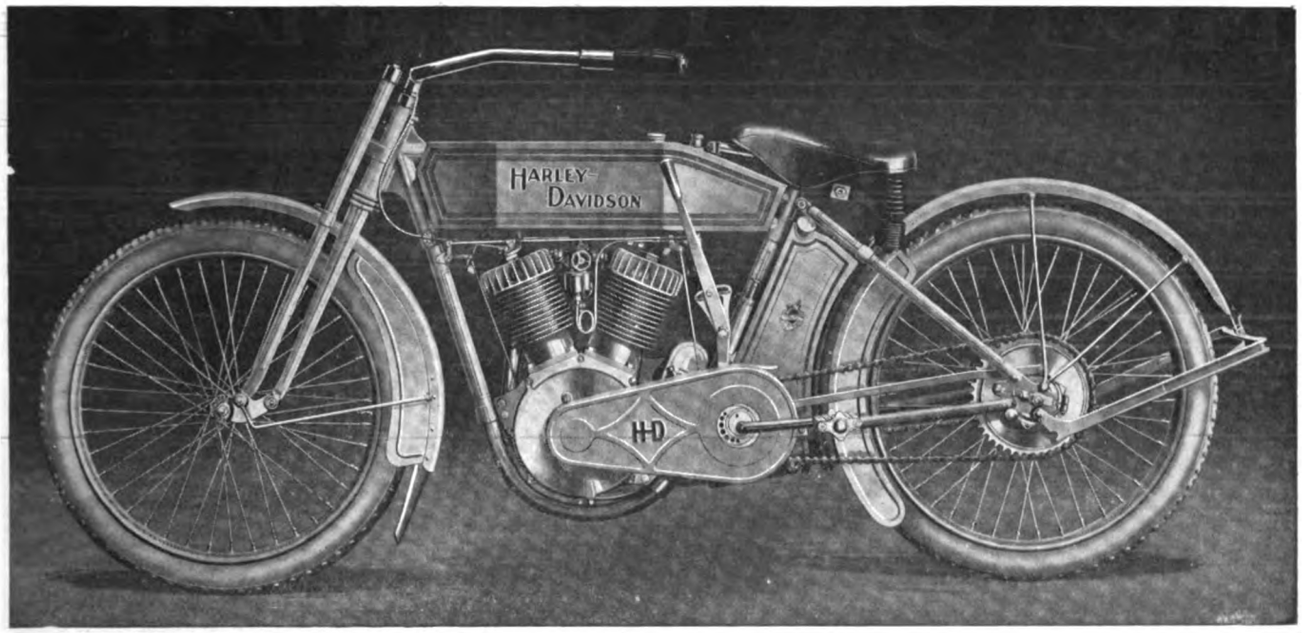

This is Real Service

EDWARD BAUMGARTNER, contracting foreman for the Union Hardware Company of Marietta, Ohio, has ridden his 1911 Harley-Davidson 20,000 miles with a total repair expense of ten cents.

An interesting feature of this record is the fact that Mr. Baumgartner weighs 210 pounds.

Every manufacturer will tell you that his machine will stand up better than the rest, but——can any other prove it?

The Harley-Davidson costs more but is worth it.

Harley-Davidson Motor Company

Producers of High-Grade Motorcycles for Eleven Years

368 C Street **Milwaukee, Wisconsin**

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MOTORCYCLE MART

One time, three cents a word; twice, two cents a word each insertion. Agents' cards, five cents per word; two or more times, three cents per word each insertion. No advertisement for less than fifty cents.

FOR SALE OR EXCHANGE

FOR SALE.—Indian twin; magneto 5 h. p., with free engine clutch; machine in good condition; tires in fine shape; price $100. H. A. Young, Utica, Ohio.

SEVEN-PASSENGER HAYNES car, fully equipped 1909 model; will exchange for 1912 Ford or similar car. 1507 Bushwick Ave., Brooklyn.

FOR SALE.—Harley-Davidson 4 h. p. single magneto, 1911 model, good running order; 2¼-in. rear tire (new), speedometer and whistle; $150. R. J. Mueller, Rhinelander, Wis.

FOR SALE.—Indian twin, late 1912 two speed; fine condition, fully guaranteed. $220. G. Leslie Dougherty, Jerseyville, Ill.

FOR SALE.—1912 M. M. Battery 4 H; good as new; enamel in fine shape, $90. Russell B. Watters, Damascus, Ohio.

MOTORCYCLE Dealers and Riders, Attention—1913 Peerless luggage carrier cushions for Indians, Merkels and others. Newest and best. Get prices from dealers or direct. Johnson, Cushion Mfg'r, Detroit, Mich.

FOR SALE.—1912 8 H. M. M. twin, like new; run less than 500 miles. Fully equipped with clutch; horn, luggage carrier, tools and kit. Must sell. First check of $210 takes it. Charles Anthony, East Berlin, Pa.

DO NOT OVERLOOK to get our bargain list. Speedometers, $6.50 up; Prest-O-Lite, $8; side cars, $35 up; pennant holders, 20c., postpaid; tandems with seat, $5. Many other bargains. Investigate. Motorcycle Exchange, Schenectady, N. Y.

FOR SALE.—1912 Bradley; good condition; exceptionally fast; cheap; also ported cylinder racing car; carbureter, piston for Flanders "4." $15. Frank Gravatt, 2203 Fairmont, Atlantic City, N. J.

FOR SALE.—Indian 7 H.P. (1912), new rear tire; exhaust whistle; excellent condition; price, $150; a bargain. W. P. Woodward, Hudson, N. Y.

WILL EXCHANGE 3 h.p. gasoline engine and D. C. generator 20 light capacity 110 volt, value $150, for good motorcycle. Albert Briggs, Rhinelander, Wis.

MODEL 8 E. 7-8 h. p. Twin Harley-Davidson; good as new; only run 1,500 miles; tires good; tandem, lamp, horn and Presto tank; all for $190. Address Grover Browning, 212 Scoby St., Greensburg, Ind.

FOR SALE—Generator and 1,400-candle power lamp; value, $13. Will send by parcel post for $9. Both new. Frank Smith, Box 167, Rose, N. Y.

MEDICAL books, manikins, chemical apparatus, chemicals, drugs, chemical cabinet, 1 set of books, Electric Engineering, nearly all new, total, $350; for cash or motorcycle, late model. Must be in fine condition; full details exchanged. J. J. Dineen, 156 Margin st., Lawrence, Mass.

FOR SALE.—1911 Model Excelsior Single, first-class condition; Prest-O-Lite tank and lamp and horn. Price, $125. W. R. Stanchfield, Fairfield Centre, Me.

FOR SALE.—1912 4 h. p. Indian; first-class condition; 2¼-in. rear tire; Ero tandem and luggage attachment; Yale shock absorber; price complete, $165. H. Lystul, Glendale, Ore.

FOR SALE.—1912 Flying Merkel 6 H. twin chain drive; guaranteed. $185. Write Alfred Bauer, Perry, N. Y.

SNAP.—Brand new Monarch 5; cost $225; guaranteed; will sell for $175. Ship C. O. D. Robert Trowbridge, Delta, Ohio.

CYCLECAR parts, nine horse Anzani motor, 2-speed gear, front and rear axles, wheels and springs. Bargain. Mack, 571 45th st., Brooklyn.

WILL TRADE 1913 motorcycle for side car and cash. Will sacrifice 1913 motorcycle ordered special and not taken. Melrose Motorcycle Agency, 111 First st., Melrose, Mass.

FOR SALE.—Bargain, $100. Pope 1912 Model 3, ½ H. P., magneto ignition; perfect running order. R. Ward, 212 Broadway, Camden, N. J.

FOR SALE.—1912 Excelsior 4 h., used 200 miles; chain drive, Bosch magneto, Eclipse clutch, horn, self-lighting lamp, luggage carrier with foot rests. Write if you want a bargain, $175 cash. Herbert Hoefer, Higginsville, Mo.; R. I. Box 6.

FOR SALE.—One new side car, complete; fits any machine, $25. H. Kaskel, Spencerville, Ohio.

HELP AND SITUATIONS WANTED

MECHANICALLY inclined, ambitious young man wants position in motorcycle repair shop; some experience. E. M. Van Name, 336 51st st., Brooklyn, N. Y.

WANTED.—Good all-round bicycle and motorcycle repair man; steady job. G. W. Campbell & Co., Waterloo, Iowa.

MISCELLANEOUS

MANAGER WANTED.—Dallas, Texas, Motordrome—new track—finest in America. Fine position for first-class, hustling, experienced man. Good pay to man who gets results. Write salary and all particulars to Dallas Motordrome Amusement Co., 804 Rialto Bldg., St. Louis, Mo.

WANTED.—N. S. U. Two Speed Gear; cheap. Ed. Andres, Madison, Ind.

GET OUR COMPLETE transfer outfit for monograming automobiles and motorcycles. All owners want these monograms because they are new, durable and artistic. For full particulars write. Motorists Accessories Co., Ashland, Ohio.

PATENTS

promptly obtained OR NO FEE. Trade-Marks, Caveats, Copyrights and Labels registered. TWENTY YEARS' PRACTICE. Highest references. Send model, sketch or photo. for free report on patentability. All business confidential. HAND-BOOK FREE. Explains everything. Tells How to Obtain and Sell Patents, What Inventions Will Pay, How to Get a Partner, explains best mechanical movements, and contains 300 other subjects of importance to inventors. *Address,*

H. B. WILLSON & CO. Patent Attorneys
Box 500 Willson Bldg. WASHINGTON, D. C.

$25.00 REWARD for 1911 red Indian twin 5 h.p. Motor No. 20C087. May be recognized by marks on right side of oil tank where a monogram had been glued and then removed. Pipe to mechanical oiler needs soldering where joined to tank. A. T. M., c/o Motorcycle Illustrated, 51 Chambers st., New York.

DEALER'S CARDS, Etc.

GUS ROTHOLZ, agent for Indian and Excelsior. 1491 Fifth avenue, between 119th and 120th streets, New York. Telephone, Harlem, 2337.

RIVERSIDE MOTORCYCLE GARAGE—Distributors for Reading-Standard and agents for Eagle motorcycles, simplex side cars and F. N. combination tandem attachment and luggage carrier, complete, $15. 1913 models in stock; also a large number of used machines at bargain prices. A complete machine shop; all repairs and supplies. 533 West 110th St., near Broadway. Tel. 5615 Morningside.

"BOB" BRAZENOR, specialist on repairs, Brooklyn agent for Harley-Davidson and Excelsior motorcycles. Parts and supplies for all makes in stock. 1507 Bushwick Ave., Brooklyn, N. Y.

B. & C. TWO-SPEED and free engine gears for chain-driven motorcycles of the counter-shaft type. Bushnell & Cannon, 1268 East 80th street, Cleveland, Ohio.

THE LATEST AND BEST guaranteed Motorcycle Supplies at lowest prices will be shipped same day your order is received. You get satisfaction in every package. Write for largest Motorcycle Supply Catalog ever printed. Motorcycle Equipment Co., Hammondsport, N. Y.

T. J. SIXSMITH, expert repairing; agent for R.-S., Indian and Excelsior motorcycles. 206 W. 100th street, New York.

M.-M. AND EAGLE motorcycles. Two big twins—$240 and $275. Two big singles—$200 and $235. The largest and most powerful line in America. Full line of parts and accessories at George P. Jenkins, Eastern Distributor, 256 West Fifty-fifth street, New York City.

THE NEW YORK Motorcycle Co., 782 8th avenue, New York City. Distributors of Thor motorcycles and parts. We have the only supply of parts in America for F.-N. and Royal Pioneer motorcycles. We also carry a big stock of parts for Indian, Curtiss, M.-M., N. S. U. and R.-S. We have at all times over 50 used machines at all prices We repair broken cylinders, pistons and crank cases. We have the largest and best equipped motorcycle garage in the country and we do reliable repairing.

HAVE YOUR motorcycle overhauled now; expert work, moderate charges; ten years' experience in motorcycle repair work. Parts for N. S. U., Indian and Peugeot. Metropolitan Motorcycle Repair Co., 820 Amsterdam avenue, cor. 75th street, New York.

T. S. CHIPLEY—The Motorcycle Man, Greenwood, S. C. Distributor of Harley-Davidson motorcycles and parts. We have the best equipped repair shop in the South. All parts for Harleys in stock at factory prices. Terms, cash with order. When in need of parts save time and order from us. Also have tires, belts, oils, etc. Prompt shipments guaranteed. T. S. Chipley, Greenwood, S. C.

AGENTS WANTED

Motorcycle and bicycle agencies can make big money during dull season selling our gasoline lighting systems for stores, houses, streets, etc. Write for free catalogue.
DOUD LIGHTING CO.,
137 No. Sangamon street, Chicago, Ill.

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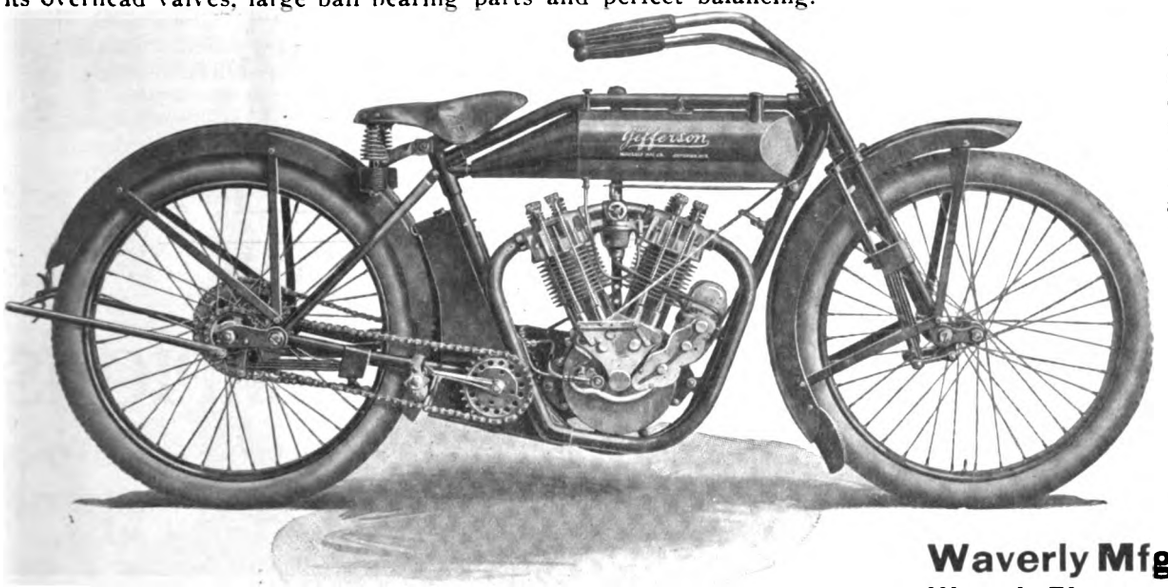
THE 1913 JEFFERSON HAS EVERYTHING

Speed—Power—Comfort—Durability

The JEFFERSON has these features in abundance. Its speed was proven beyond a doubt when, under the name of P. E. M., it won six races against twins, besides winning 37 out of 47 races which it entered. Power is assured by its overhead valves, large ball bearing parts and perfect balancing.



Aside from the automobile leaf springs, which not only make comfort a striking feature in the JEFFERSON, but add immeasurably to the strength of the JEFFERSON'S frame, the construction of the JEFFERSON — re-enforced frame parts, makes it proof against wear.

DEALERS—Our proposition is a good one. Write us about it.

Waverly Mfg. Company
Waverly Place Jefferson, Wis.

Standard

In Name and Quality

Never has there been a truer saying than the time-worn old adage, "It's the little things that count." And it is the degree of attention paid to these "little things," that determines oftimes the success or failure of a machine to "get across."

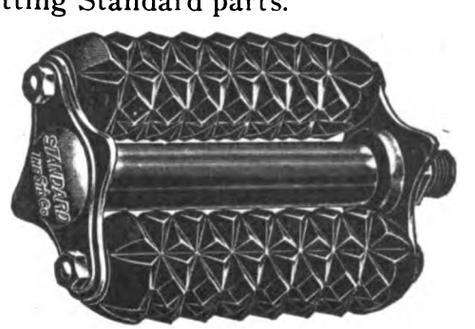
Wise manufacturers are equipping with Diamond "E" Spokes and Standard Pedals because they are quality goods—because they reduce the number of repair shop trips for the rider—because farsighted manufacturers realize that a motorcycle's weakest points are its strongest—and it is that infinite attention to detail which bespeaks perfection.

The dealer who looks ahead will stock heavily with Standard Pedals and Diamond "E" Spokes and Nipples. The motorcycles that are not so equipped will inevitably come to his shop for replacements and it is up to him to sustain his reputation for high-grade repair work by fitting Standard parts.

Everyone knows the superiority of Standard No. 3 Pedals, their deep, soft rubber cushions, the interchangeability of the rubbers, and the thousand and one other good features that are not found in other pedals. The feet cannot slip no matter how rough the going. And the perfection of Diamond "E" Spokes is proverbial.

The Standard Company

Torrington - Conn.



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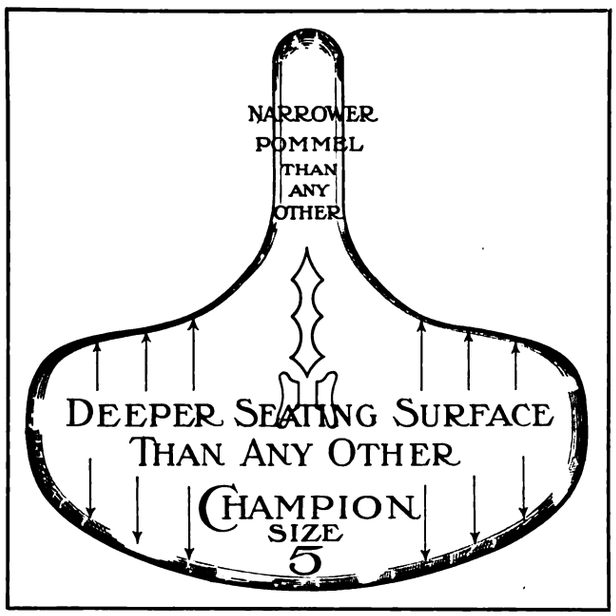
PERSONS CHAMPION



The Illustrations Tell The Story

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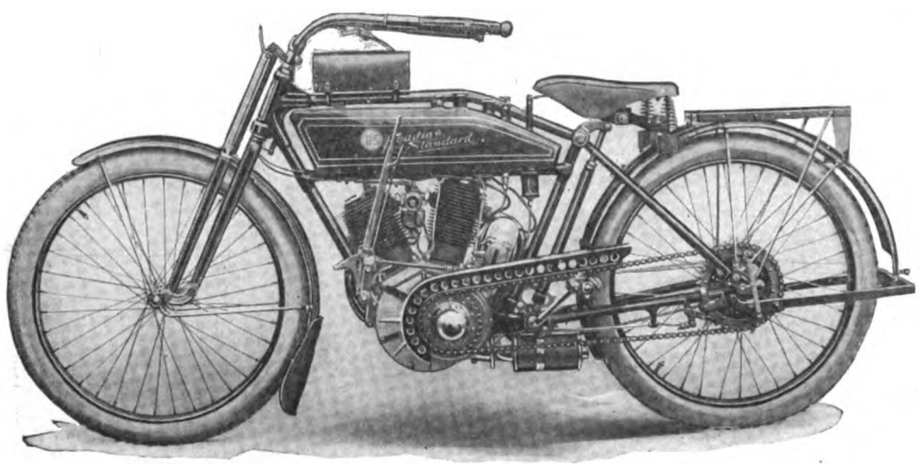
THE PERSONS MANUFACTURING COMPANY

WORCESTER MASS.

THE OLDEST MAKERS OF THE NEWEST MOTOR SEATS IN AMERICA



We can deliver your R-S at once

Riders, do not underestimate the importance of this announcement. It **means** something. This is no idle statement. Go to your dealer and ask him when you can get an R-S. You'll be satisfied with his answer.

Every rider in this country has a profound respect for the R-S. It is universally recognized as being a machine that "knows its business." To think of the R-S is to think of quality.

At the shows—visiting engineers, competent to judge, offered their opinion—that the R-S embodied those common sense features making for strength where it is needed most—absolute **reliability** and **comfort.**

Models for 1913 are: Twin, Chain Drive, $275; Tourist, Belt or Chain, $225; Service, Belt Only, $200. Get our handsome art catalog.

Reading-Standard Company

340 Water Street Reading, Pa.

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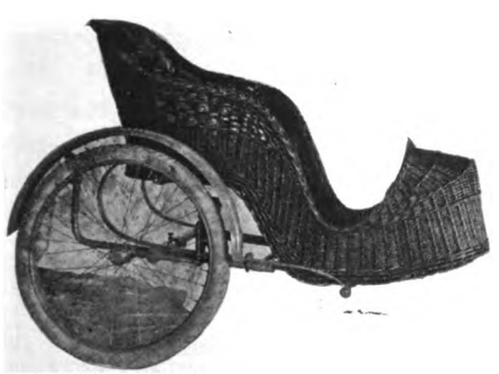
The Baxter
THE
Transcontinental Sidecar

"The most convincing proof of quality is service." What stronger proof would one desire of the Baxter Sidecar's supremacy than its latest performance—its recent transcontinental trip just completed, in which trip Messrs. Fargo and Crawford—Henderson and Baxter Sidecar—encountered every kind of road, and sometimes no roads at all. Through mud motor deep, through streams from which bridges had been washed away, through boulder-strewn mountains, "goat-paths," through desert sands, the Baxter Sidecar nobly stood the test. And why? Because it was built to endure.



The Most Powerful Frame In the World

Its chassis of seamless steel tubing, double truss frame construction and rigid mudguard gives it enormous stability. The hub spindle, the most vulnerable point on a sidecar, is turned from solid Bessemer steel.

An Indestructible Body

Made of Asiatic Reed, Indian Rattan or willow, the Baxter Sidecar Body is strongly reenforced with steel. Extraordinary precautions have been taken to prevent the deep leather cushions from fraying or the willow from weaving.

The Marvellous Baxter Spring Wheel

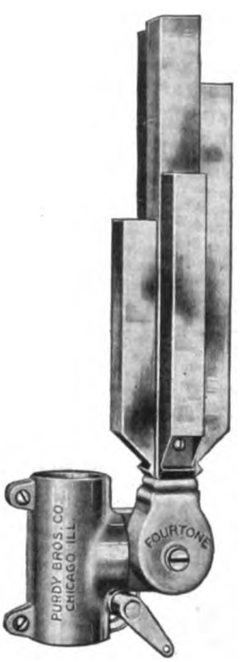
This special feature has done much to bring for the Baxter Sidecar that popularity which it so richly deserves. But this feature alone would not assure a sidecar's continued popularity were it not reenforced by other features of like merit.
The Baxter is an all-around perfect sidecar, built by a man who has done nothing but make sidecars for the past ten years.

GET OUR CATALOG OF PLEASURE AND COMMERCIAL SIDECARS

THE BAXTER SIDECAR CO.
119 BROADWAY, CAMBRIDGE, MASS.

"Purdy Fourtone" WHISTLES

The latest creation in the line of motorcycle alarms—the highest type of a melodious warning. Equipped with an entirely new style "Purdy" valve, which operates similar to a trap door and when blown forces the full exhaust through the chimes, emitting a musical organ-like chord that can be heard far in advance.



The tone portion of the whistle works on a pivot with the lower part and can be adjusted to any angle. When tightened it is locked into position and positively will not jar loose.

Weighs less than two pounds—principally constructed of aluminum composition.

Pipes are securely fastened and cannot work loose—large openings throughout that will not clog or choke.

Price complete with handle bar control $7.50.

When ordering state make, horse power, and year model of machine.

PURDY BROTHERS
937 W. Garfield Blvd. Chicago

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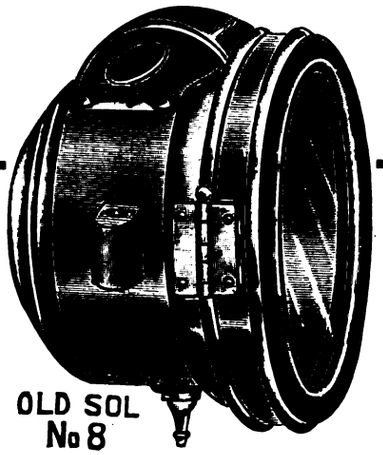


Have you confidence in your lighting equipment? Is it everything it should be? If it isn't, then study the OLD SOL line, because in this lamp family is the lamp for you. From OLD SOL No. 8, the largest and positively the most powerful motorcycle light manufactured, to OLD SOL No. 20, every requirement of the rider has been carefully considered and successfully met.

OLD SOL No. 8 is the "Big Feller." It's **the** lamp for the rider who wants a surplus of light for the same reason that he wants two cylinders on his machine—just for the satisfaction of knowing the surplus is **there,** ready for any emergency. It has 1,500 candlepower.

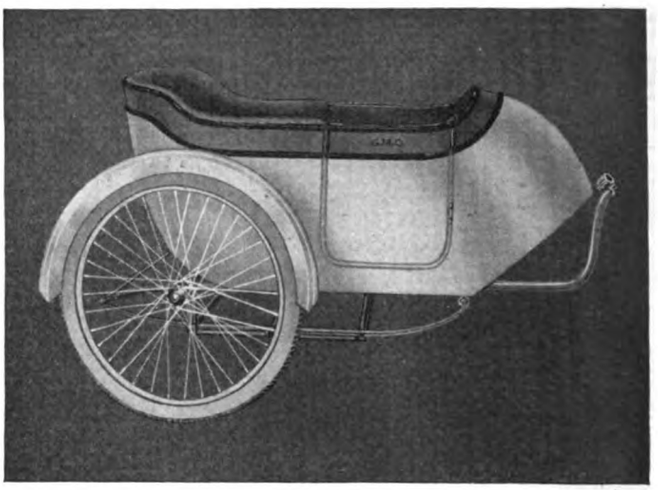
And then there's OLD SOL No. 17, the "Big Brudder," a little less powerful than OLD SOL No. 8, but still much more powerful than any other make of motorcycle lamp.

Then we make OLD SOL Nos. 1 and 2, husky "middleweights" that scatter a light of 600 candlepower strength and differ only in bracket arrangement.

Then we make Models 3 and 4, self-contained lamps, and we make a crackerjack of an electric tail lamp and we make a dandy sidecar lamp and—oh well! The best thing for YOU to do, Mr. Rider, is to get our catalog and learn what a truly wonderful and comprehensive line of **good** lamps we make. G'wan now! Sit right down to it. It's a cinch to write a postal card. If you haven't a postal card handy, just send one of the kids out for one. You'll thank your stars you did it! You'll be considerably en**LIGHT**ened.

HAWTHORNE MFG. CO.

37, Spruce Street BRIDGEPORT, CONN.



AUTOCAR MODEL—ALUMINUM BODY.

DEALERS!!

Do you realize the advantage of THIS COMBINATION??

No dealer should be without a sidecar to properly demonstrate his machines to any class of prospective buyers.

We use the same chassis on both the Autocar and Delivery Van Models.

You need both to demonstrate properly. We are prepared to make you a

SPECIAL COMBINATION PRICE

on an Autocar Model with an extra Van-Body, Platform and Springs.

All that is then necessary is to attach the chassis to the motorcycle and by the use of eight small bolts, the Springs and Body of either the Autocar or Delivery Van can be attached.

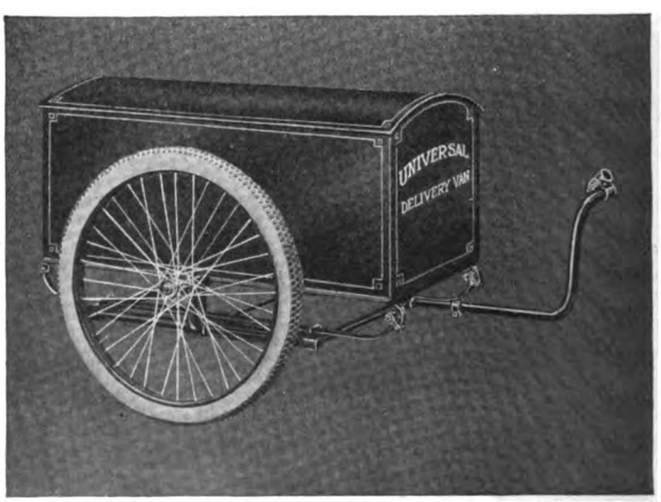
Write us for complete information and special price to dealers on this combination.

Universal Sidecars

are built for service and durability.
We make all styles—wicker or metal bodies.

GREYHOUND MOTOR CO.

1440 Niagara St. Buffalo, N. Y.



COMMERCIAL CAR.

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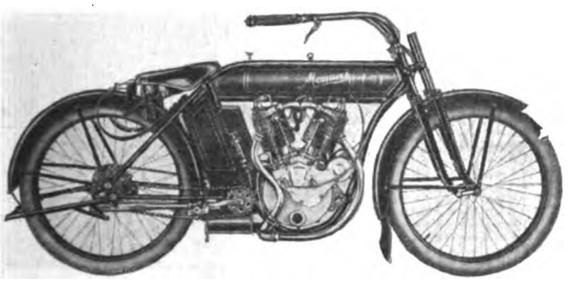


The Monarch
Made Good at the Shows

At the recent shows, the MONARCH certainly showed up as the best ever, backing all of our claims. Orders booked at both shows go to prove this. Everybody that saw the MONARCH agreed with us that they were leaders.

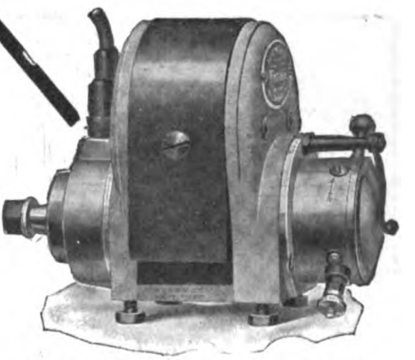
Design, Quality, Finish and Construction make the MONARCH far in advance of them all. And when we say that we have the best Motorcycle built, we are telling the truth.

Our leaf spring saddle suspension was adjudged by all as the most perfect shock-absorbing device ever brought out, and on account of the incessant demand we have built a tandem, on the same idea, which was the sensation of the Chicago Show.

Get Our Big Art Catalog
It's Free

Ives Motorcycle Corp'n
200 JOHN STREET
Owego, Tioga Co., N. Y.

This is the new 1913 Model



HERZ MAGNETO

Dust-proof Moisture-proof
Highly Efficient

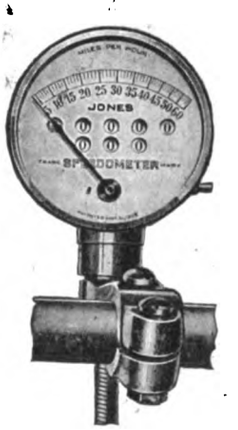
During the entire first week of the New York Automobile Show, a HERZ MOTORCYCLE MAGNETO ran **completely submerged in water.** The same unprecedented demonstration was repeated at both the Chicago Shows.

In breaking all world's records from 1 to 100 miles, at Playa del Ray, Dec. 30, 1912, and Jan. 7, 1913, Lee Humiston used a new model HERZ MAGNETO on his Excelsior machine.

The New HERZ PLUGS are also provided with insulated terminals. The combination of these Plugs with Herz Magneto forms the ideal ignition system.

HERZ & CO.
295 Lafayette Street
NEW YORK

Near, At, or Over the Speed Limit



YOUR speed is measured not by your speedometer, but by the speedometers of the motorcycle policemen—and their instruments are Jones instruments.

The Jones Speedometer

is permanently accurate. It is based on *centrifugal force* which has a definite value for every speed. Centrifugal force always tells the speed truth.

The Jones Speedometer
Broadway at 76th Street New York

Plants: { Bush Terminal, Brooklyn, N. Y.
{ New Rochelle, N. Y.

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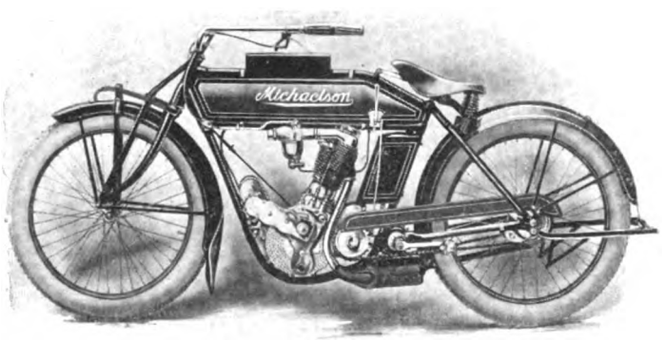
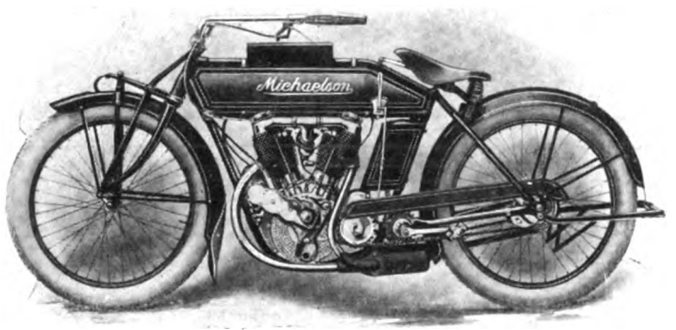
Michaelson Motorcycles Tri Cars



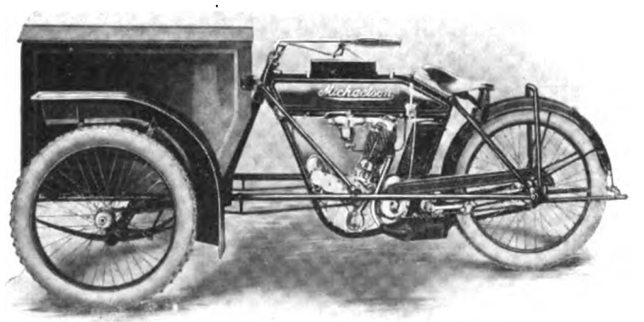
5-6 Horse Power.

These machines have made a tremendous hit. Great power, two-speed transmission, comfortable riding, beautiful design. Built by men long experienced in the manufacture of two-speed motorcycles.



10-13 Horse Power.

Improved Two-Speed Gear, extra heavy.
Enclosed Clutch running in oil.
Clutch Control Lever on Handlebar.
Mechanical Oiler; also Hand Pump.
Enclosed Valve Levers.
Extra Heavy Roller Chain, ½" x ¾" Pitch.
Chain Guard, full length.
Cushion Seat Post.
8" Tires, front and rear.
Large Exhaust Pipes. Silent Muffler.



AGENTS—We have the line of machines that you should handle. We have the **Factory**, the **Men** and **Improved Methods** which will enable us to put out only the highest standard of workmanship. We are prepared to make **Early Delivery**. Better get our catalog and agency proposition at once.

THE MICHAELSON MOTOR CO.

526 SO. FIFTH ST., MINNEAPOLIS, MINN.

You Are Entitled To A Guarantee With Your Motorcycle Belt

If a motorcycle belt is guaranteed, the manufacturer takes all the chances.

If it is not guaranteed, you take them.

Let the manufacturer take the chances. Buy the only guaranteed belt—a Wetpruf.

We know that Wetpruf belts will not stretch, that they are water-proof and weather-proof, and that they will not crack or open at the laps or plies.

Therefore we guarantee them and we take all the risk. You're entitled to a guarantee, and you get it with a Wetpruf.

Your dealer can supply you with a Wetpruf belt. Additional Wetpruf facts if you will write us.

HIDE, LEATHER & BELTING CO.

227 S. MERIDIAN ST., INDIANAPOLIS, IND.

H. T. Roberts, Selling Agt., Railway Exchange Bldg., Chicago

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LESS VALVE GRINDING

Fit your engines with this valve and save the rider the necessity of frequent re-grinding.

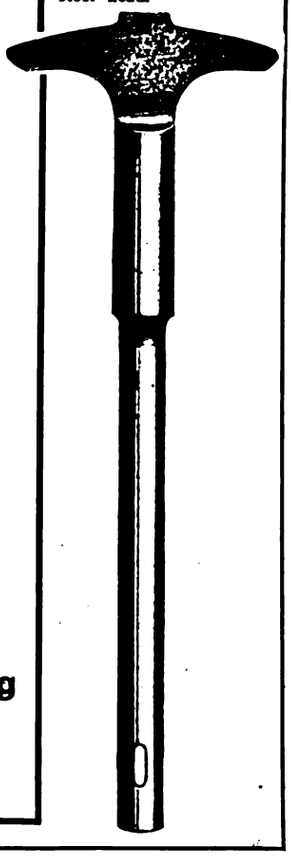
The cast iron seat does not pit even after long service. It is welded to a nickel steel head which will not warp or break.

The valves close tightly and your motor gives full power through the entire season's service.

Insure yourself now against complaints from valve trouble. Send your blue prints for our prices.

The Electric Welding Products Co.
CLEVELAND, OHIO

Cross Section showing cast iron seat welded to steel head.

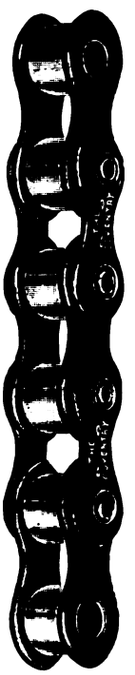


"The Coventry" Chain

"The Motor's True Mate"

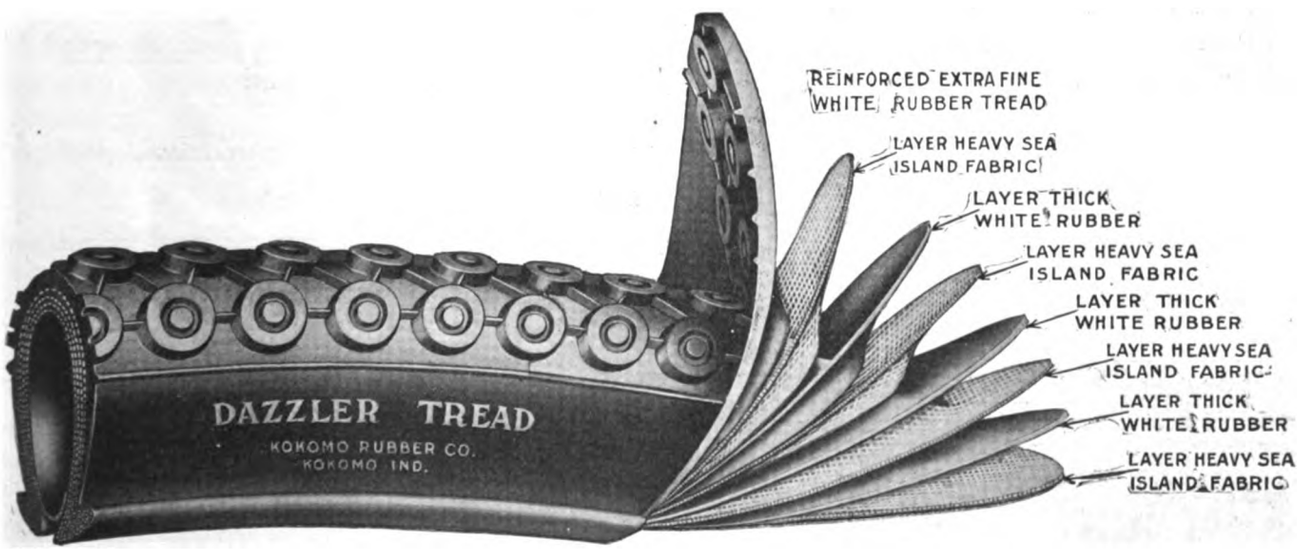
There is only one reason why "The Coventry" chains are not used on every chain-driven machine in the United States. It is because not every rider, dealer, jobber and manufacturer has yet learned how wonderfully efficient, how superbly strong, silent and supple a transmission "The Coventry" chain really is.

But our extensive publicity campaign is steadily adding more and more to the army



of "The Coventry" chain users. The enthusiasm of a "Coventry" chain user is catching. Ask him. His opinion is not biased. He will tell you the truth. He has no reason for doing otherwise. And then go to your dealer and get a set. Or if he don't carry them, order from us direct, sending his name and address. We'll send you one of our Tiger Pennants for your trouble. What do you say?

Saroo Engineering Co.
112 BROAD ST., N. Y.



The Dazzler—A Real Non-Skid Tread

Dazzling indeed in its aggregation of service insuring features is this new arrival in the Kokomo group.

Note the distinctive studs. Your eyes give you the most convincing testimony as to their efficiency as skid and side-slip preventatives. Your common sense tells you that it would be impossible to find a more effective tread. And give your close attention to the seven alternating layers of thick white rubber and heavy Sea Island cotton. Can you find anywhere a more efficient, business-like tire? (Chorus) NO!

Send for our catalog. It tells the whole story.

KOKOMO RUBBER COMPANY, KOKOMO, IND.

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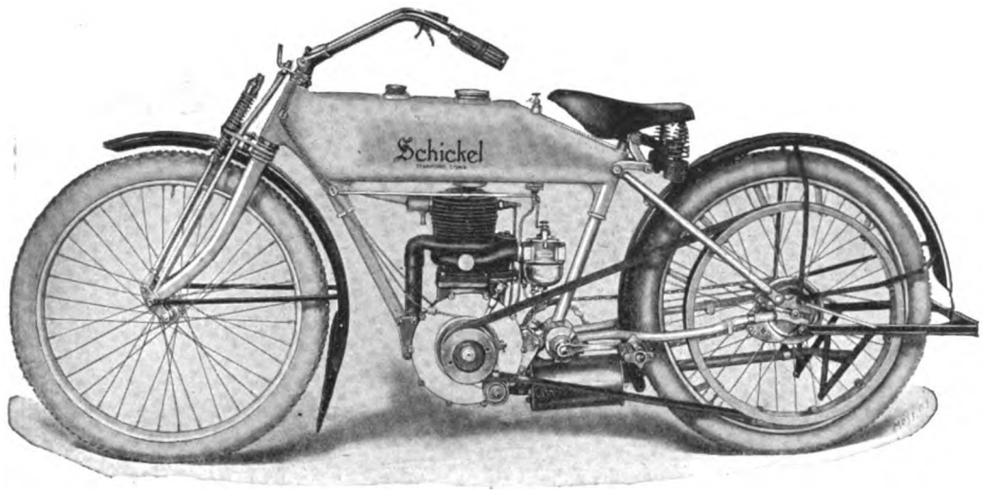


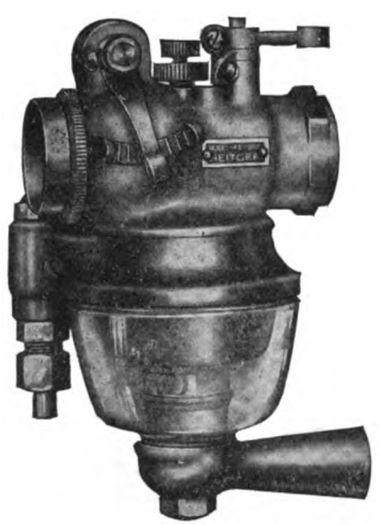
THE Schickel

The distinctive motorcycle for the discriminating buyer, who demands something different and better than the ordinary kind

THE SCHICKEL MOTOR CO.
59 GARDEN STREET STAMFORD, CONN.

HEITGER MODEL K—1913

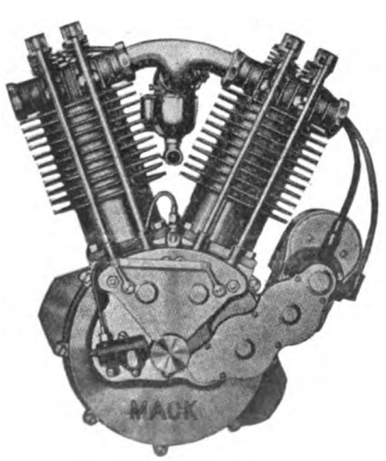
Made in ¾" and 1" pipe threads, and special threads for Spacke, Pope, H-D, Excelsior, Merkel, and Emblem, same list, ¾", $10.00; 1", $10.50. Where special fittings are needed, extra price. Has new air valve, no friction, or stems to wear, causing air leakage in low; air adjusted instantly from saddle, for starting, etc. Needs no priming in coldest weather. Furnished with glass or metal bowls, same price, the two being interchangeable.



HALF SIZE

Has new gasoline feed, two jets, one for low, one for high, with separate adjustments, giving minimum and maximum speeds. Owing to air valve action, etc., gives greatest possible speed to motor on minimum gasoline consumption. Light in weight, castings of aluminum, polished nickel plate.

Heitger Carbureter Co.
1129 Beecher St., INDIANAPOLIS, IND.



Investigate—Then You Will Appreciate Mack Superiority

Investigate—compare—critically examine every detail of the MACK MOTOR. Grasp the manifold advantages offered in this new conqueror of the road and track. Note the special alloy drop forged steel motor, of which material the most powerful automobile motors are constructed.

MODELS { 4 and 5 H. P. Single—Interchangeable / 7 and 9 H. P. Twin—Interchangeable

Realize the unexampled convenience of the micrometrically measured parts, which make them absolutely interchangeable. Examine the MACK'S crank-shaft. Imported annular ball-bearings support it. Take a look at the oil-tight aluminum crank-case and note the high nickel finish on the cylinder and small parts.

Here is the positive mechanical oil pump. No valves to become dirt clogged—absolutely positive in action.

We are ready to handle 1913 business now. We have perfected our motorcycle motor department. We can give perfect service insofar as prompt deliveries are concerned. Our many years of gas engine experience protect the prospective buyer.

Our catalog is yours if you let us have your name and address.

THE UNIVERSAL MACHINERY COMPANY, 1913 ST. PAUL AVENUE MILWAUKEE, WIS.

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Comfort in a Sidecar Depends on its Springs

MAJESTIC CARS

Have Real Springs—
Not Only Easy Springs

THEY HAVE LUXURIOUS SPRINGS

Made with FOUR LONG, FLEXIBLE LEAVES
of Tough Vanadium Steel, 52 inches Long.

THEY RIDE LIKE FLYERS

Only car built with 4 Leaf Springs. No other absorbers, supplementary springs or other makeshifts needed.

SEND FOR FREE ILLUSTRATED CATALOGUE

THE MAJESTIC MFG. CO.

38 SOUTHBRIDGE STREET - - - - - - - - WORCESTER, MASS.

More Money for You

We save you a quarter for every dollar you spend with us.
Send for our 1913 Catalogue showing the most complete line of guaranteed Accessories.
We save you DOLLARS on Tires.

Motor-Cycle Co-Operative Co.
650 Woodward Ave. Detroit, Mich.

Afford Perfect Traction—
Prevent Slipping and Skidding

Mud, sand, slippery pavements or snow will not spoil your sport if you always carry **Weed Chains.**

Easily carried, as the small bundles they make in their canvas bags take so little room that they could be carried in your pocket, when not in use, without inconvenience.

Order them from your dealer or write Dept. B for particulars

Weed Chain Tire Grip Co., 28 Moore St., New York

WEED ANTI-SKID CHAINS FOR MOTORCYCLES

Patent applied for MODEL A

MUELLER TANDEM ATTACHMENT TO FIT ALL INDIAN MOTOCYCLES

Specially Adapted to New Spring Frame Models

MODEL A attachment is for 1913 spring frame machine and does not interfere with frame action. Attachment is made of steel tubing and drop forgings, well brazed—enameled and nickeled. Large Troxel motorcycle saddle, adjustable handle bars, standard No. 3 pedals. Enameled red to match motorcycle.

L. J. MUELLER 6307-09-11 Woodland Ave. CLEVELAND, O.

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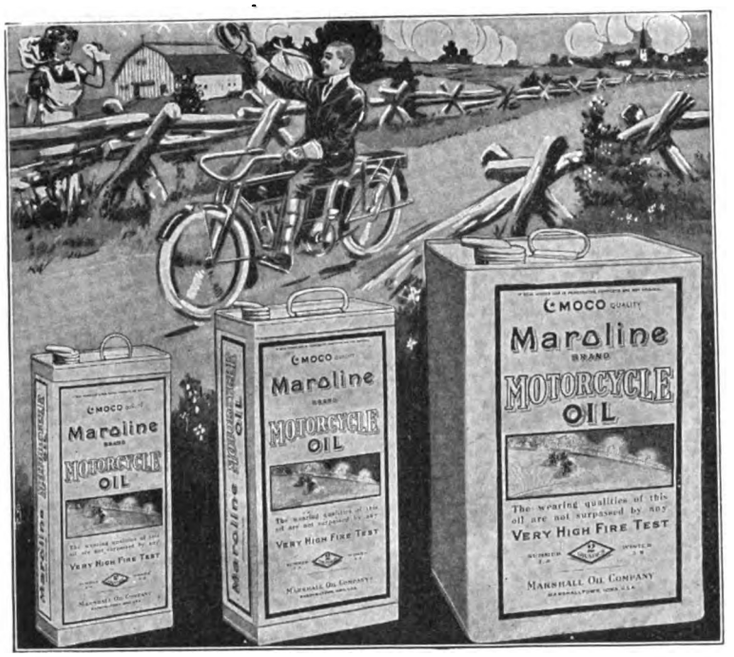

"Keeps Your Motor Young"

Yes, that's what Maroline Motorcycle Oil does by insuring the highest degree of lubrication and maintaining perfect compression. It always renders full power and speed. Carbon proof.

Maroline MOTORCYCLE OIL

Specially manufactured from brightest filtered Pennsylvania Stock, exclusively for the motorcycle.

The Sealed Package

protects motorcyclist and dealer. Ask your supply man for Maroline Oil, put up in handy tins — halves, ones and fives (gallons). Insist on original tins.

If your dealer doesn't carry it write us, giving his name, and we'll see you're supplied.

To Dealers: Price for 50 gallon lots, same in tins as in barrels, thus protecting you against leakage. Cases packed as follows:

Two 5 Gallon Lithographed Tins
Twelve 1 Gallon Lithographed Tins
Twelve 1-2 Gallon Lithographed Tins

Marshall Oil Company
Marshalltown, Iowa, U. S. A.

Keep Your Tire Pressure Up and Your Tire Expense Down

You cannot run your motorcycle with any old pressure in the tires AND EXPECT THE TIRES TO LAST. Tires are built to withstand a definite and specified air pressure. You can only get maximum service when you inflate them to the EXACT air pressure needed, and maintain that specific pressure at all times.

A SCHRADER Universal Tire Pressure Gauge

PRICE ONE DOLLAR

Will tell EXACTLY what pressure you carry in your tires.

Kicking the tire won't tell you and guessing won't do.

Nearly right isn't enough, the pressure must be EXACTLY right.

ASK YOUR TIRE MAKER

FOR SALE BY
Tire Manufacturers, Jobbers, Dealers, Garages, or by

A. Schrader's Son, Inc.
30-32 Rose St. - New York

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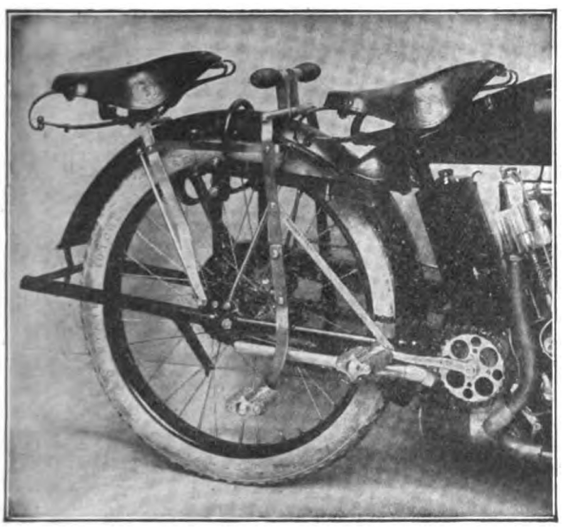
BU-REM MOTORCYCLE SPECIALTIES

The Most Practical and Most Up-to-Date Motorcycle Appliances on the Market

Note the Compactness and Simplicity of our Specialties. They are made to please.

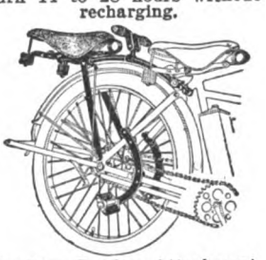
Bu-Rem Tandem Attachment For 1913 INDIAN.
Price $15.00 Complete with Saddle.



Distributors for THE SILENT INDIAN
Cincinnati and Vicinity

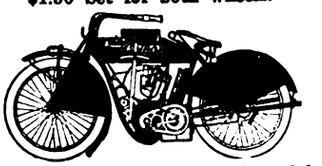
Bu-Rem Electric Light Outfit.
$8.50 Complete.

No Flame, No Smoke, Windproof. Will burn 14 to 28 hours without recharging.



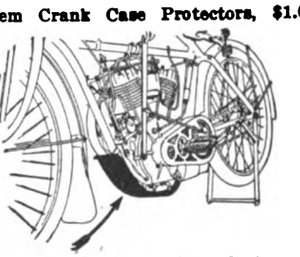
Bu-Rem Tandem Attachment.
Fits All Loop Frame INDIANS **except** 1913 Model. Price, less saddle, **$12.00.**

Bu-Rem Dust and Mud Shields.
$1.50 Set for both wheels.



Protect Rider and Machine. Save labor and inconvenience of cleaning.

Bu-Rem Crank Case Protectors, $1.00.



Protect Crank Case, Pet Cocks and Motor. Will fit all makes with Loop Frames.

The BUMILLER REMELIN COMPANY

Manufacturers—Jobbers—Dealers **Cincinnati, Ohio**

The Yellow Jacket Models Won at the Show

—Won the admiration of riders;
—Won the co-operation of dealers;
—Won the praise of everyone

who was interested in good motorcycles. The Flying Merkel Yellow Jacket models will be more popular than ever this season. Today, look up the dealer who handles

THE FLYING MERKEL

"The motorcycle without a regret"

and see for yourself. Take a trial run on one of these famous machines. Find out why, in every event where Power, Speed and Durability are factors, that the Flying Merkel always makes a perfect score.

Write today for
ILLUSTRATED ART CATALOG
Just published

The Miami Cycle & Mfg. Co.
300 HANOVER STREET
MIDDLETOWN, OHIO
MEMBER M.M.A.

SPEED WITH ECONOMY

Patented in Europe

Patented in America

The M&M Economizer is guaranteed to increase your speed and power 20%, **WITH LESS GASOLINE,** and **LESS CARBON. IT IS ALSO GUARANTEED** to save from 40 to 50% of gasoline. It is the only known carbureter adjuster on the market. Do not throw your old carbureter away until you have applied our device. **THEN NOTICE RESULTS.** It is **GREAT** for priming the engine, and acts in the capacity of an air brake.

The M&M is nickel plated and highly polished, and it is positively air tight when closed. It requires a ¼" pipe tap to insert into manifold. It is made with six portholes, which when open, admits auxiliary air into the manifold.

READ THIS! Then watch for next month's testimonial.

Gentlemen: Elmira, N. Y., Feby. 6th, '13.
I wish to advise that I have tried the M&M on my Flying Merkel with gratifying results. In testing this device on my machine, I find to my satisfaction that it has given me from 30 to 40% more speed and power, at the same time saving from one fourth to one third gasoline consumption. I find that by setting throttle, then opening the M&M, immediate acceleration is noticeable; in closing the M&M, retardation in speed takes place (throttle kept stationary during this action). This proves that the M&M is giving more air and producing a better mixture than carbureter alone. I expect to install another Economizer on my INDIAN, just as soon as same has been overhauled, as I now receive perfect satisfaction from the use of this valve on my MERKEL.
Yours very truly,
(Signed) LAWRENCE E. POPECK,
No. 608 E. 2d St.

Money refunded in 30 days if unsatisfactory. **PRICE $1.25 Prepaid.** **Send for catalog and information.**

BEWARE OF INFRINGEMENTS.

Moller Brothers Controller & Economizer Company

Main Office:
700 Betz Bldg., Phila., Pa.

Factory:
Lewistown, Penna.

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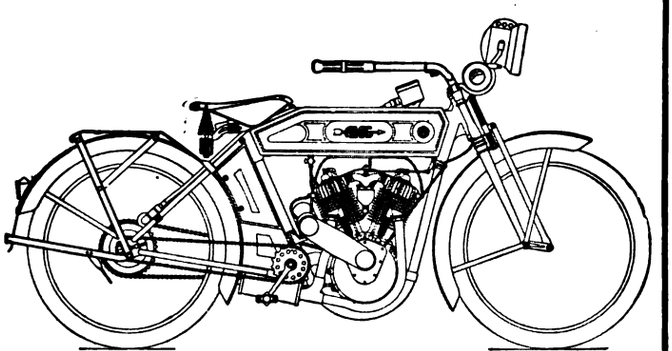
AMC



THE ONLY COMPLETE MOTORCYCLE

With Every Equipment

Five Models

All with Eclipse Free Engine Pulley

A machine with an abundance of power, exceptionally well proportioned and balanced, made to answer every requirement of city use and touring with the greatest comfort and economy.

The successful agent does not guess; he knows—because he takes the trouble to find out. Get the A-M-C proposition which shows the way to easy sales and big profits.

Manufactured by

Allied Motors Corporation

MOTORS BUILDING
Union Park Place and Carroll Ave. CHICAGO, U. S. A.

"Hints on Chain Drives for Motorcyclists"

That's the name of the most valuable and instructive little book ever compiled for the guidance of motorcycle riders. It tells the story of the making of the first chain by Hans Renold; it gives accurate directions as to the proper care of chains—in fact—it goes **very deeply** into the subject of chains. And you can get a copy **absolutely free** if you'll write in and ask for it, giving the name of your dealer when doing so. Of course, the fame of the

RENOLD CHAIN

as the most reliable and efficient transmission in existence has reached you by this time. Of course you know that it is almost exclusively used by the chain-drive motorcycle manufacturers in England. There is a very good reason for it. Let us explain.

PETER A. FRASSE & CO.

Buffalo 419 Canal St., N. Y. Philadelphia

This "Ad" is meant for the Ladies

We wish to call attention to our ladies' clothing department, and particularly to the skirt illustrated here. This skirt may be used either for riding or walking purposes. The two divisions of the skirt are formed in front by a button panel and when worn thus appears as an ordinary skirt. When riding, the front panel is unbuttoned at the left side, folded over and buttoned down the right side or removed entirely, as desired. We make a Norfolk Jacket to complete this habit, which is similar to our men's jacket. These habits are symmetrical in outline, practical, smart, sensible and are the perfection of the tailor's art.

FOWLER CARNES COMPANY AURORA BRAND **AURORA ILL.**

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WANTED—

REPRESENTATION FROM LIVE DEALERS TO SELL THE CELEBRATED LINE OF ANGSTEN-KOCH ACCESSORIES. WE HAVE A PROPOSITION THAT MEANS AS MUCH TO YOU AS YOUR AGENCY. WE SELL ONLY WHAT WE MAKE—HAVE THE FACTORY BEHIND IT TO MAKE SHIPMENTS WHEN THE RUSH COMES. WHEN VISITING CHICAGO MAKE IT A POINT TO SEE OUR FACTORY, WE WANT YOU TO GET BETTER ACQUAINTED WITH US AND OUR GOODS. FILL OUT COUPON BELOW, NOW. IT WILL COST YOU NO EFFORT—IT MEANS MONEY FOR YOU.

ANGSTEN-KOCH CO., CHICAGO.

I AM ONE OF THOSE DEALERS WHO NEVER BELIEVES IN OVERLOOKING A GOOD PROPOSITION. I WANT TO KNOW MORE OF YOUR LINE —SEND ME WITHOUT OBLIGATION ON MY PART—INFORMATION AND DESCRIPTIVE MATTER AND PRICES.

NAME .....

ADDRESS .....

ANGSTEN-KOCH COMPANY
INCORPORATED
MAKERS OF
GOOD SPECIALTIES
CHICAGO
215-219 Englewood Ave.

Dealers—Read This-Then Act

Dealers—are you awake to your opportunities? Do you realize that every minute some other dealer is making a sale which **you** should rightfully be making? White strip and Sea Lion Belts will find a ready sale because discriminating and experienced users realize their superior quality. **Write us about it.**

White Strip Belts

The distinctive feature of the White Strip Stretchless Belt is a thin strip of White material, which runs the entire length of the belt between the outer plies. This insert has over 3 times the tensile strength of single leather. The entire strain of the Belt comes on this center ply and the outer layers of leather act as a cushion on the pulleys. This is only one reason why White Strip Stretchless is superior to other Belts. White Strip Stretchless Belts are guaranteed in the strongest way.

Sea Lion Belts

The leather used in Sea Lion Belts is made from specially selected stock, cut from the choicest part of the belting butt —the center of the back. It is tanned with pure oak bark, by the old-fashioned, long-time process. This is the only process ever developed that properly tans leather for belting purposes. These Belts are built along the lines of our factory Belts. Sea Lion Belts are protected by an unusually broad guarantee.

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Particularly interesting to motorcyclists

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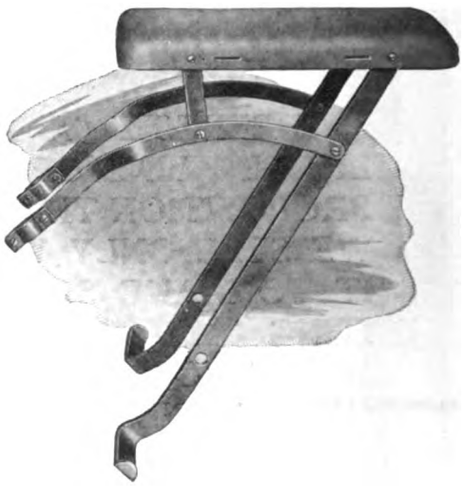

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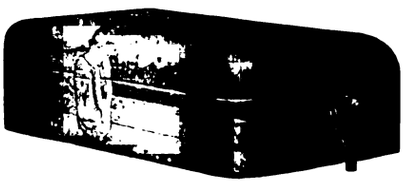

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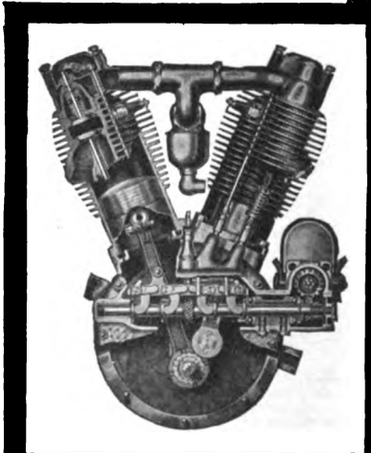

1913 Will Be a DeLuxe Year

Motorcycle Manufacturers, place yourselves in a position to supply the certain demand.

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Leading motorcycle engineers of the country have pronounced this plug right in principle and construction. The length over all is 2¼"—just the right size for the limited dimensions available for a spark plug in the motorcycle motor. The porcelain is made in our own potteries. Heat cannot crack it. The bushings are case hardened. The terminal nut will take ordinary wire, ring, or special "Indian" terminal.

Comes in half-inch or metric sizes. Your dealer will supply you—or sent prepaid on receipt of price and size. Our guarantee—"Your money back or a new plug, unless you are absolutely satisfied."

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Size	Tubes and Casings Guaranteed	Heavy Red Tubes	Tube Casing
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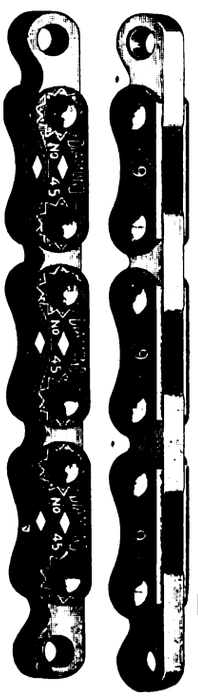

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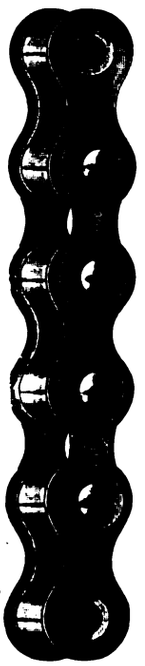

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Capacity 8,000,000 feet per year
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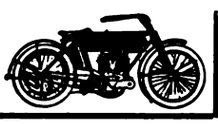

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A FINAL CLEARING SALE FOR THIS WINTER

We have left to close out, the finest assortment of high grade used motorcycles in the United States to select from. Indians, Excelsiors, Merkels, Harley-Davidsons, Popes, Reading Standards, M. & M.s, and other makes in twin and single cylinders, belt and chain drives, also 4 cylinder Hendersons and Pierces. If you want to buy a high-grade used motorcycle **AT ABOUT 1/3 OF THE COST OF A NEW MOTORCYCLE, THIS IS YOUR CHANCE.** If interested write now for our complete list with prices, select the one you want, and we will put it away for you until Spring, if you so desire, without any storage or any other charges attached.

Complete Line of Motorcycle Supplies

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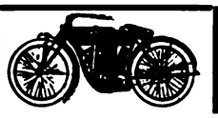

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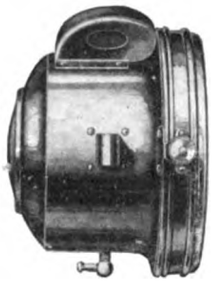
Our latest model. The greatest light producer on the market. Largest genuine mangin mirror ever used in motorcycle lamp, **viz. 6½".**



Specifications.

Front diameter .....8¼"
Body " .....6½"
Size of lens .....6½"
Made from one-piece heavy metal. Props and hoods solidly riveted and soldered. Adjustable focus. Mirror fastened with removable lugs.

Latest member of the up-to-date Victor line which includes the already famous X-Ray, Pathfinder, Tourist and Indian.
Dealers should not fail to get our proposition before closing contract.

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"JUST FLOATS ALONG"

A few of the features that help make the STOLL DREAM TANDEM the easiest riding tandem in the world.

Genuine leather cushions gracefully shaped and provided with skirt guard and pockets.

Folding foot-rest.

Rocking motion which allows the tandem to remain steadily in the same position, regardless of the jolting of the machine.

The back-rest combined with the rocking motion give the rider a sense of security and comfort found in no other tandem. Can be raised or lowered instantly while riding.

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Get in line with the live ones.

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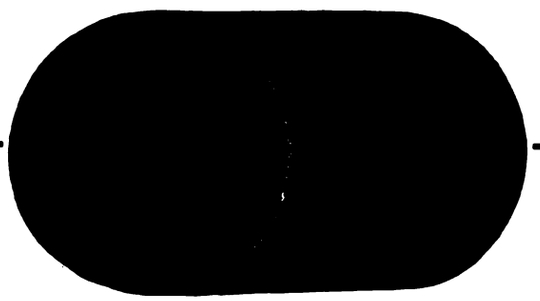

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AN AIR-FILLED MOTORCYCLE TUBE POSSESSING VERY UNUSUAL FEATURES:

First: It withstands a tread puncture without deflating the tube.
Second: The higher the pressure the tighter the puncture closes.
Third: It eliminates the risk of destroying casings by reason of punctures.
Fourth: The danger of loss of control of machine is removed.
Fifth: It assures you of not being obliged to repair a puncture on the road and gets you "there and back" on full tires.

AIR FILLED ONLY.

Punctures are self-closing by reason of a scientific but simple principle of construction.

NO "DOPE," GUM, PASTE OR OTHER STUFFING MATERIALS.

Write for prices, full description and sectional sample.

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Our frame parts are made from individual blue prints only and we use in their construction only the finest quality of

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THE LIGHTEST, STRONGEST, SMOOTHEST STEEL TUBING MADE

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(Patented)

SHOWING A RED REAR LIGHT

THE ONLY RELIABLE MOTORCYCLE OIL LAMP

LAMP WEIGHS ONLY 12½ OUNCES.

The Neverout complies with the laws of the various States and Municipalities.

The Neverout burns kerosene ten hours with one filling, and will stay lighted under any and all conditions. All riveted—will not rattle or jar apart over roughest roads.
Made in gun metal, brass or nickel finish. Double clamp bracket furnished; fastens lamp securely to fork of motorcycle. No danger of shaking off, and *shows red rear danger signal.* Sold by leading jobbers and dealers everywhere.
The Neverout is equipped with a *Patent Glass Covered Reflector of German Silver,* instantly removable; never loses its original brilliancy.

Guaranteed to stay lighted or money refunded

FOR SALE BY LEADING DEALERS.

Made Only by **ROSE MANUFACTURING COMPANY**
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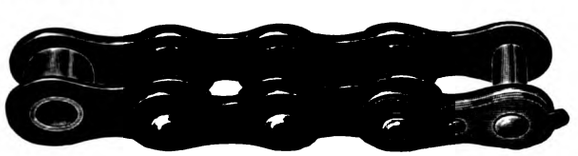
should be equipped with chains that will stand up under all conditions. You can depend upon the "Whitney" Chain whether in rain, mud, sleet or snow; they are always on the job. They give the maximum amount of service because they are made by men with years of experience in chain making.



When making replacements insist on a "Whitney."

"Whitney" Chains Are Built for Strains

The Whitney Mfg. Co.
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NATHAN

on all motorcycle garments means to dealers absolutely right goods at absolutely right prices. To riders it means the best that money can buy.

Beware of Imitations.
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Governs and administers the sport of Motorcycle racing and other competitions in which motorcycles engage; it defends and protects the rights of motorcyclists and facilitates touring; it encourages the use of motorcycles and promotes the general interests of motorcycling.

For F. A. M. Booklet and all information write

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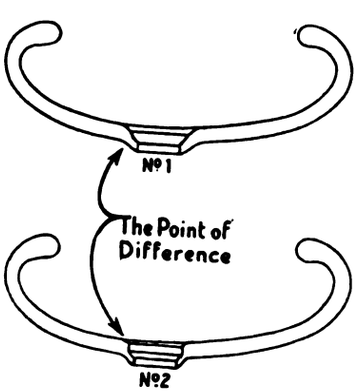
Chairman Membership Committee F. A. M. **Bangor, Maine**



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THE superiority of the Mott motorcycle rim lies in the little points that the average riders never notice, but that show up strongly in hard service. For instance, take the way the spoke holes are punched. On Mott rims this is carefully and accurately done so that there is ample strength to hold the nipple securely. Sketch No. 1 shows the idea.

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Mott thoroughness shows up in the tests. Note the wheels that come through the severe endurance runs in the best condition. You'll find them fitted with Mott rims. To be sure of satisfaction, specify Mott rims for your machine.

WRITE US FOR FULL DETAILS
THEY WILL SETTLE THE RIM PROBLEM FOR ALL TIME

MOTT WHEEL WORKS, Utica, N. Y., Manufacturers

R. B. ABBOTT SALES CO., Sales Agents, Majestic Bldg., Detroit

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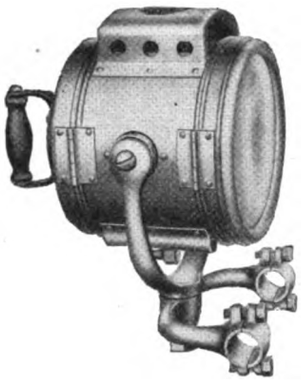

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Send us the name and model of your motorcycle. We will tell you the grade of Gargoyle Mobiloil that is best suited to it.

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They are made of EVRDRI cloth which amply protects from storms. We make the F.A.M. official uniforms.

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"The Little Horn with the Enormous Range"

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Or send $5. You will be glad you did.

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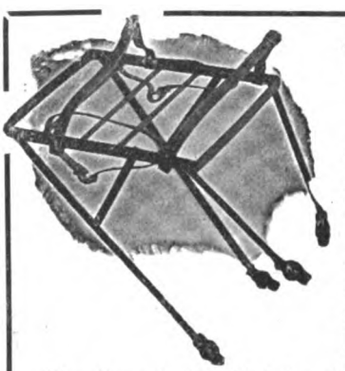

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Scientifically constructed of steel, heavily re-enforced at points of wear, the Star can withstand considerably over 300 lbs. weight. For tandem riding the spring action makes it an exceedingly comfortable seat.

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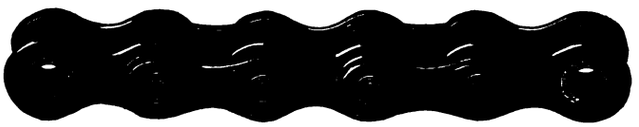

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Service Chain has been adopted by all High Grade Makers—Why?—An investigation will show you

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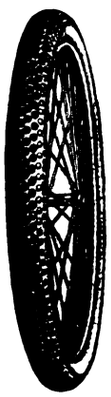

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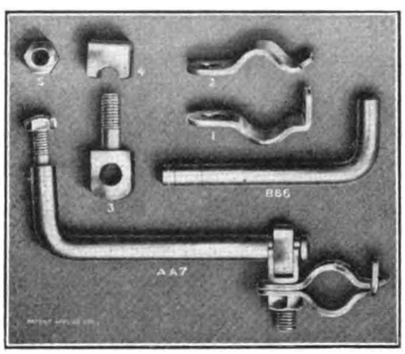

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Fits all Standard makes of Lamps.
Can be used on any Motorcycle—straight or "V" shaped Handlebar.
EASILY ADJUSTED.
Per pair, $1.25.

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If you want to secure "Gulliver" quality at "Lilliput" prices—or in other words—a lot of value at small cost, send for our catalog of OMC motorcycle supplies. Everything for the dealer and rider. Don't fail to get our catalog.

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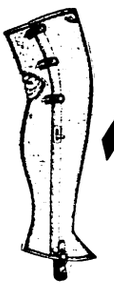

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for Jobbers and Dealers by selling the HALCO LEGGINGS, which have become immensely popular with Riders everywhere on account of their wonderful Comfort and Long Wearing qualities. There's plenty of Style, too.

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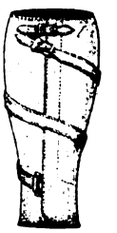

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Protect your tires from the injurious effects of light, air, oil and moisture by a weekly coating of

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Makes Tires Look Like New

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TIRE CUT FILLER

a non-inflammable, self-vulcanizing, rubber compound—combination cement, cut filler and mastic. Heals over night—becomes like a part of the tire. $1.00 a tube. Dealers—Car Owners. Send $1.00 for a trial can of Tirenew—enough for 10 tires.

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The only article on the market which will do away with belt trouble. Gives wonderful results when wrapped two or three times around pulley. Prevents belt from burning, hardening and becoming glossy.

No Screws to Cut Belt

Made in all standard widths. Price, 50c. a roll.

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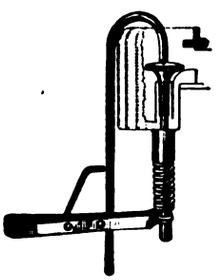

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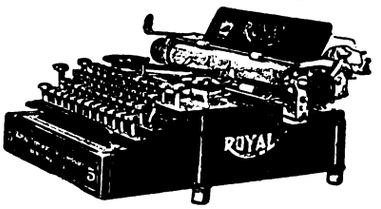

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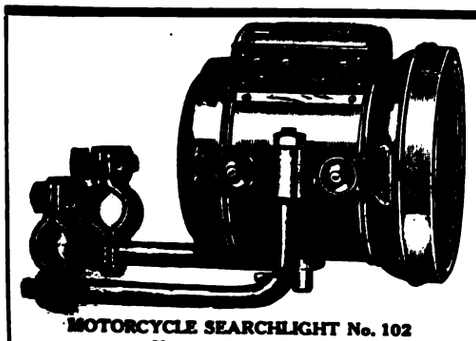

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Dictionary Definition—"SEARCHLIGHT—A powerful light set in a reflector and so mounted that its rays are almost wholly gathered into one beam, which may be used to throw light on distant objects."

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do not scatter their rays. They have a long range power with direct concentrated ray, revealing dangers in plenty of time to be avoided. They brilliantly illuminate the road far ahead, mercilessly exposing every rut, every stone in the road. They are the ideal touring lamps.

Our illustrated catalog describes our entire line and is yours for the asking.

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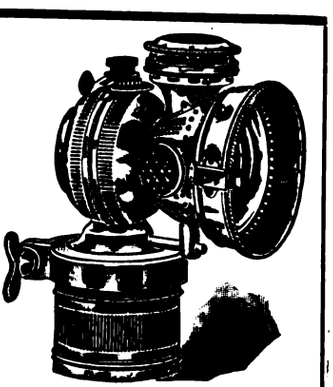

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to run through a whole season on an oil that lubricates perfectly, and without having to bother with "fouled" plugs or "carbon" troubles?

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WILL GIVE YOU THESE RESULTS.

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Have your dealer get you some or send direct for delivered price and Booklet—HOW TO TELL PENNA. OILS.

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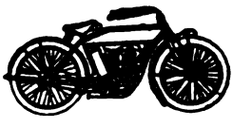

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AT 1/4 to 1/3 THE PRICE WHEN NEW

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Large assortment of used motorcycles, single, two and four cylinders; chain, belt or shaft driven—Indian, Pierce, R-S, Excelsior, Curtiss, F. N., N. S. U., M. M., Harley-Davidson, Thor, New Era, Merkel and other high-grade makes from $35 up.

Practically all styles and makes of automobiles at $100 up.
We guarantee each purchase to be in perfect running condition.

Agents wanted everywhere. ***Write for price lists and descriptions.***

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The Standard of the World

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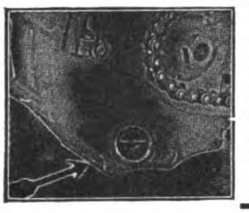

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A SIGHT-GLASS OIL GAUGE

For the crankcase of your engine. Shows the oil level at all times. Makes engine run steady. Plugs will not foul. Can be put on any machine in 15 minutes. Fits Harley, Excelsior, Jefferson, Flanders, etc. Shipped complete with tools, $1.50. Circular free.

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IT'S GUARANTEED

1. To increase power 20%; 2. To save 20% Gasoline;
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You will never know how perfect your Motorcycle can run until you try SPEEDO. Attached in five minutes on intake manifold. Your money is refunded if you are not pleased

PRICE, $2.00, Including Decarbonizer

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All Sizes and Styles $1

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1912 Thor White, 5, $175; racing Thor, 4, very fast [from Riverview track], $100; 1912 four-cylinder Pierce, $250; 1910 four-cylinder Pierce, $175; 1912 Harley-Davidson, $175; six h.p. Thor Twin, [magneto], cost $300, $140; 1911, spring frame, Greyhound, cost $225, $100. All above machines in excellent condition; mostly late new ones; slightly used; many others down to $25.

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for your motorcycle. Nothing too old, nothing too new for us to buy. We will buy one or a hundred. Box 13, Station G. New York City

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ARE THE BEST
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The New "N. A." BREEZE

Delivers a larger volume of properly mixed gas than any other motorcycle carbureter in the market.

Works Perfectly When Throttled Down to 230 Revolutions Per Minute.

At over 3,500 revolutions it is just as effective.

All air ports have been enlarged.

A perfect mechanical device to increase gasoline supply automatically with the opening of the throttle has been fitted.

Send for free catalog. Our Engine Trouble Text Book, 54 pages, will be mailed for 10 cents.

BREEZE CARBURETER CO., Newark, N. J.

Motorcycle Tours in the United States

350 Routes over the best roads in every State of the Union

56 Pages ***15 cents postpaid***

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Ride the Good Old **M·M** 4 to 8 H. P. $140 to $225

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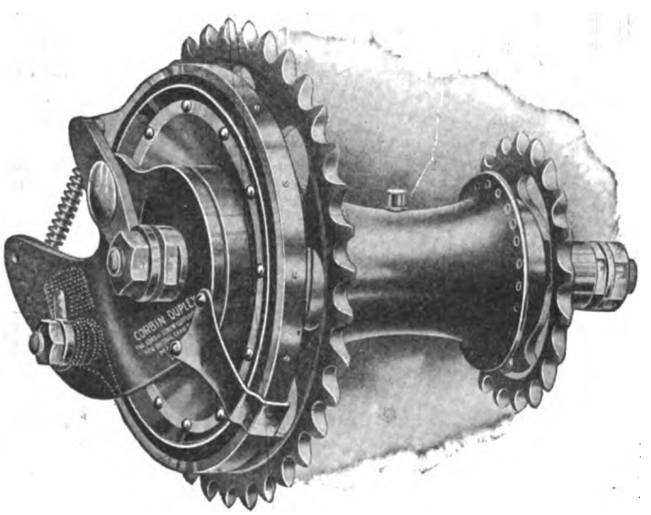
The Popularity of the

Corbin Band Brake

FOR MOTORCYCLES



This is fully attested by the fact that so many motorcycle manufacturers are equipping this brake to their 1913 models.

Over one-half of all the motorcycles that will be manufactured in America during 1913 will be Corbin equipped.

The Corbin is the brake that motorcycle manufacturers take pleasure in announcing in their catalogs. It is the one brake that holds the full confidence of motorcycle riders.

Send for new 1913 catalog describing all the models of Corbin Brakes and Hubs.

The American Hardware Corporation

(The Corbin Screw Division)

NEW BRITAIN, CONNECTICUT

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LICENSED COASTER BRAKE MANUFACTURERS

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Your Motorcycle Becomes a Different Machine the Moment You Equip

PENNSYLVANIA Oilproof VACUUM CUP TIRES

built to the same standard of construction as our Oilproof Vacuum Cup Automobile Tires.

With these tires your machine cannot skid on wet or greasy pavements—the suction hold of the Vacuum Cups is positively dependable.

Yet there's not the slightest loss of power.

With these tires you can travel over even freshly oiled roads with impunity. They are absolutely oilproof and immune from "oil disease."

What Is More

Vacuum Cup Motorcycle Tires carry a definite printed guarantee of

5,000 MILES

and average a far greater distance.

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To the best of our knowledge, gained by wide observation and investigation

Our guaranteed mileage of 5,000 miles represents twice the average mileage made by ordinary motorcycle tires

If you realize that your motorcycle is a true power-propelled machine and not merely a big bicycle, then you will equip

Vacuum Cup Motorcycle Tires

DEALERS: The strong tendency toward increased power that marks the production of over 80,000 new motorcycles for 1913 will lend great additional stimulus to sales of Vacuum Cup Tires, because of the safety and service qualities which lift them above all comparison with other motorcycle tires, and because of the definite 5,000 mile guarantee that backs them up. Be ready to supply them—make the most of the demand swinging over to them.

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This is to Certify that the

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SPARK PLUG

has completed a four years' Course in All Types of Engines, and having proven its Mastery in Cranky, Oily and High Powered Pleasure and Racing Cars, Commercial Vehicles, Speed Boats, and Motorcycles, is hereby declared a

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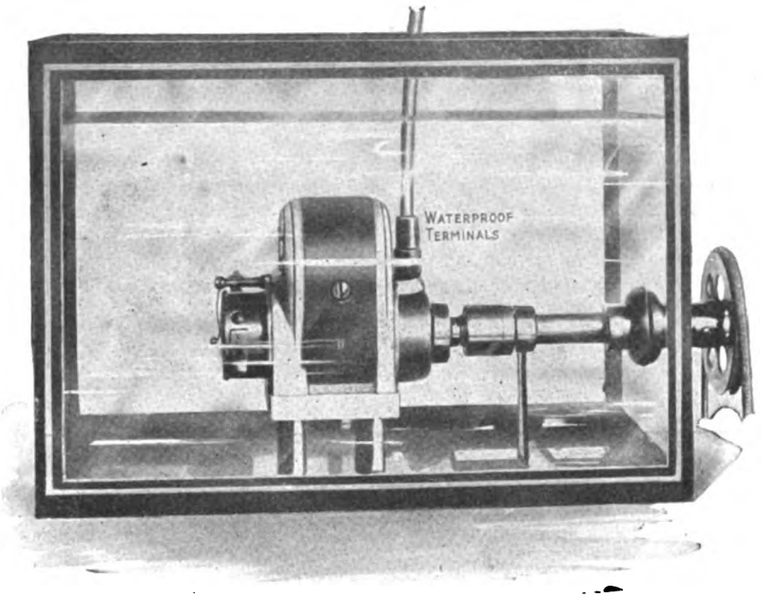
Contact Points of Platinum with 25% Iridium



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Never Before Was Anything Shown Like

THE IMPORTED

HERZ MAGNETO

Running Submerged in Water for 16 Days during the New York and Chicago Shows

In the official English test, HERZ MAGNETO was proved to be 30% stronger than the strongest of fifteen competitors.

HERZ MAGNETO starts the motor at 35 R.P.M. as against 45 R.P.M. for the best of the other makes.

There can be no question of the superiority of HERZ MAGNETO for motorcycle use.

Completely Enclosed but Easily Accessible

Write for Prices

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$10,000 Set Aside
To Introduce
The Rogers Motorcycle Sidecar

The motorcycle sidecar is here to stay!

The perfected 1913 Rogers Motorcycle Sidecar is the proven leader in the field. We are preparing to sweep the country during the coming season.

We are confident that the first Rogers seen in the streets of any city **will sell scores of others.**

In order to give the thousands of motorcyclists an opportunity to study the merits of the Rogers, we have decided to use $10,000 to introduce these remarkable sidecars all over the country.

Here is the plan—the benefit of the $10,000 is yours:

Write your full name and address on the Ten Dollar Introductory Certificate printed on the opposite page. Mail it to us together with ten dollars. The certificate and your money will be accepted as a part payment of twenty dollars on a Rogers Motorcycle Sidecar. The order **must** come from a city of more than 5,000 population to be considered.

Rush your order at once! We want a thousand.

The Rogers Motorcycle Sidecar

Price $85.00 F. O. B. Factory, Goshen, Ind.

Note the beautiful body design, the sweeping lines, the roominess of the body. These factors, together with distinctive constructional features easily make the Rogers the choice of motorcyclists.

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The Rogers Leads Them All!

The Only Sidecar Built For Pleasure and Business

Increases Motorcycling Joys

Don't appear selfish. Don't allow your traveling companion to ride on an objectionable rear seat. Take advantage of our introductory offer and purchase a Rogers Sidecar. Your friends will be delighted to ride in it—**by your side**—with a clear vision ahead. There is no sidecar like the Rogers for beauty, comfort and safety. It has attractive racy lines—looks like an automobile. The tonneau is roomy. The seat and trimmings enhance the car's appearance and give additional comfort to the passenger. Long, resilient springs insure maximum riding ease and lasting service. The car can be attached **in 3 minutes** and detached **in one minute.**

The Rogers' Delivery Service

Here is another big reason why you should have a Rogers. It is the only sidecar built that can be converted into a package carrier. You don't have to detach it from the motorcycle. All that is necessary is to remove the seat and trimmings as a unit. The operation takes less than a minute. When it is finished you have a spacious, reliable carrier of merchandise. It will sustain a load of 400 pounds. It has a capacity of 20,000 cubic inches. It is just the kind of a delivery service every merchant should have. It is swift—economical. Get a Rogers and it will build your business by assuring your customers of a rapid delivery service.

Constructional Points of the Rogers

The Rogers Sidecar was designed and built by a noted engineer. Every part is so constructed as to give strength and durability, comfort and safety. Read a few of the specifications: Extra long Cee springs of special design, constructed to eliminate the use of shackles that work loose or rattle. Frame of Shelby seamless tubing welded with oxygen-acetylene process instead of brazed. Fittings all steel. All adjustments for lining up motorcycle and sidecar by threaded parts. This, together with square tubing found in no other car, makes loss of alignment impossible. Body enameled and striped in red, gray, bronze and black.

Get in the Race! Clip the Certificate Below! Mail It Today!

Clip the certificate below now. Don't delay a minute because scores of others in your locality will be in the race. It's an unprecedented offer. Mail the certificate and your $10.00 and we will credit you with $20 on your Rogers as stipulated below. This offer is backed by every resource of this company. We back this offer by our reputation. Clip the certificate now.

$10.00 *Ten Dollar Introductory Certificate* **$10.00**

.....1913.
Date here

Credit to the order of.....
Write name and address in full

Ten Dollars and No One Hundreths Cents..... **$10.00**

This certificate, when filled out with sender's name and address and accompanied by $10.00, shall be accepted as a part payment of $20.00 on a Rogers Motorcycle Sidecar, providing the sender resides in a town or city of over 5,000 population.

AERMORE MANUFACTURING CO. Dept. 5793 1536 Michigan Blvd., Chicago, Ill.

This is a fair offer. It is done solely for the purpose of getting the Rogers known all over the country. We will deposit your ten dollars to your credit.

AERMORE MANUFACTURING CO., Dept. 5793, 1536 Michigan Blvd., Chicago, Ill.

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Pittsburgh, Pa., Feb. 24th, 1913.
Continental Rubber Works, Erie, Pa.

Gentlemen: I am writing this letter to inform you of the wonderful service of a Continental Tire that was purchased by me from a Buffalo jobber last summer; this tire is the regular 28 x 2½ size and was installed on the rear wheel of a Yale Motorcycle. After 2500 miles of hard service, it was put on the front wheel and entered in the Columbus tour to the F. A. M. meet last summer, since that time the tire has traveled 1500 miles on the front wheel and has never been punctured.

This tire is still in excellent condition and has certainly proved that the tire for service is the Continental. When the buttons are off the tread, you still have some tire left and this is where the rest fail.

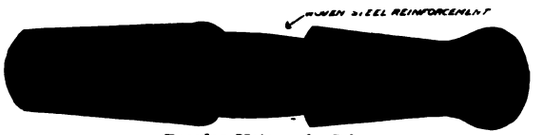
I have specified my new machines to be equipped with your tires and know I will not be disappointed.

If this letter will be of any assistance to you then use it as you wish, as all the facts are absolutely correct.

Wishing you every success, I remain,
Very truly yours,
(Signed) EARL W. DEAN.

4000 Miles on Continental-Erie Tires without a puncture!

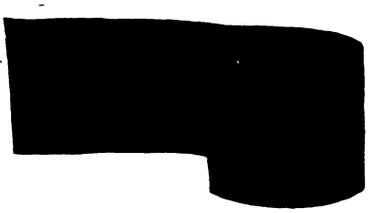
That's Service for you!



Regular Motorcycle Grip.

Continental-Erie Woven Steel Reinforced Grips are the only grips made that are ABSOLUTELY INDESTRUCTIBLE. The Woven Steel Reinforcement in the center part of the Grip strengthens it at its weakest point and prevents it from breaking. In addition to the steel reinforcement, our Grips have an inner lining of fabric which makes them as pliable and as resilient as any other grip on the market. These are made to fit all makes of machines.

When ordering your 1913 machines, specify these Grips and thus avoid replacements.



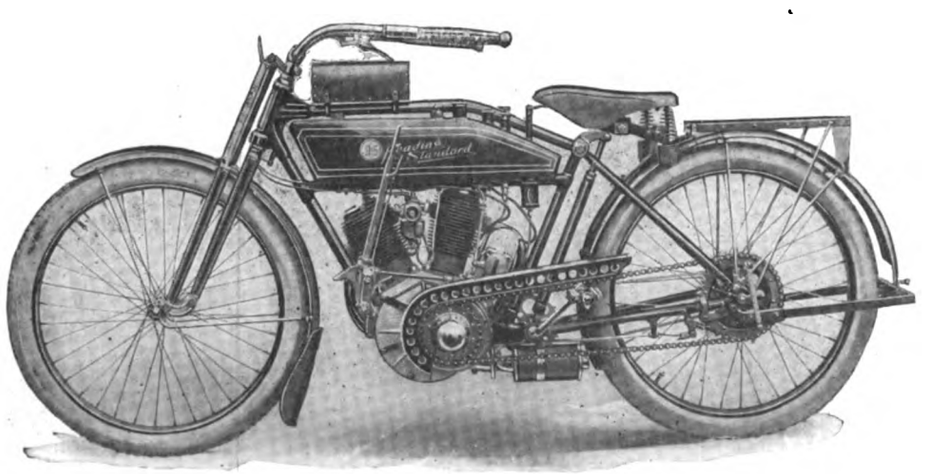
Continental-Erie Non-Slip-Lag The only pulley lining on the market that gives entire satisfaction, prevents belt from slipping, increases power, applied without removing belt or wheel. Carried in stock by all jobbers and dealers.

CONTINENTAL RUBBER WORKS, Erie, Pa.

BRANCHES { NEW YORK 35 Murray Street | CLEVELAND 1551 Columbus Road, N. W. | CHICAGO 180 No. Market St.

Mr. Dealer, what will you do if you lose the R-S agency for your town?

With what machine will you attempt to compete with the R-S? What other machine has a motor like the R-S, with its integral cams and gears of specially treated vanadium steel, its large cooling flanges, its long stroke, its foot rests, its perfect shock-absorbing spring seat posts, its double brakes, double oiling system, and hundreds of other features?



What other machine has anything like the perfect service behind the R-S, the product of years of rigid study and research?

And what other motorcycle has behind it the sterling reputation, the good name of the R-S? Can you afford to compete with the R-S dealer?

Our catalog is yours—if you want it.

READING-STANDARD CO.
340 WATER ST.
READING, PA.

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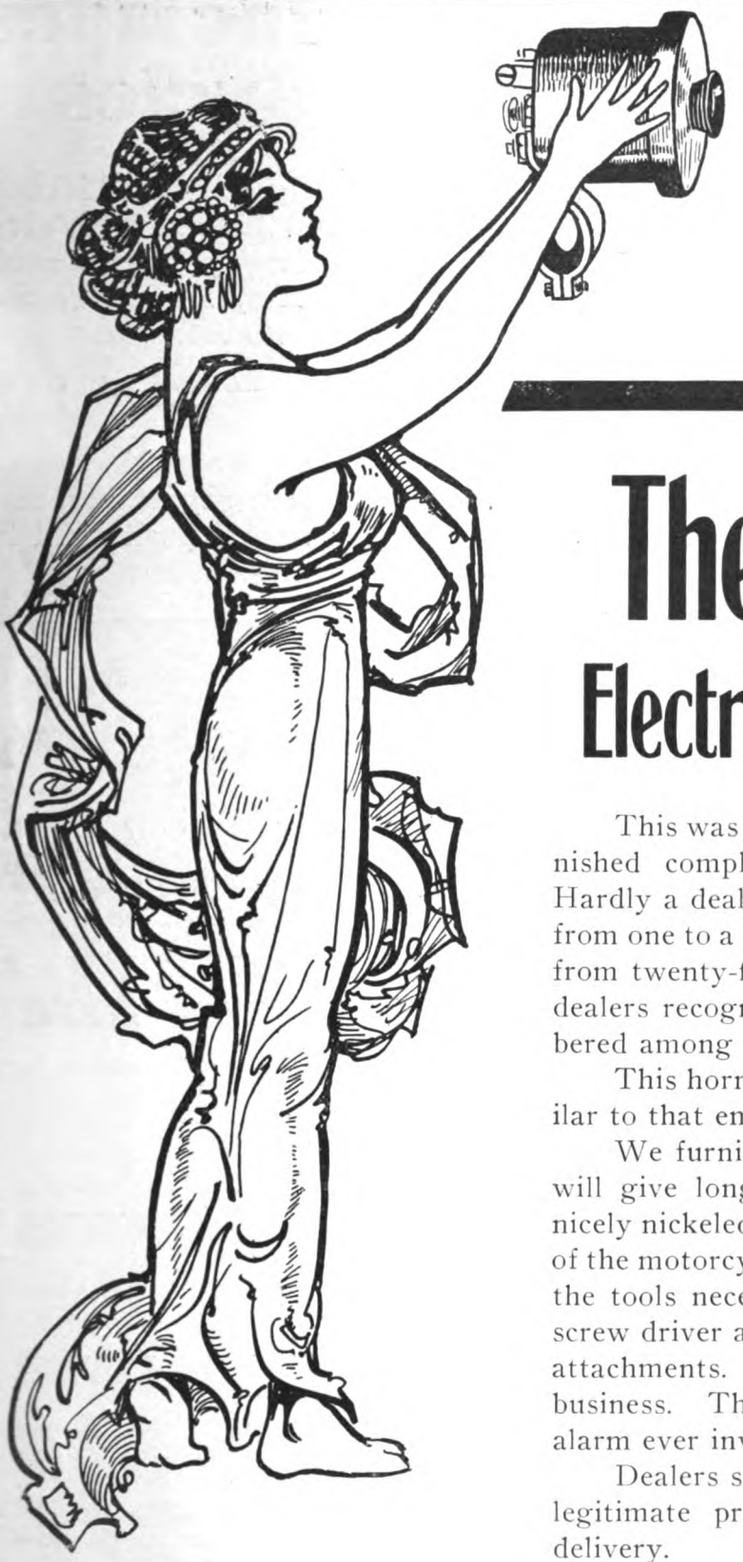

The Biggest Hit at the Show

The Perfection Electric Motorcycle Horn

This was the only electric horn shown which was furnished complete with all attachments for operating. Hardly a dealer has seen this outfit who has not ordered from one to a dozen, a large number of distributors taking from twenty-five to one hundred each. Three Canadian dealers recognized the worth of this horn and are numbered among those who placed orders with us.

This horn gives a long-range, penetrating sound similar to that emitted by the electric automobile horns.

We furnish with the horn a standard battery which will give long service, the battery being enclosed in a nicely nickeled case which can be fastened to the frame of the motorcycle with clamps which we also furnish. All the tools necessary to attach the horn and outfit are a screw driver and wrench. Horn comes complete with all attachments. No extras to buy—comes all ready for business. The best thing in the way of a motorcycle alarm ever invented.

Dealers should have a sample outfit—large sales and legitimate profit assured. We have them ready for delivery.

Chicago Cycle Supply Co.

FACTORY DISTRIBUTORS TO THE TRADE, BICYCLE AND MOTORCYCLE SUPPLIES

22 W. Lake Street **Chicago, U. S. A.**

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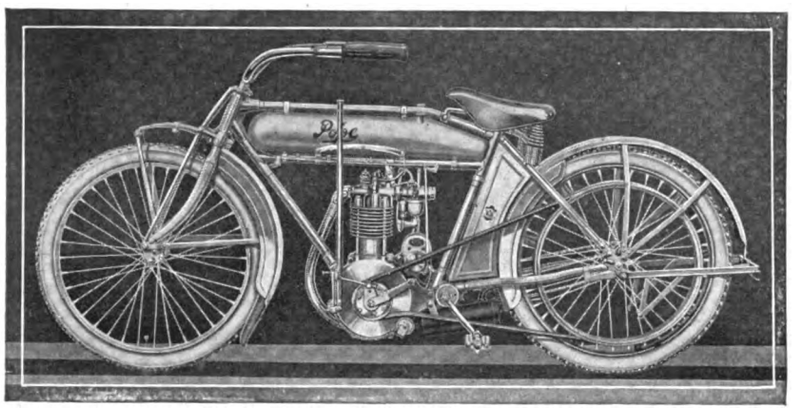
The Leading Lines for 1913 Includes Two Pope Pioneer Motor Cycles



Model K—"Big 4"—$200—Magneto Equipped.

The Powerful "Big 4" with Mechanically Operated Overhead Valves—producing more power because of Quick Ignition, Direct Thrust, and Positive Exhaust.

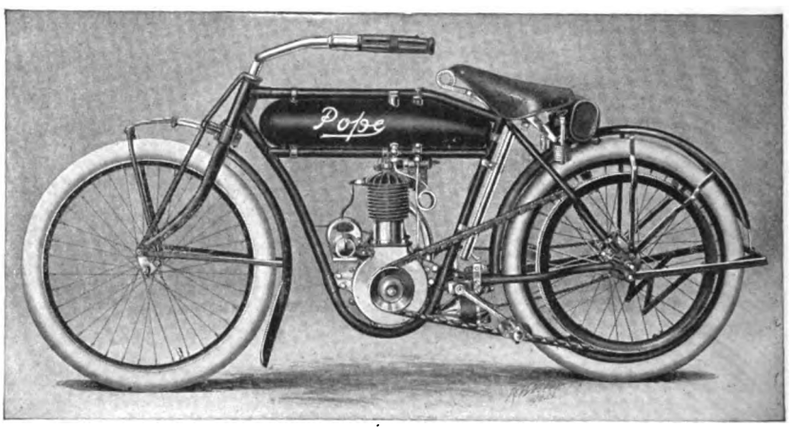
Offset Cylinder—eliminating dead center and giving maximum power at slow speed.

Cylinder and Head, separately cast, preventing carbon deposits and facilitating cleaning.

The Light, Reliable, Economical, Model H—a 4 h. p. machine, unquestionably the best of its type.

In a class by itself, its cost of upkeep is extremely low. A practical machine for every commercial purpose, always on the road and ready for use—not in the repair shop with the rest.

The leading machine of Moderate Size, Power and Price.



Model H—Lightweight—$165—Magneto Equipped.

POPE QUALITY HAS NEVER BEEN QUESTIONED

Every dealer is urged to consider the reasons which underlie the Big Lead of the Pope for 1913.

COMPACTNESS—
SIMPLICITY—
STRENGTH—
DURABILITY—
POPE FEATURES
POPE PRICES
BEAUTIFUL LINES

Two Dominant Reasons in the Chain Models

Overhead Valve Motors—More Power—More Accessible—Simpler Valve Mechanism—Interchangeable.

Pope Rear Spring Suspension—Insures riding comfort without retarding speed. Holds wheel in perfect alignment. No side play. No recoil shock. Springs of different gauges to conform to varying loads. Convertible at any time to rigid frame with low center of gravity.

POPE LINE OFFERS GREATEST VARIETY OF MODELS AND PRICES:

MODEL L, "Twin" - - - - $250 **MODEL K, 4 H.P. (Belt Drive), $200**
MODEL M, 5 H.P. (Chain Drive), $215 **MODEL H, Lightweight - $165**

THE POPE MANUFACTURING COMPANY, Hartford, Conn.

Pacific Coast Distributors.

F. P. Keenan, Portland, Oregon
Northwest

Kimball-Upson Co., Sacramento,
Northern California and Nevada.

C. L. Smith, Los Angeles,
Southern California.

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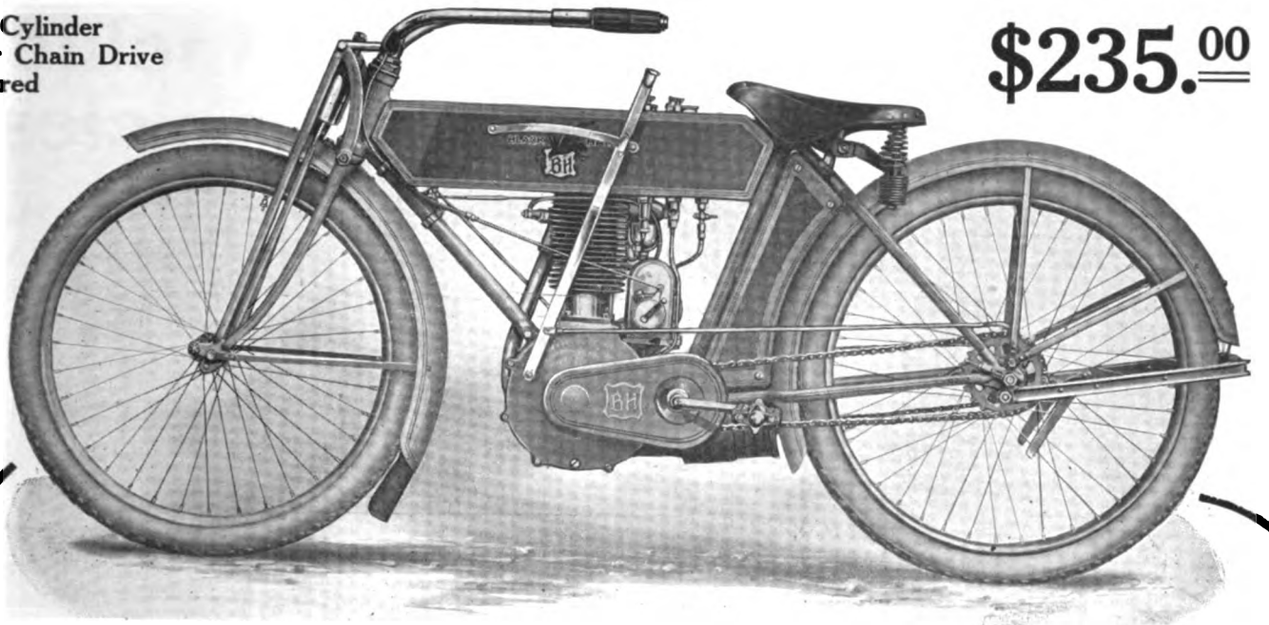
Single Cylinder
Belt or Chain Drive
as desired



$235.00

DEALERS

Get the Agency for the "Black Hawk" and You Can Control the Motorcycle Sales In Your Territory

This statement is founded on good, solid facts—facts that will aid you to sell more motorcycles, in time, than the claims of any other machine on the market.

Just read this ad and note for yourself the real quality behind this better motorcycle. Or, perhaps you know all about the "Black Hawk" and its features of superiority. Perhaps you have read our advertising and noted **the frame-and-tank construction, the mechanical oiler with sight feed, the spring seat-post, etc.**

But if you don't know all about this wonderful motorcycle, its features of excellence, **its tremendous selling possibilities, etc.**, you should learn all about it right now.

The Steel Tank Built Integral With Frame is one feature that will appeal to every rider. Built of 16 gauge tubing it is practically indestructible. The frame is reinforced so as to positively prevent centralization of vibration and is the most reliable of any ever constructed. Another advantage of our frame design is that it permits low saddle position without loss of frame **lines.**

The Low Saddle Position of the "Black Hawk" is a reality, the saddle being **only 29½ inches** from the ground, allowing the rider to place both feet flat on the earth without straining.

The Mechanical Oiler, With Sight Feed, is another remarkable invention (patent pending) which marks the superiority of the "Black Hawk" motorcycle. Our oiling system, of which there is **only one working part,** requires no attention. It is **positively automatic in action.** Once adjusted, it regulates itself to speed at which machine is driven and the flow stops when motor stops. Sight feed is provided to observe the adjustment. In addition to our mechanically operated oiler, the "Black Hawk" is equipped with suction sight feed system to supply surplus oil, should an excess quantity ever be needed, as in racing.

The Spring Seat Post, an absolutely shock-absorbing device that provides rider with utmost comfort in riding, coupled with safety, is accomplished by an entirely new method of spring suspension, which gives a soft spring action for ordinary work. In case of excessive shock the arrangement of the levers checks the downward movement of the saddle easily and noiselessly. All of the working parts are enclosed in one compartment of our specially designed tool box.

The Motor is without a doubt the most reliable, efficient and flexible of any motor ever put on a motorcycle. It is clean and oil tight,

TRADE MARK
BLACK HAWK

while its position in frame permits of its easy removal. One year's strenuous abuse under every possible variety of trying conditions failed to develop a single weakness.

The above are only a few of the "Black Hawk's" features that show it to be worth every cent of the $235.00 asked for it—**and a good deal more.** No motorcycle ever contained so much real value—values which could be checked up with every assertion of the manufacturer.

In addition to the selling points which we have mentioned, the "Black Hawk" leads in

Spring Fork Construction;
Improved Eccentric;
Simple Grip Control;
New Free Engine Clutch and Coaster Brake;
Simplicity and Accessibility of all parts, etc.

All of the features which we mention are features which are of utmost value to anyone considering the purchase of a motorcycle.

For instance, one decided advantage of the "Black Hawk" system of building the tank integral with frame is that it adds greatly to the strength and stiffness of both tank and frame, positively prevents leakage, does away with a large number of objectionable small parts, eliminates pockets which gather dirt, and makes possible our large filler caps which render funnels unnecessary.

Take the motor, too. When we claim **greater flexibility, reliability** and **efficiency,** this is more than a mere statement. We mean:

Flexibility—the ability of the motor to handle machine at all speeds from 50 to 60 miles and down to 4 miles per hour without the use of the clutch.

Reliability—the ability to travel hundreds of miles without making numerous road adjustments such as are necessary with most machines.

Efficiency—the delivery of ample power under any and all conditions, the "Black Hawk" motor developing more than 6 h. p., as has been shown by repeated brake tests.

Take any single part of the "Black Hawk" and you'll find the same condition exists. That is, that it is an improvement, a refinement, over any part on any machine.

In appearance, there is no room for argument. The long-straight lines of the "Black Hawk," its clean cut design, its real beauty and symmetry are evident in the illustration shown at the top of this page. Look at it. Compare it with the ordinary type machine, for instance the loop frame construction, and you'll admit that, in itself, is one reason why the "Black Hawk" is worth more in dollars and cents, and will sell more quickly, more easily than any other machine on the market.

A Big Opportunity for Dealers

Dealers who are desirous of obtaining selling rights for the "Black Hawk" in their locality are invited to write us. The selling possibilities of the "Black Hawk" are tremendous for the simple reason that the dealer back of our motorcycle has a great advantage over all his competitors. Our liberal contract terms and proposition to agents has met with great favor from other dealers. Write us, while territory is still open, and we will lay our plans bare before you.

To Riders You owe it to yourself to investigate the "Black Hawk's" claims before putting your good money into any motorcycle, regardless of make and price. If you will write us, we will send you a handsome catalog which will give you a more complete idea of Black Hawk Motorcycles—their absolute quietness in operation, their unsurpassed riding qualities and their perfect control at all times. Write for catalog—NOW—today.

BLACK HAWK MOTOR CO. Dept. B Rock Island, Ill.

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Prest-O-Lite
For Motorcycles

Ride at night with pleasure and safety

Ride when and where you please. Don't be tied down to the daylight limit, and don't judge night riding by experiences with oil or generator lamps.

Get a lamp big enough and a Prest-O-Lite for motorcycles. Then get out on the country roads. You'll have a brilliant, dependable light that turns on and off like a gas jet, at no greater expense—in all probability less cost—than carbide to feed a generator.

Regard this as an investment

$10 with gauge

Don't consider the price you pay for Prest-O-Lite as money spent. It isn't. A Prest-O-Lite can always be sold for about what you pay for it. It is the only part about your machine that doesn't become second-hand, because genuine Prest-O-Lite is in universal use and demand everywhere. And remember one spill caused by unreliable light might prove more costly than years of Prest-O-Lite service.

Test Prest-O-Lite, FREE

Let any dealer put Prest-O-Lite on your motorcycle. Use it for 30 days. Try it out over country roads and city streets. Prove to yourself that it's the best accident insurance you ever bought. We take all the risk. If you find that you can afford to be without Prest-O-Lite, take it back and your money will be refunded.

Write today for full particulars.

The Prest-O-Lite Co., 246 East South St. Indianapolis, Ind.

Canadian General Offices and Factory, Merritton, Ont.

Exchange Agencies Everywhere

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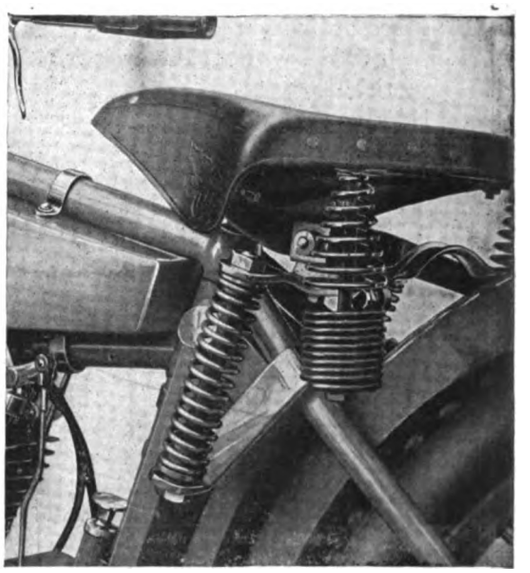
YALE

Comfort, without Danger

ON the Yale, road jars are eliminated by 128 inches of springs, (10 feet 8 inches of steel in two big coils each six inches long) in the Y-A shock absorber, placed where most good is done and comfort is insured without loss of strength.

We do not risk the rider's safety by sandwiching springs into the frame, where a break may mean serious injury.

→ Watch for changes in the spring frame designs that are now being boasted of. Their mistakes will come to light quickly on the road.



REAR-WHEEL jolts are smoothed out for Yale riders by the famous Y-A shock absorber, the "shock absorber that absorbs shocks." Two big, competent coil springs take up every big jar or little vibration—for there are 128 inches of spring steel in those two big coils. Its location is most effective, for it insulates the rider from all effects of rough roads and relieves the machine of the effect of jars and vibrations, without weakening the frame or necessitating hinged frame joints where sideplay develops to make control difficult. Y-A design makes sideplay impossible and gives the lowest saddle position. It has all the effectiveness that other designers hoped to get with elaborate spring frames, but it has none of the complications, weaknesses, and faults that make failures of the others. The Y-A shock absorber has had years of practical trying out and is proved to be right—it is not a "revolutionary" 1913 experiment.

CONSOLIDATED MFG. CO., 1730 Fernwood Ave. TOLEDO, OHIO

Eastern Representative, F. C. Cornish, 219 Clinton Ave., Newark, N. J.

Pacific Coast Representative:
NORMAN W. CHURCH,
611-612 L. A. Investment Bldg., Los Angeles, Cal.

Southern California Distributors:
LOS ANGELES MOTORCYCLE CO.,
843 S. Spring St., Los Angeles, Cal.

Makers also of Yale and Snell Bicycles, Hussy Handlebars, Brazed Tubing, Bent Parts and Drop Forgings of Every Description.

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Thor

The World's Greatest Motorcycle

Why We Can Give You More for your Money

In our preceding advertisement, we showed the desirability of making all parts under one roof, from the standpoint of **service** and proper co-ordination of parts. We showed how the THOR, with its distinctive features, had a clear title to its name.

Now we want to present another side of the question—that of quality. Did you ever stop to think that the manufacturer who eliminates parts-maker's profits by making his own parts and accessories, can afford to put better material, more time and attention into his product than would otherwise be the case? That he can give you **more** for your money?

It is a fact widely known throughout the motorcycle industry that no manufacturers make more of their own parts than do the builders of the THOR.

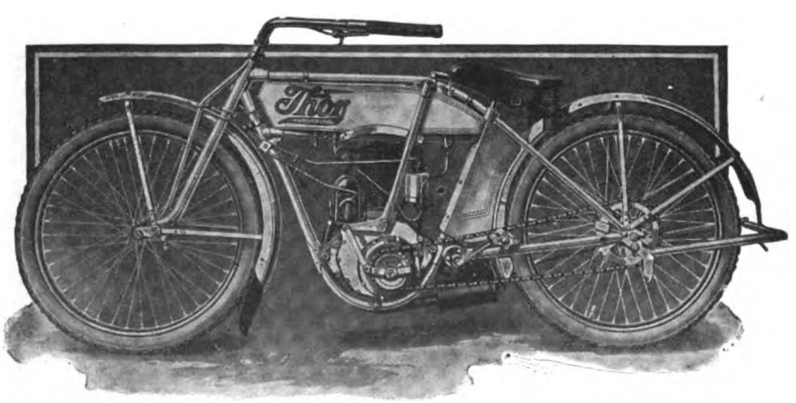
The THOR motor, with its roller bearing connecting rods, mechanical overhead intake valves with THOR ball and socket joints; the THOR carbureter, with its improved twin air adjustment and butterfly valve, the famous THOR undergeared direct chain drive; the THOR ball-bearing free engine clutch, continually running in oil; the THOR mechanical force feed pump, oiling crank case direct, and the celebrated THOR two-speed gear—these are some of the parts made in our enormous factory.

THAT is another good reason why you should carefully consider the THOR line, which comprises Model 13-M, a 4 h. p. single at $225; Model 13-W, a 5 h. p. single at $240, and Model 13U, a 7 h. p. twin at $290. Two speed and two-speed control for any of the above machines, $40 extra.

Get our art catalog, dealers, even if you're booked up for the season. You will be interested, nevertheless.

Immediate deliveries on all models

Aurora Automatic Machinery Co. Thor Bldg.



1307 Michigan Avenue Chicago Ill.

Model "13-M" $225.00

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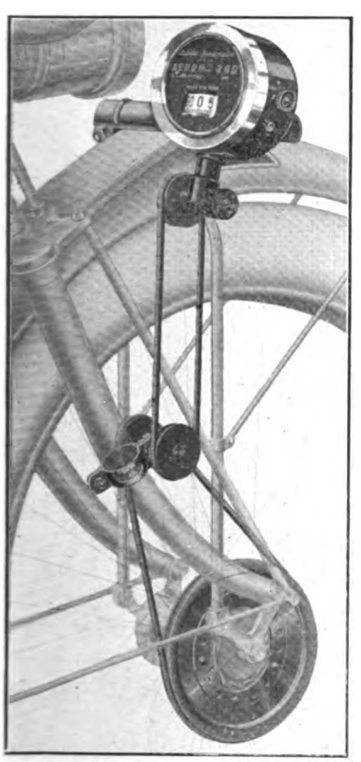
$12
Complete
Model D

75-mile speedometer; 100,000 mile season odometer; 100 mile trip register, which can be readily reset to any tenth of a mile without disturbing total mileage of season register, front wheel two belt drive complete with pulleys and brackets.

The New Stewart Motorcycle Speedometer

Magnetic Type

Showing the new Two-Belt Front Wheel Drive



HERE is the only practical motorcycle speedometer made. Just as accurate, reliable and complete as our most expensive automobile speedometers. Our Front Wheel Two-Belt Drive and manner of installation render it impossible for the speedometer to get out of alignment with its driving equipment, this because both instrument and driving equipment are attached firmly to parts that move in unison.

Is installed upon your mudguard or extension spring. As it thus is within the range of your headlight you can read it as easily at night as during the day. This is an exclusive feature not to be had with any other make.

Indicates accurately miles per hour, miles per day or trip; miles per season.

This special instrument is made on the famous magnetic principle. Over 95% of all the speedometers manufactured (for either motorcycles or automobiles) are now built on this practical principle.

For sale by dealers all over the world. Price $12 complete.

Write us for a handsomely illustrated catalogue which explains in detail, the many advantages and fine construction of this improved motorcycle instrument. This book is free. Write today.

The Stewart Speedometer Factory

1942 Diversey Blvd., Chicago, U. S. A.

SERVICE STATIONS:

Atlanta	Cincinnati	Indianapolis	New York	San Francisco
Boston	Cleveland	Kansas City	Philadelphia	Toronto, Ont.
Buffalo	Denver	Los Angeles	Pittsburgh	London
Chicago	Detroit	Minneapolis	St. Louis	Paris

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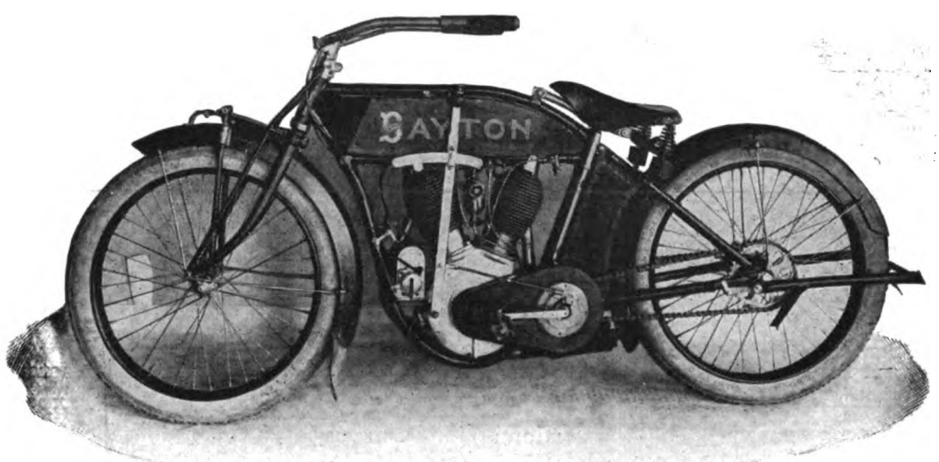
DAYTON

Have You A Share in DAYTON Prosperity?



1913 DAYTON—Free Engine Clutch, Chain Drive—7 h. p., $265; 9 h. p., $275

Every Dayton Dealer has started a successful Dayton Year.

The fine appearance of the Dayton, its sturdy construction and above all its remarkable performance in service have created a great Dayton Demand.

Now, the best part about the Dayton Demand is that **the dealer can fill it.** Our mammoth factory is "delivering the goods," and Dayton deliveries are prompt deliveries.

The Dayton offers an unequalled opportunity to the energetic dealer. Write us today.

The Davis Sewing Machine Co.

Dept. B, DAYTON, OHIO

DISTRIBUTORS

The Beckley-Ralston Co.
Chicago, Ill.
Central West.

J. W. Grady & Co.,
Worcester, Mass.
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Haverford Cycle Co.,
Phila., Pa.
Penn., N. J., Del. & Dist. of Columbia.

W. H. Grover,
Norfolk, Va.
Va., N. & S. Carolinas, Md.

W. E. & W. H. Jackson,
San Francisco.
Pacific Coast.

Dayton Cycle Co.,
Portland, Ore.
Oregon.

DAYTON

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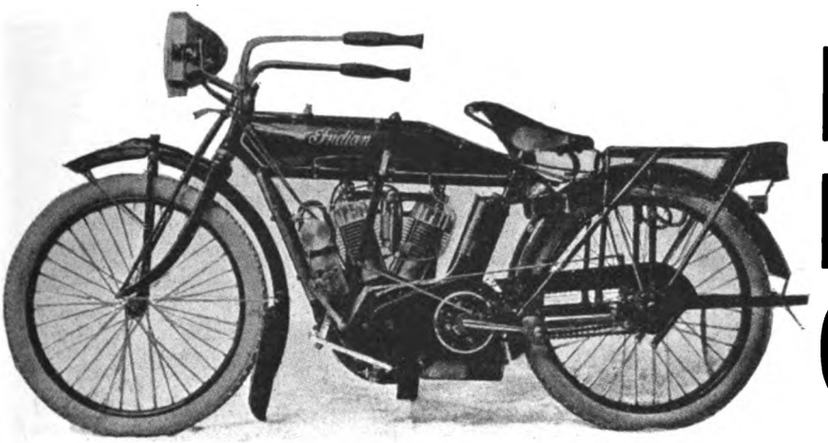
The New-Lite



Electric Lighting Outfit

IS NOT run by friction on the tire, but rather direct from the engine. It **does not** go out every time you slow up or stop for a minute. It runs whenever the engine runs, whether machine is standing or moving. It will furnish more current than can ever be used on a motorcycle, including the largest headlight, tail light, sidecar light, speedometer light, watch light, and will run an electric horn or anything electrical. It is right. We guarantee it.

Our popular outfit No. 2, which includes large 8-inch headlight with 18 c. p. bulb, fine tail light, generator wire, switch brackets, pulleys, belting, etc., all ready to install. We furnish pictures with which anyone can understand how to install system. Price complete, $30. We will be making deliveries for all machines soon, but are making deliveries now on Indian outfits. Orders will be filled in rotation. Send full amount or $10 deposit, and we will ship balance C. O. D.

New-Lite Mfg. Co., Newton, Ia.

Send all orders to Jenkins & Co., Sales Agents, Des Moines, Ia.

Jenkins & Co.'s up-to-the-minute catalog is now coming from the press. You have waited patiently holding your orders for us, and we have made it worth your while. You knew that when we advertised our prices were lowest. You could depend upon it, and we are not going to disappoint you.

Besides, we deliver free all orders amounting to $10 or over. If you do not need that much get some of your friends to order with you. We have listed everything for the motorcycle, including New-Lite Electric Lighting Outfit. Request one if we have not already your name.

Jenkins & Co., Des Moines, Ia.

Largest Exclusive Motorcycle and Supply House in America

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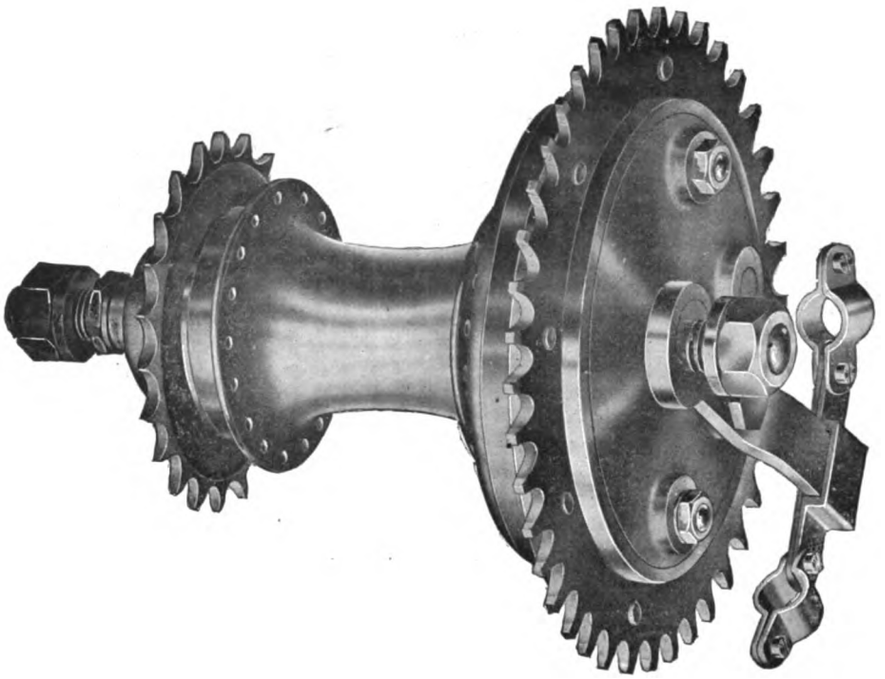

This Brake Was One of the Most Important Features of the Shows

It is exactly the same kind, type and design of a brake as is used in automobiles.

It is powerful enough to hold an automobile—or a motorcycle of several times the horse power of any now on the market.

It gives you everything the autoist has:—

Absolutely reliable control of your motorcycle under all conditions;—

Fool-proof—a brake that will not wind, bind or lock;—

A slight back pedaling pressure will exert a retarding force of a ton and a half.

You surely want to know about this newest motorcycle device.

Write for fully illustrated and descriptive literature.

The New Departure Mfg. Co. Bristol, Conn.

COASTER BRAKE LICENSORS

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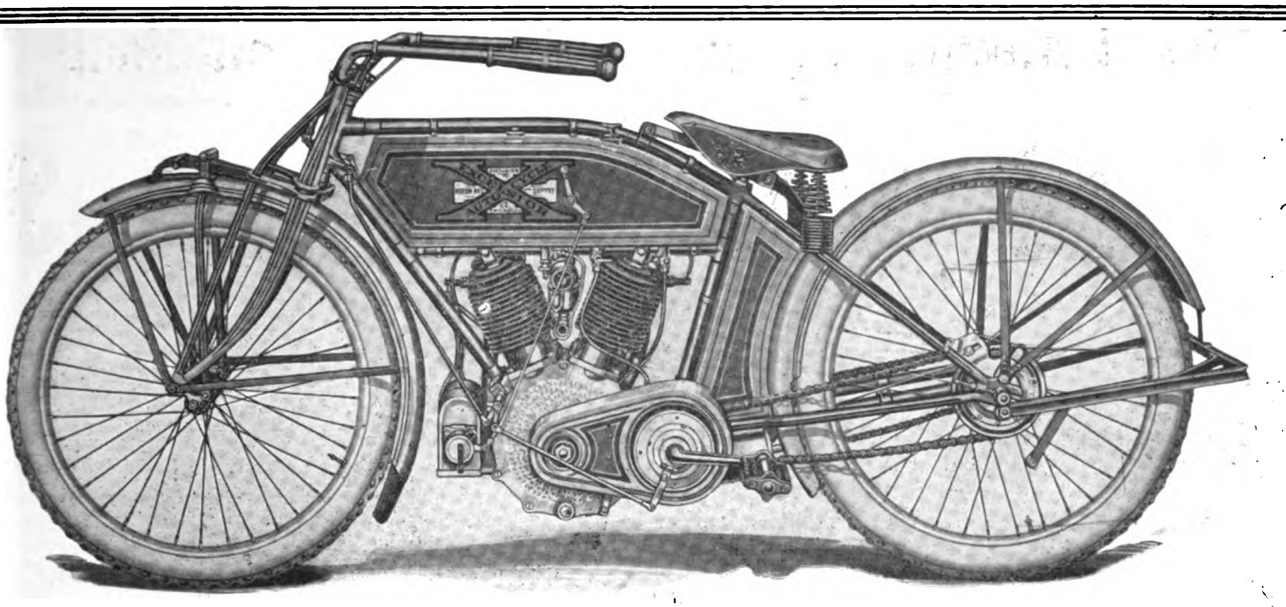

Why wait any longer?

Spring's in the air—all the great outdoors is calling to you, riders! Heed that call! Now is the time to be out in the bright sunshine, one minute purring smoothly up some steep hill, the next whizzing along silently and smoothly on the level. **Now** is the time to order your Excelsior. There's an Excelsior dealer in **your** town. Go to him and say, "I want the machine that broke every world's record from one to one hundred miles—I want the motorcycle that's as perfectly and easily controlled as an automobile—I want the 'bus' that's always on the job—the

EXCELSIOR AUTO-CYCLE

And the Big "X" certainly can climb

At the Portland, Oregon, Hill Climb held February 23rd, under the auspices of the Portland M. C., Roy Brown, on an Excelsior "7", covered the required distance in 33 seconds flat. Two other Excelsiors came second and third, respectively, their times being 33 3-5 seconds.

THE ONLY CATALOG THAT SHOWS THE MOTORCYCLE IN ITS EXACT COLORS.

The Excelsior Catalog is another example of Excelsior attention to detail. It reproduces faithfully our models and gives a concise description of the Excelsior's record-breaking points. Every rider is invited to send for a copy. It will be interesting to all, if only from an artistic standpoint.

Excelsior Motor Mfg. & Supply Co.

CHICAGO, ILL.

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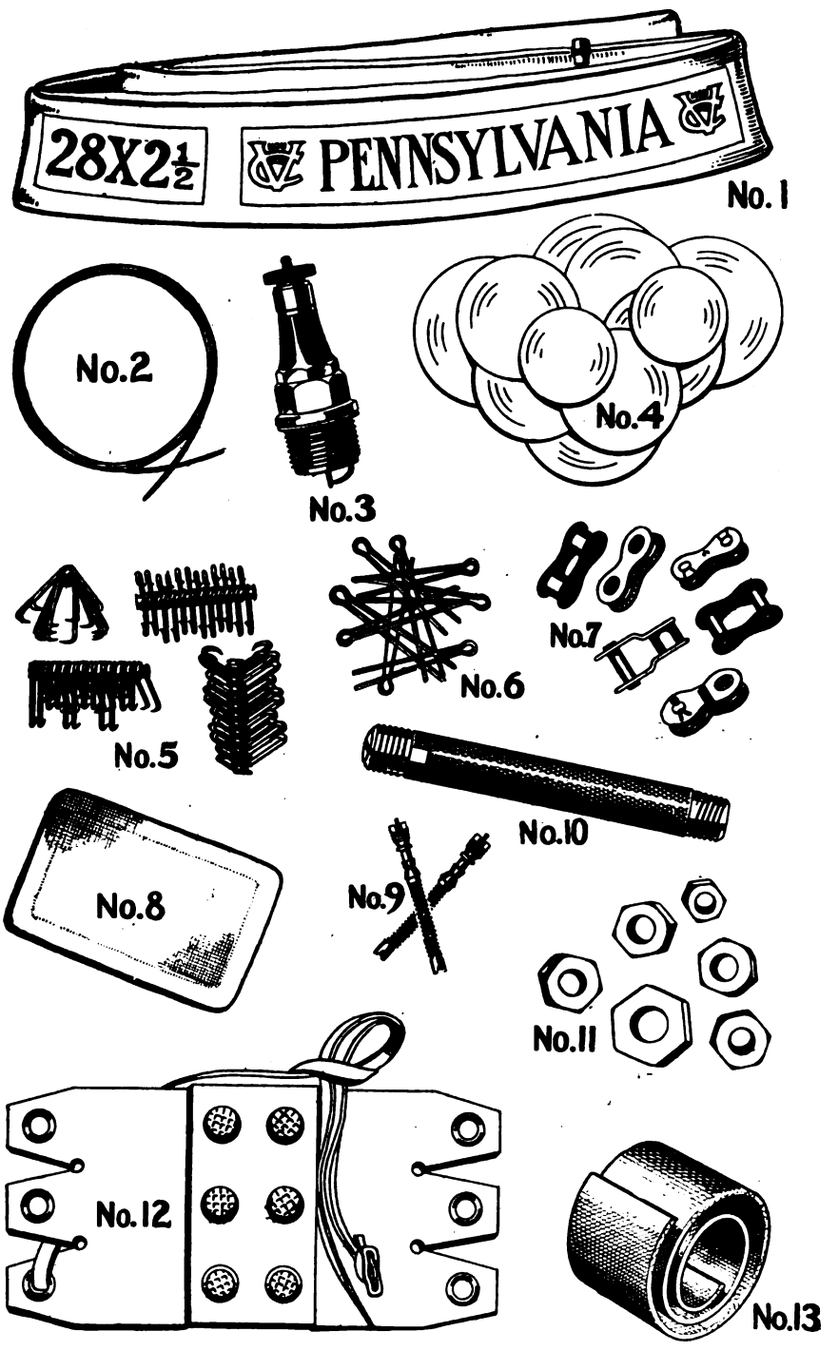
"The Emergency Friend"—Can You Beat This?

$7.80 VALUE FOR $5



No. 1—Pennsylvania Red Pure Gum Inner Tube $3.00

The finest Tube that can be made. Specify size wanted—if Butt End or Endless. (Will supply Goodyear—Diamond—Empire—or U. S. make at same price.)

No. 2—Bowden Control Wire..... .15

No. 3—Kingston Mica Plug..... 1.00

(Specify size wanted.)

No. 4—10 Cementless Patches, Assorted Sizes 1.00

No. 5—Meco Belt Shackles, Two Sizes ..... .40

No. 6—Spring Cotters ..... .10

No. 7—Coventry Chain Parts..... .80

(Highest priced Chain on the market.)

No. 8—Continental Inside Unvulcanized Patch ..... .15

No. 9—Schroeder Inside Valves.... .20

No. 10—Emergency Pedal ..... .30

No. 11—Assorted Sizes Nuts..... .20

No. 12—Genuine "Spartan" Tire Sleeve, Studded Tread ..... .35

No. 13—Pulley Tape..... .15

Give width preferred.

$7.80

Sent Prepaid to Any Part of the United States on Receipt of Remittance

Our 1913 Catalogue is the reference book of the motorcycle rider. It's free—send for it. We save you 25 cents on every dollar spent with us.

Motor-Cycle Co-Operative Co.

473 Woodward Avenue
Detroit, Michigan

When writing to advertisers, please mention MOTORCYCLE ILLUSTRATED.

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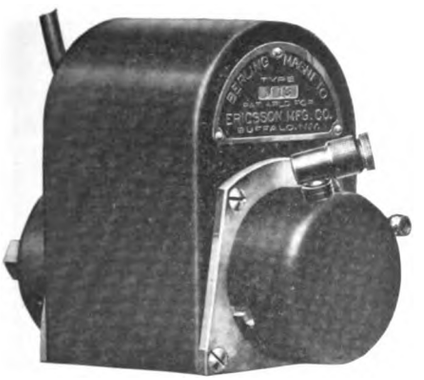


The Berling Magneto

Your motorcycle is bound to be unsatisfactory unless equipped with a thoroughly dependable ignition system.

No motorcycle can be more dependable than its magneto—for if the magneto fails the machine is out of commission.

THE BERLING MAGNETO

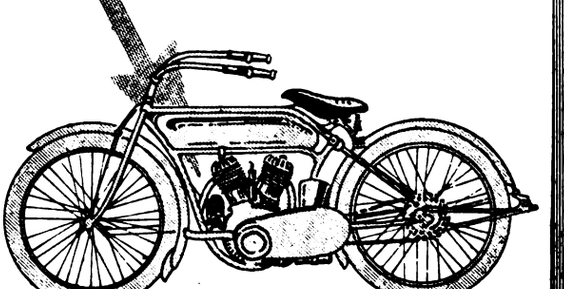
is a high tension, high efficiency magneto that will furnish perfect ignition. It is water-tight, oil and dust-proof and delivers a "fat" spark first, last and all the time under any working conditions.

THE BERLING MAGNETO is now included as part of the regular equipment by leading motorcycle manufacturers. Buy a motorcycle equipped with a BERLING MAGNETO and be sure of efficient and dependable ignition.

Ericsson Mfg. Company

1115 Military Road, Buffalo, New York

When buying a motorcycle, insist that it be equipped with the BERLING MAGNETO.



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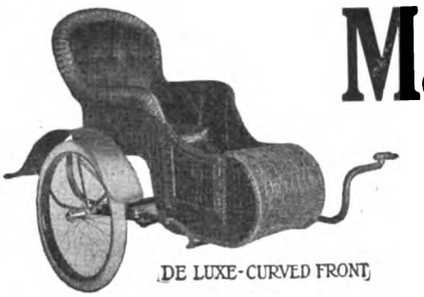
Majestic Sidecars

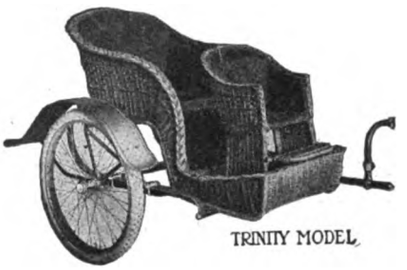
First on the market
Still first on the road



DE LUXE-CURVED FRONT

$90.00

Only makers in the world using all Drop-forged Steel Attachments and Fittings



TRINITY MODEL

$75.00

The Value of Experience

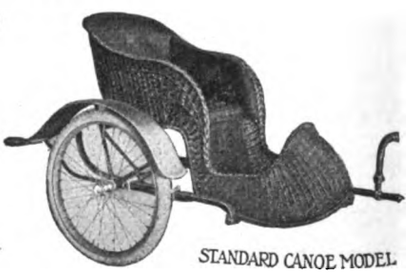
Many are the things we have learned by our experience as practical builders of Sidecars, and by a gradual process of elimination we have weeded out every undesirable feature and retained every comfort, insuring every life-prolonging characteristic that our ripened experience taught us was good in the building of Sidecars. That is why we say that MAJESTIC SIDECARS are as near perfection as human ingenuity, experience, together with time-tested and quality proven materials can bring them.

The Majestic "De Luxe" Cars are the handsomest models ever produced. Special double braced chassis. Long velvet springs. Substantial bodies with high, luxurious backs, storm apron and foot mat. Built for those who want the best in design perfected by long experience. The "Trinity" is for the whole family, and has a detachable child's seat. The "Standard" and "Standard Canoe" are high-class cars at popular prices. All attachments are steel forgings. Special attachments for spring frame Indian.

DE LUXE-CANOE FRONT

$90.00

We offer dealers the strongest proposition in the field today. The name MAJESTIC is generally enough to sell a Sidecar. The easiest way to sell a Sidecar is to say, "It's just like a MAJESTIC." Get our booklet and proposition.



STANDARD CANOE MODEL

$65.00

The Majestic Mfg. Co.

36 Southbridge Street, Worcester, Mass.

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OFF TO FIND A PARSON

An Old Story In A New Setting

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United States Tires

The Tires that will cut down your tire expense

Suppose your gasoline bills were running too high, and you determined to find a way to reduce them. The natural thing for you to do would be for you to talk the matter over with several of your experienced rider friends.

Each one would probably give you some scheme that he had worked out for himself. Combining these ideas would be certain to make a substantial reduction in your gasoline expense.

The four separate factories of this company have spent years in devising methods of reducing tire expense.

Today the rider who uses United States Tires gets the benefit of all their experience and all these money saving ideas, combined into one tire.

United States Tire Company-New York

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MOTORCYCLE ILLUSTRATED

51 CHAMBERS STREET
NEW YORK CITY

THURSDAY, MARCH 6, 1913

TEN CENTS A COPY
ONE DOLLAR A YEAR

F. A. M. APPEAL TO NEW YORK LAWMAKERS

Alexander Schwalbach, Representing Legal Action Committee of Federation, Starts State-Wide Campaign to Prevent Adoption of Undesirable Motorcycle Regulations.

MOTORCYCLISTS throughout New York State will welcome the announcement that there is to be no lapse of F. A. M. activity in the movement to prevent passage of drastic motorcycle regulations by the State Legislature in connection with proposed automobile amendments, and that in the absence of Chairman Sauer, of the Federation Committee on Legal Action, the campaign to protect the interests of riders will be carried on by Alexander Schwalbach, one of the best known cyclists in the metropolitan district. Before leaving New York on his F. A. M. lecture tour Mr. Sauer placed the matter in the hands of Mr. Schwalbach, and with characteristic promptness the latter entered upon the task of convincing the State lawmakers that the references to motorcyclists in the amendments under consideration are not justified. He has already brought the motorcycle situation to the attention of several State senators and assemblymen and obtained pledges from these members of the lawmaking bodies that they will oppose the passage of a bill imposing a tax upon motorcycles in the Empire State.

Mr. Schwalbach is also making arrangements to bring the matter in person to the attention of Governor Sulzer, who is known to have a broad policy with reference to all outdoor sports. By way of supporting Mr. Schwalbach in his appeal, motorcyclists throughout the State are requested to communicate with their senators and assemblymen at once, making known their objections to the proposed regulations and asking that motorcycles be eliminated from the motor law amendments. If such action is taken without delay it is practically certain that the references to motor two-wheelers will be stricken from the bill.

"We believe that it would be unfair to impose a tax upon New York motorcyclists at the present time," said Mr. Schwalbach, "in view of the fact that the State has a comparatively small number of riders and that the wear resulting to the roads from their mounts is insignificant. There are, roughly speaking, 9,000 motorcyclists in New York State, and it must be admitted that they represent a very small percentage of the State's population of about 9,000,000. If a tax of, say, three dollars were imposed on each motorcyclist the total income to the State would be small and little good would be accomplished through this revenue, but the strain placed upon the individual rider would in some cases amount almost to a hardship. Motorcyclists in general are of the middle class, and we do not feel that they should be called upon to pay a tax for exercising the only means of recreation many of them have. At no stage of the game can the motorcycle be brought under an automobile classification, and this is practically what will be done if the motor two-wheelers are included in the contemplated amendments.

"There is no practical reason why the State should desire a new policy with reference to motorcycles at this time, and if the situation is properly called to the attention of the senators and assemblymen by the riders of their respective districts we are firmly convinced that there will be no change."

Scene near Richmond, Ind.
Chas. A. Tangeman in the saddle

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The ALL SEASON SIDE CAR

by MEEDS D. HULSE

MANY of my friends insist that my record as a sidecarrist is out of the ordinary and that I am entitled to credit for getting more actual value out of my outfit than the average motorcyclist, but I must say that I have never viewed my achievements in that light. I simply lay my plans for a trip and then buckle down to it without ever thinking of such a thing as failure. That's all there is to it. True enough, I base all my calculations on practical experience, and that may account for the fact that I have been able to do some things that would have balked most tourists, but the same opportunities for studying the demands of road work are open to every owner of a machine and sidecar. I have never seen a road where a wheel could find traction that I would not tackle with my outfit, and I never expect to see one. That's a broad statement, but I am ready to stand by it.

Only two weeks ago, for example, I struck a New York state road where the mud was so deep that it slopped into the sidecar, and for several miles the wheels of my motorcycle were buried almost to the hubs. This was one of the worst trips I have ever experienced, and I will be frank enough to say that before I was through with it I had to pay a farmer for hitching a horse to my machine and towing it over a mile. Some idea of the depth of the mud may be gained from the statement that an automobile which had passed over the road ahead of me had sunk so deeply in the mire that its curved front axle ploughed a perfectly formed trough in the center of the road.

AN ALL-SEASON ENTHUSIAST.

My machine has not been out of service so far this winter and unless we have a blizzard I do not expect to lay it up for more than a day now and then. I do some solo riding, but a heavy percentage of my mileage has been covered with the sidecar, and my wife and children have become so accustomed to the latter that they think no more of jumping in for a 75 or 100 mile trip than they would of boarding a trolley car for a ride of five blocks. There are several reasons for this confidence. In the first place, we have never had an accident and we have always reached our destination on schedule time; secondly, my passengers have never been held up along the road while I tinkered with my motor or with tire or tube troubles. It is easy to see why they look upon our motorcycle and sidecar as a most dependable and comfortable outfit.

I am now using a 1912 Indian two-speed seven, and my sidecar is a Simplex of special pattern. To date my machine has covered 13,500 miles and the sidecar has 6,600 miles to its credit. Reference to the photographs will show that I utilize a large dust blanket, a folding leather top, side curtains and a large mica window in the front curtain for the benefit of the passenger. I am not exaggerating when I say that my wife is as comfortable when thus protected on a stormy trip as she would be in any taxicab.

ABOVE appears a striking photograph of the sidecar outfit used by Meeds Hulse and described in his article on this page. The sidecar carries several special fittings designed by Mr. Hulse, among them the high metal dashboard which, in conjunction with the lap robe, fully protects the passenger from dust and mud. Hulse is able to make fifty miles an hour on the road with the sidecar and its two passengers, and he has never yet failed to reach his destination, regardless of road conditions.

ATTENTION TO DETAILS.

The motorcyclist who desires to make the most of his sidecar outfit will do well to pay strict attention to details. It is always the little things that count. They do not cost much and they can be easily attached, as a rule, but they assume the utmost importance when a machine is to be used in all kinds of weather. I never go out without a full supply of extra parts for the motorcycle, but I rarely have to depend upon them. If I discover that a certain part has just about lived its life of usefulness I don't wait for it to give me trouble on the road; I replace it at home and thus avoid annoyance later when I would not be so well equipped to cope with it.

I carry a regulation motorcycle headlight and gas tank and two smaller electric headlights on the sidecar, and these meet all my requirements. To supply current for the sidecar lighting system I use a 6-volt storage battery, which is placed in the carrying-case at the rear of the car. I also use a dependable tail-lamp and a 3 c. p. light over my speedometer. I have a Connecticut coil box that is hooked up with the storage battery and grounded so that the coil is ready for business at all times when the switch is on. As a result no one can touch my machine or sidecar without getting a shock that will be remembered. I have had considerable trouble through curious persons tampering with my outfit when it was left in a garage or standing at a curb, but I must say that no one ever bothers it these days. As soon as they put a finger on it they discover that it is not meant to be meddled with. This is a hint that some of the boys may profit by.

FOR TWO-PASSENGER SERVICE.

I have a small seat that is easily placed in position when I need to carry a second passenger, and I find that there is plenty of room in the sidecar for it. On many occasions in good weather when my wife is unable to accompany me I seat one of the children in the sidecar and make quite long trips without the slightest trouble. It may surprise even experienced sidecar travelers to learn that I have driven forty miles with one of my youngsters sound asleep on the sidecar seat. There was not sufficient vibration to disturb him, and he was almost as safe as he would have been at home in his crib. I never drive for speed when I have the sidecar attached to my machine, but it must not be inferred from this statement that I lose any time in getting over the road. When it becomes necessary I can push the miles behind me at the rate of 48 to 52 an hour, with the sidecar attached.

I have driven my machine with sidecar from

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New York to Boston in 9½ hours, with only one stop, at Springfield, for dinner. I have been in Buffalo three times since the opening of the 1912 riding season and in each instance the run was made in two days. I have encountered some bad weather on these trips and on other business journeys into New York State, but I have always plugged through in some way. Since the up-state roads have been covered with ice and snow I have found it necessary to use Weed anti-skid tire chains, and I must say they have been of great service to me. No matter how smooth the ice may be I can make headway, and all in all I find that winter trips give me less trouble than those of the summer.

A WORD FOR FROZEN ROADS.

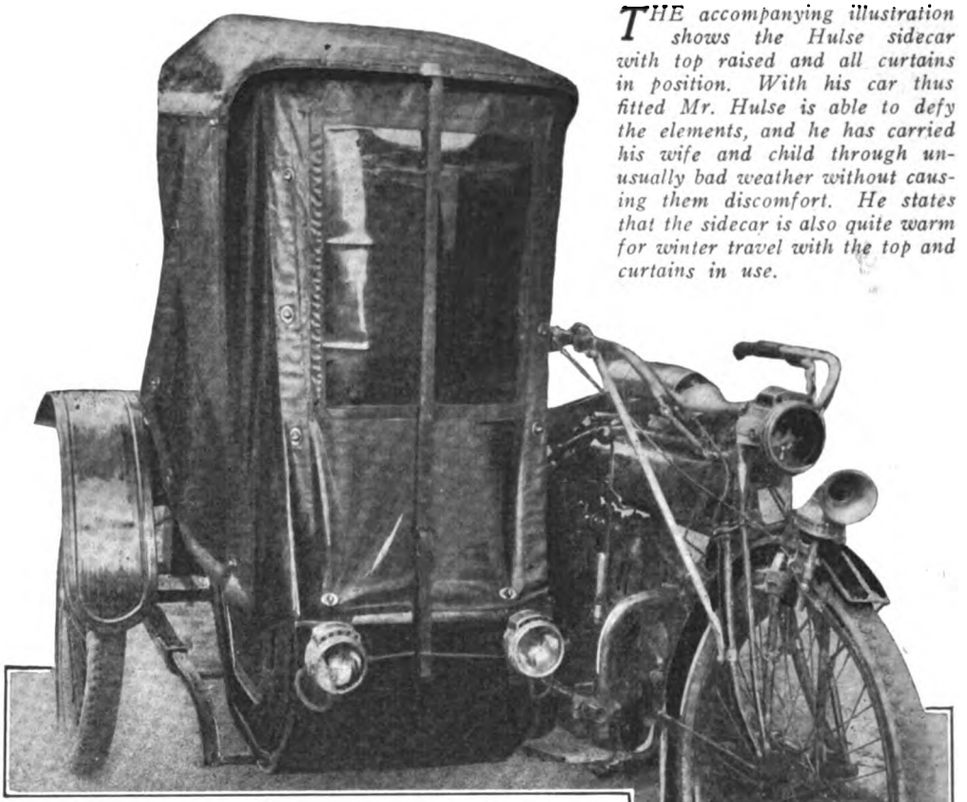
Of course a badly rutted road that becomes frozen in that condition will give the sidecar traveler some anxious moments. It will be found impossible to keep the wheels in the ruts, and this, perhaps, is just as well, as it saves tires. Nothing will ruin a tire more quickly than driving in ruts. No matter how careful the driver may be he cannot prevent the tires from climbing up on the sides of the rut, and this continuous chafing mile after mile plays havoc with the casings. The same effect is obtained when riding in street car tracks.

As long as the roads are hard I can get over them at a good clip, and when they are soft or icy I simply attach my tire chains and keep on moving. I combine business with nearly all my motorcycle trips and in this way the returns are doubly satisfactory. On some trips in winter weather I probably could cover my territory with slightly lower expense by riding in by a train, but I would be deprived of the healthful outdoor exercise, the crisp fresh air and the satisfaction of getting over the ground on my own power. I am a firm believer in the sidecar as a health producer. My wife's trips in our outfit have been highly beneficial to her, and the children are not subject to all the petty little ills of other youngsters during the winter. They are accustomed to fresh air and plenty of it in all seasons, and they have our sidecar to thank for it.

THE LIGHTING SYSTEMS.

Too much importance cannot be attached to the lighting systems on a motorcycle and sidecar. The lamps should be dependable, above all things, and I consider it advisable to carry both the gas and electric systems. I use a 6-volt 40-ampere K. W. generator to keep the battery stored. When I am burning all my lights I have to draw part of the current from the battery as the generator does not supply enough to keep all the lights going. When a tank and regulation gas headlight are used the rider should examine the burner frequently and see that it is always in condition. Should it become cranky on the road at night difficulty will be experienced in tinkering it into shape again.

As might be expected I have had quite a few interesting experiences and on more than one occasion I have had the natives in some upstate village crowd around me and my sidecar outfit in amazement when I stated that I had covered a certain stretch of road that they knew to be almost knee-deep with mud and slush. Naturally, the motorcycle and sidecar have had to go through some tough trips and they have the honor marks of faithful service upon them now, but I do not believe I would part with them unless I could duplicate them.



THE accompanying illustration shows the Hulse sidecar with top raised and all curtains in position. With his car thus fitted Mr. Hulse is able to defy the elements, and he has carried his wife and child through unusually bad weather without causing them discomfort. He states that the sidecar is also quite warm for winter travel with the top and curtains in use.

Not long ago I ran out of gasoline and was obliged to operate my motorcycle on a paint oil called Tuberline. It brought me home after a fashion, but I could not start my motor the next morning until I had cleaned the tank. Such experiences as this are accepted with a smile by the experienced sidecarrist. If he has the proper spirit he wants to land his passenger at the required goal and he will not permit any ordinary trouble to stop him.

I am driving my machine with the sidecar nearly every day, and often come in at night with the outfit, myself and my passenger covered with a layer of mud and ice, but the exhilaration of sidecarring over winter roads is worth all it costs. At least that's the way it strikes me and I've been at it long enough to have a few inside opinions.

MILWAUKEE CLUB ACTIVE

ABOUT forty-five members were present at the annual election of the Cream City Motorcycle Club, of Milwaukee, Wis., held at the club rooms February 24. During the meeting a committee was appointed to make arrangements for Director Sauer's visit on April 22. A building at 538 Muskego avenue which is now being remodelled will be occupied by the club on April 1, and the members are highly pleased with the new headquarters. An entrance to the basement will permit riders to enter the building on their machines without dismounting. The new staff is as follows: F. A. Bremer, president; A. Weisig, vice-president; A. Tank, secretary; A. Eggelbrecht, treasurer; F. Beanesch, captain, and A. Czarnecki and P. Widemeyer, lieutenants.

BUFFALO CLUB PROGRAMS

ANOTHER lecture in the series of practical mechanical talks being conducted by the Buffalo (N. Y.) Motorcycle Club was given at the last regular meeting. Mr. Houten, of the Diamond Rubber Co., was the speaker, and his talk centered upon the general construction of tires and the history of tire manufacturing from the time the rubber leaves the tree until it is turned out at the factory.

The Buffalo Club visited the Lockport M. C. on Wednesday, March 5. A banquet and smoker was held in the evening. On February 26 the club conducted a card party for the members, and suitable motorcycle prizes were awarded the winners.

TORONTO DOINGS

IT was decided at the recent election of the Wanderers Motorcycle Club of Toronto to hold the office of president open for a short time. W. Self, now holding that office, is a member of the directorate of the C. M. A. and it is the policy of the club that its officers shall have no other official position in motorcycle circles. H. W. Kipp was elected vice president and B. H. Bramble, secretary.

LAST CALL FOR DEALERS

NATIONAL SECRETARY GIBSON is issuing his last call for dealers who wish to register their shops and have them placed in the revised list to be published soon in an F. A. M. booklet. Another list will not be published until the spring of 1914, so it behooves dealers to have their names in the list which the secretary is now preparing to have printed.

A RELIABILITY run of 750 miles from Paris to Nice via Dijon, Lyons and Marseilles will bring French motorcyle experts together March 13-16. The program is in the hands of the A. C. F., and it will be noted that the riders will be called upon to cover nearly 200 miles a day.

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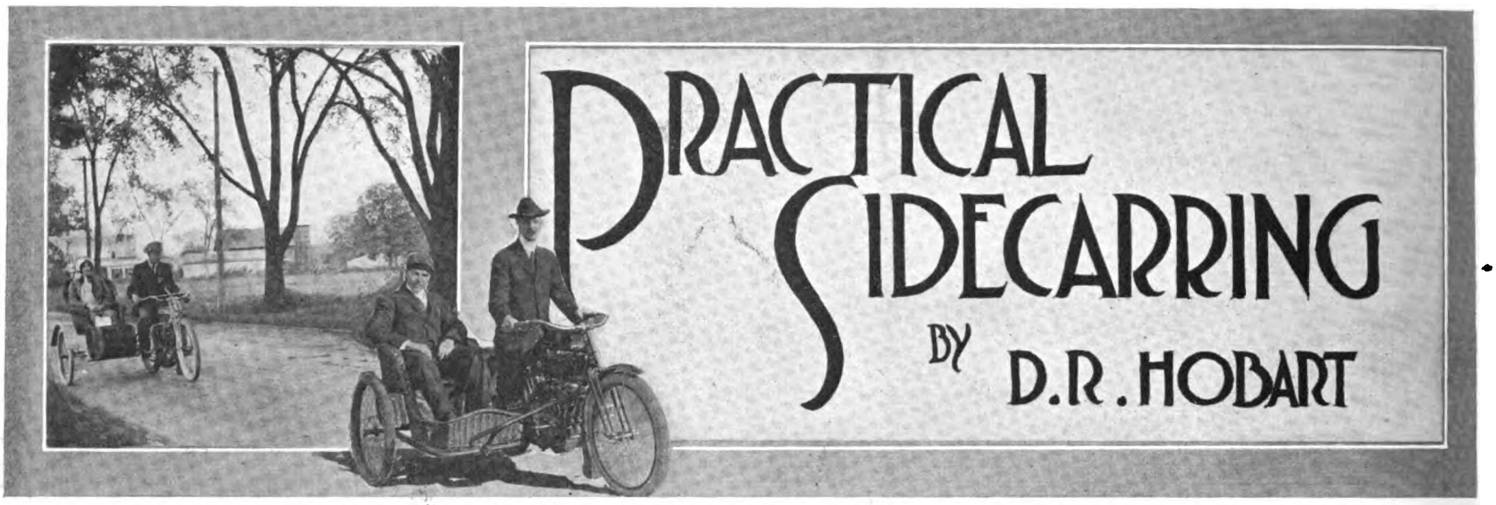


PRACTICAL SIDECARRING

BY D.R. HOBART

I CONSIDER it only fair to preface my suggestions for "Practical Sidecarring" with the announcement that the article which follows is intended for those riders who desire to know the full joy of travel with a companion, and for whom occasional discomforts simply add spice to an outing. If you, gentle reader, are classed among the boulevardiers who refuse to take chances on country roads, you may profit by the above warning and skip along to another article; but I don't believe you will, for in these days the sidecar owners who confine themselves to city and suburban streets are comparatively few. "A pleasure shared is a pleasure doubled," according to the old adage, and for me sidecarring has always been pleasant, even though it has been featured at times by hard work.

SELECTING THE MACHINE

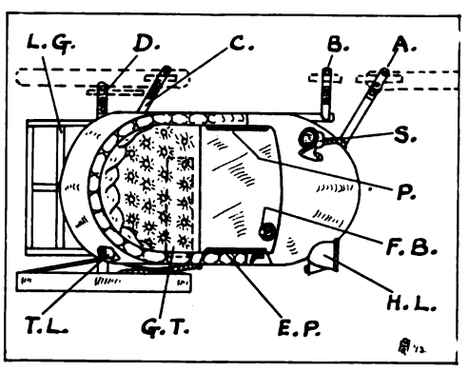
Naturally, the first question arises over the selection of the motorcycle. This will generally have to be of 6 h. at least, unless a two-speed gear is fitted. In the latter case a 5 h. twin may be used, but it is better to have the big twin—and a variable gear also, if you can get it. As to transmission, the superiority of either the belt or the chain is not yet established to my satisfaction; I have driven a 6 h. V-belt twin with a medium weight car over roads called "fair-to-poor," and climbed stiff hills by nursing along with alternate opening and closing of the throttle, and there was no slip of the belt noticeable. The chain-driven machine belonging to my running mate went up the hills by slipping the clutch, and had a more powerful motor than mine at that. This is but one trip and proves very little, and there is a great deal to be said in favor of either type of drives. To a rider unfamiliar with the V-belt, I suggest a chain drive for sidecar work, but I cannot recommend the flat belt at all. As fitted to the average motorcycle, the flat belt does not seem to be wide enough to carry the additional load, and has the disadvantage of slipping when the work gets a trifle too heavy instead of buckling down to it as the V-belt and chain do. I have seen a few city outfits with flat-belt drives and they seemed to be doing finely, but on country roads I prefer to leave this form of transmission to the other fellow.

SOME SIDECAR DETAILS

The sidecar itself should be sturdy and comfortable. If it is only a question of short distance touring, a light wicker body with a low front or "nose" and lined with some good stout material to keep out the dust, makes a satisfactory and inexpensive rig. There is little need nowadays to examine closely sidecar frames of the standard makes as they have been tried out and found satisfactory, except when driven like "Sam Hill" over bad roads or hurtled across railroad tracks too frequently. The effects of hard driving are felt by the motorcycle as well as the sidecar, and the highway incinerator faces a repair bill on both units of the outfit.

For long tours the torpedo or canoe body sidecar of metal or wood is nearly ideal when attached to a 7 or 8 h. twin. Dust from the front wheel is kept away from the passenger, and the wind resistance is reduced by the forms of these bodies. Bodies of similar shape in wicker, when well lined, are quite satisfactory, but lack the dust-proofness of the panel types. Whatever the nature of the sidecar body, a storm apron should be carried and a lap-robe (not a canvas sheet) is a necessity. Luggage can be carried on a grid at the back of the frame, and the bodies usually have pockets for small articles, or space under the seat for tools. There is an arrangement which takes in most of the articles required on a trip, shown in the figure below.

In this illustration A is the front connection attached to the down tube of the machine, and B is the second connection, attached to the lower part of the same tube or to one of the crankcase bolts. C is the third or seat-post connection and D the rear stay or axle connection. P is a pocket in the side of the body for miscellaneous personal articles, and S shows the speedometer in position where it can be read by either driver or passenger. E-P is the side door with pocket similar to P, for maps, etc. F-B is the foot-bell, and G-T the gas-tank on the frame. Under the seat is a tool compartment, access to which is gained by lifting off the cushion. The headlight is shown at H-L and has a red lens throwing light to the rear. If the latter is not fitted, the tail light, T-L, is used. L-G is the luggage grid at the rear for bags, etc. Anything in the nature of slickers, etc., can be stowed in the "nose" of the body at the front. The cycle parts are shown dotted.



When connecting the sidecar to the machine, there are three main points to be noted. These are: horizontal alignment, vertical alignment, and riding balance. Horizontal alignment consists in having the sidecar wheel and the motorcycle driving wheel parallel to each other horizontally, and this can be done with straight boards and a string. Put on the clamps and have the wheels approximately vertical when setting up the connections, then place the outfit facing a wall or fence. Take a straight board and lay it along the cycle wheel, and mark the point where it touches the wall. Have a friend do the same with the other board against the corresponding part of the sidecar wheel.

Measure the distance between the ends of the boards and compare this with the distance between the marks on the wall; when the distances are the same the alignment is correct. With the machine on a level surface put a plumb line on each wheel, and adjust the connections till both wheels are vertical and parallel. This gives the second or vertical alignment. Riding balance means that the operator is able to release the handle-bars while traveling slowly on the level without having the outfit run to either side. To obtain this set the sidecar wheel hub approximately on line with the rear hub of the machine, and if the outfit tends to turn to the right shift the car forward. If it tends toward the left, shift the car to the rear.

With a sidecar fitted as above the tires are worn evenly, which is not the case when the outfit is out of alignment; the strains on the machine are reduced to a minimum, as the sidecar is merely driven along by the motorcycle, and not carried by it, and steering is easier.

THE MIXTURE AND THE THROTTLE

As a heavier load is carried when the sidecar is attached, the setting of the carbureter used for solo work will rarely allow the motor to develop its full power, and the proper mixture will be richer than when the motorcycle is ridden solo. The setting of the carbureter will have to be gone over the same as at any other time, but the adjustments to the jet and auxiliary air valve will have to be made when the

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outfit is on the road, a stand adjustment being rarely satisfactory. On starting off, a slap-dash method of dropping in the cluth will swiftly cause trouble in the nature of a stalled motor, or actual breaks in the transmission or motor parts. An outfit should be started on just sufficient throttle to move it when the clutch is first engaged, and while the clutch is manipulated with one hand the throttle should be operated by the other. As the outfit gathers momentum, the clutch should be fully engaged and the throttle given the desired final opening for running. The "throttle-dumper" is as destructive to a sidecar outfit as the "clutch-banger," and apart from the damage they both do to the machine they are unpleasant as drivers from the viewpoint of the sidecar occupant.

BRAKES AND BRAKING

Probably the most important item in the make-up of a sidecar machine is the brake. I regret that I cannot say *the brakes,* but a single coaster is often the sole equipment of this nature fitted. Having an extra load it behooves the rider to allow ample space in which to pull up, almost double the space allowed when the same motorcycle is ridden solo, and from that distance upward according to the power of the coaster brake fitted. It is asking too much of a small-hubbed brake to pull up a heavy sidecar outfit frequently, and a failure may come at a critical moment. For this reason alone there ought to be a big band-type brake, at least, and a reserve or emergency brake also, each being operated independently on all motorcycles for sidecar use. One might even go a step further, and fit a brake to the ordinarily free-running sidecar wheel, but any fitting of the latter should provide that the cycle wheel got at least two-thirds of the braking effort and the sidecar wheel only the remainder; otherwise some fancy skidding will be indulged in.

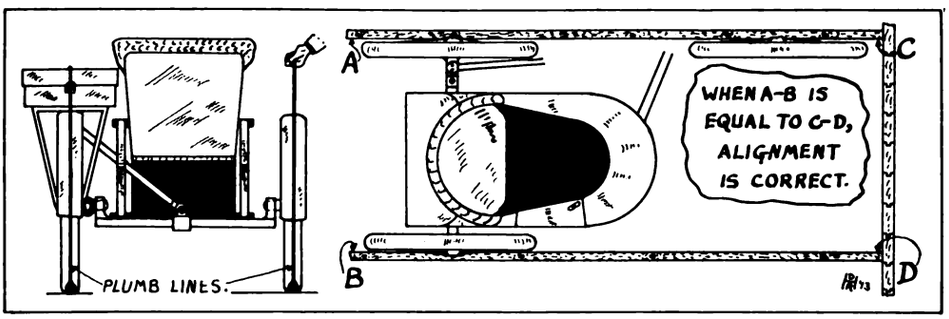
DRIVING KINKS

Sidecar driving is somewhat different from solo or tandem motorcycle riding, as far as the steering is concerned. Turns to the right must be taken by swinging the handlebars across as in steering an automobile, while leaning in is, of course, useless. A rather strong turn of the front wheel is necessary, as the sidecar wheel tends to travel in a straight line and this tendency must be overcome. Left turns, on the other hand, must be made more gently, as otherwise the sidecar will pivot round sharply, and only a violent swerve will set the outfit on the right course again. It is amusing to see a rider on his first trip with a sidecar shoot all over the road when making a left turn, but very little practice will enable anyone to drive a sidecar well.

In driving on rutty roads, keep the motorcycle wheels in the ruts in preference to that on the sidecar. It is easier to break down the sides of a rut when there is the "push" of the driving wheel back of the front wheel, but the sidecar tire merely rolls along, and there may be some trouble getting it out if the rut is deep and the ground hard. Naturally, if all wheels can be kept out of the ruts, the better for the whole outfit.

LIGHTING POINTERS

The usual practice of having one front headlight and a red lens at the rear is suitable only for city driving, and may be the cause of an accident on a dark country road. The driver of an oncoming vehicle, seeing only the single headlight may think it represents only a solo motorcycle and may not give enough room to pass. An overtaking driver may also think that he can pass on the right (assuming that it is only a motorcycle), and you can imagine the rest. Therefore, take a leaf out of our British brothers' sidecar book, and fit two headlights, sufficiently far apart to mark the full width of the sidecar outfit. One of these will naturally go on the lamp bracket of the machine, while the other will be placed as far to the right of the sidecar body as possible without danger of being knocked off. As to rear light, one should be on the mudguard, and a red lens from the sidecar light toward the rear will do for the other.



Diagrams Showing Methods of Plumbing and Aligning Motorcycle and Sidecar Wheels.

The arguments of the rival camps for front or rear drive for the speedometer need have no weight with the practical sidecarist, as the best position for this instrument is on the sidecar body where it may be driven from the sidecar wheel. It would be well, also, to fit a horn or foot-bell on the sidecar, so that the passenger can do the signalling and thus relieve the rider. I like the idea of the foot-bell. The grunt or squeak of the automobile and cycle horn is familiar nowadays, and often fails to attract attention, but the cuckoo chime of the bell will direct attention by its novelty, although it was really the predecessor of the horn in the days of push-bikes and steam carriages. The signal is pleasing, and the bell always sounds, which is more than can be said of some other devices.

PLAN BIG RELAY EVENT

Des Moines M. C. Riders Would Have Message Carried from New York to Frisco by Squads of Motorcyclists.

PLANS have been taken up by the Des Moines (Iowa) M. C. for a coast-to-coast relay program with a view of having a message carried from New York to San Francisco, and efforts are now being made to interest clubs and individual riders along the main transcontinental touring routes. No route has been mapped as yet and it is the intention to outline it in such a way as to include the cities and towns in which the most dependable riders are obtainable. It is suggested that the trip should be made in relays of 50 to 100 miles and that at least three riders should compose each squad.

After relay stations had been located on the trip across the country it would be the aim of the club to have the different sections of the route patrolled at regular intervals and in this way it would be possible to obtain fairly up-to-date information on cross-country roads at any time. The plan has many favorable points and there are indications that it will meet with approval.

TOURING IN EUROPE

ANOTHER American to invade England by motorcycle is Arthur C. Hanifin, an architect of Chicago. He has just arrived in England, and with him he has one of the new 1913 Yale twins. The past week was spent in riding over Ireland, and he reports that his machine has shown speed on the road equal to any of the English machines that he saw, and superior hill-climbing ability.

Hanifin embarked on this trip with no previous experience with motorcycles. He had never ridden a machine, and knew nothing of their construction. His only information on the subject was gained from a motorcycle handbook that he read on the steamship while crossing the Atlantic.

His machine was shipped from the Yale factory at Toledo to New York, and from there loaded direct on to the steamship, so that it was not uncrated until he reached Liverpool. In spite of this, however, Hanifin reports that he had no difficulty whatever in learning its manipulation. The only difficulty he has had, was a little stiffness when the engine was cold, due to the use of too heavy cylinder oil, and the cold, damp English mornings.

STATE ACTIVITY

PRESIDENT PATTERSON has received announcements to the effect that two States will hold motorcycle conventions this spring, and reports show that motorcyclists of other communities are rapidly perfecting their state organizations.

ENGLISH motorcyclists and designers are waging a merry war over the desirability of steel cylinders as against the cast-iron products.

LOCATING THE LOAD.

Stout Tourist—"You'll have to get off and walk a bit, Willie. The machine can't climb this hill with such a heavy load!"

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SIDECAR MECCAS of FLORIDA

by WALDON FAWCETT

WHILE motorcyclists have by no means made the most of their winter touring opportunities in Florida up to date, there are encouraging indications that the inducements held out by this state will soon be fully appreciated and that every road and place of interest in it will have its quota of the competent single-trackers. This implies that sidecar interest will be developed in leaps and bounds, for outside of California it is doubtful if there is another state in the Union so admirably suited to sidecar travel. Where smooth roads, climatic conditions, scenery and amusement resorts all combine to attract the motor tourist it is obvious that the sidecarrist will find little to complain of.

And, speaking of road conditions, it should be mentioned at the outset that Florida has lately offered new and strong recommendations to the motorist in the admirable system of roads which she is rapidly developing. Indeed, in the matter of highway conditions in general the Peninsula State is in sharp and pleasing contrast to certain other portions of the South. To be sure the millennium of good roads has not yet been reached in all parts of Florida, but acceptable pathways lead to almost all the tourist meccas. On the east coast, especially, there is an almost continuous good road the entire length of the state, for the people in this preeminent sightseeing section are enthusiastically doing their part to bring about the proposed Montreal-to-Miami highway.

THE GOOD ROADS BOOM.

It was the rock roads built at Miami by that wizard of the east coast, Henry M. Flagler, the Standard Oil millionaire, that constituted Florida's first up-to-date object lesson in modern road building and the example has certainly been followed energetically, considering the limited time that has elapsed. Florida has an admirable native material for roads in the coralline rock, which is soft and easily quarried and yet hardens under exposure to the air. Motorcyclists are almost unanimous in their endorsement of the roads formed from this crushed rock, but most of the riders with whom I have talked have been even more enthusiastic regarding the shell roads (formed from oyster shells), possibly because of their novelty and their picturesque appearance as they gleam white in the sunlight.

Florida, in the tourist routes which this oblong state opens to the motorcycle rider and sidecarrist might be compared to the prongs of a fork. In order to gain an adequate conception of all the attractions of this popular winter and spring playground the rider had needs make three excursions "down" the state from its northern gateway, or at least as far down as circumstances will permit. One of these routes is down the east coast; a second is along the west coast; and the third traverses the central portion of this narrow domain. In all sections the tourist awheel may as well be prepared to make long detours to avoid rivers and other waterways, and when he reaches the southern part of the state he will find his progress pretty effectually blocked by the Everglades and other swamp and wilderness regions—unless, mayhap, he chooses to put his machine aboard one of the trains of the "sea-going" railroad for transfer to Key West, with the object of spinning about that interesting island outpost.

CHOOSING A SIGHTSEEING ROUTE.

To most states and touring domains there are several entrances, but in this respect

A Seminole Indian; This Tribe Has Always Made Florida Its Stamping Ground.

Florida is almost unique. In so far as the main body of pleasure-seeking invaders are concerned there is only one gateway from the north, namely Jacksonville, which is reached not only by rail, but also by steamer from various northern ports. Located twenty-five miles from the sea on the St. John's River, Jacksonville is the metropolis of the state, and yet it affords the visitor scarcely a foretaste of the features of life and scenery which render Florida distinctive. For all that, it is well worth the while of the rider to tarry here for a few days and traverse the well-paved streets that were provided by a liberal public policy following the great fire of 1900. There are a number of interesting side trips from Jacksonville for the sidecar tourist including the one to the ostrich farm, which is one of the show places of Florida.

The rider who has been impressed beforehand by the storied glories of Florida will probably desire to make first the trip down the east coast, even though he intends later to visit the other interesting sections of the state. And the rider whose time will allow him to "do" only a portion of Florida can be counted upon, in nine cases out of ten, to choose the east coast, such is the prestige that section has attained, thanks to exploitation in the public prints and on the lecture platform. Presuming that the objective is Miami, the motorcycle traveler finds stretching almost straight southward a route of approximately 360 miles, most of it via a road that approximates a broad, hard-surfaced boulevard.

SOME POINTS OF INTEREST.

Following the coast route southward from Jacksonville, a run of something like forty miles brings the motor pilgrim to St. Augustine, probably the most fascinating as it is certainly the most historic community in Florida. Founded by the Spaniards, and successively under four flags, St. Augustine disputes with Santa Fe, New Mexico, the honor of being the oldest city in the United States. Fortunately for the present-day visitor all the most interesting mementoes of St. Augustine's old-time glory remain, but little impaired by the passage of the centuries. There is old Fort Marion, built by the Spaniards and with its bastion and moat and dungeons, all vivified by tradition; there is a cathedral as beautiful as many of those which Americans travel

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to Europe to see; there is the old city gateway, a cherished landmark; and a dozen other mementoes of the past, not forgetting the quaint, narrow streets with the odd, overhanging balconies characteristic of Spanish architecture.

In strange and marked contrast to this atmosphere of by-gone centuries is the beauty and luxury of the modern St. Augustine. Here are hotels which, as veritable palaces, perhaps have no rivals anywhere in the world. Here are handsome villas erected by wealthy winter residents—notably that Moorish gem, the Villa Zorayda. And here, radiating in all directions from the Plaza, are beautiful paved streets which invite the rider to view panoramas of tropical vegetation and glimpses of the sea. Alike to all Florida resorts, St. Augustine is the hub for many entertaining side trips. Perhaps the best is that to Anastasia Island and by a 12-mile spurt to Matanzas Inlet where there are to be seen the ruins of an old Spanish fort. These should be ideal trips for the sidecar tourist.

AT FAMOUS ORMOND BEACH.

A run of less than four score miles from St. Augustine brings the motorcyclist to Ormond, the portal to a district which is a literal paradise for riders, thanks to the opportunities for high-speed riding on that unrivalled beach which has attained world-wide fame as the scene of some of the most exciting automobile races in history. Ormond is often designated as Ormond-on-the-Halifax, and the explanation lies in the fact that the Halifax River is here parallel with the Atlantic Ocean, the two being separated by a peninsula about half a mile in width. Indeed the Halifax, fed by an inlet from the sea is virtually a lagoon and this is a form of waterway which is encountered at various points on the Florida coast.

Ormond is known to riders for its cycle paths and trails overhung by splendid oaks, but the pride of the place is, of course, the beach above mentioned. It is at mean tide fully 300 feet in width at the narrowest part, and it extends for miles up and down the coast, affording a speed course where the rider may in peace and security test the qualifications of his machine. The touring rider will follow the beach five miles south to the city of Daytona, which shares in the possession of this ocean-side speedway. Indeed the strand is usually referred to as the Ormond-Daytona Beach. At Daytona, as at Ormond, there are delightful shady roads for the sidecarrist who prefers sylvan surroundings and, dominating all, that thirty-mile beach so smooth and hard that the hoof of a trotting horse, much less the tire of a motor vehicle makes absolutely no impression upon its surface. Finally, it is to be borne in mind that the temperature in this section of Florida is of such a quality that riders may comfortably prolong their stay here until after the first of May. And, day in day out, the rider is assured an ideal natural highway, for twice every twenty-four hours the roadway is, in effect, rebuilt by the tides. Even though immense holes be dug in the beach one visitation of the tide will obliterate every trace. Furthermore, not only is there neither mud nor dust, but owing to the climatic and other conditions tire troubles are almost unknown.

THE "NEWPORT OF THE SOUTH."

Speeding southward from Daytona, when he is finally able to say adieu, the sidecar enthusiast comes, after a thirteen-mile run to New Smyrna, the oldest settlement on the coast south of St. Augustine and historically famous for a Greek colony established a century and a half ago. Here the rider finds another stretch of beach roadway, second only to that which he recently left. Rockledge, so named for its great ledges of rock, next claims attention; then comes the Indian River country with its vast fruit-raising industry; and Fort Worth, a resort favored by sportsmen. This brings the tourist amotor to Lake Worth and Palm Beach, twin resorts which constitute the fashionable center of winter life in Florida, and that are frequently referred to as the "Newport of the South."

This parade ground of the wealthy is located about 300 miles south of Jacksonville, and the water setting is similar to that already described as afforded by a lagoon or arm of the sea, paralleling the ocean itself. Lake Worth is a salt-water lagoon, twenty-two miles in length by a mile in width, and facing this placid waterway is the resort which bears the same name but which in general practice is consolidated with Palm Beach, which in reality is situated a mile away on the opposite side of the peninsula and facing the broad Atlantic. The two resorts are connected by promenades and motorcycle paths and there are numerous excursions to be made in this vicinity, including visits to an alligator farm and trips in the "jungle" to the haunts of the Seminole Indians—a remnant of the tribe that has long made the trackless inland sections of Florida its stronghold. At Palm Beach and Lake Worth may be seen wonderful examples of tropical vegetation; rare specimens of the cactus and a number of cocoanut palms, the origin of which is traced to the wrecking on this coast of a Spanish bark laden with cocoanuts.

IN THE PLANTATION DISTRICT.

Leaving Palm Beach the rider glides along superb roads through fruit and vegetable raising districts whose pineapple plantations and other sources of wealth cannot fail to interest the man who is at all concerned with human activities. At places the road skirts the Everglades, and stops at isolated trading posts of the Seminoles will afford the motorcyclist glimpses of native life that are wholly denied to the traveler who is restricted to transit by rail. After some forty miles of such experiences the nomad of the sidecar comes to Miami, located on Biscayne Bay and the most southerly of that chain of east coast resorts which to the average tourist signifies Florida. Miami is a wide-awake up-to-date town, but with all the charm that can be afforded by tropical landscapes. Hence depart the steamers for Nassau, a resort that is all but accounted a Florida show place and from Miami innumerable excursions may be made by small boats into the heart of the Everglades. But it must not be supposed that the rider arrived at Miami will need to put his machine out of commission for the time being. Excellent roads have been built to Cocoanut Grove and a number of other outposts in the vicinity, and the wealth of vegetation and the unusual agricultural methods are most interesting.

These Scenes Are Typical of the Striking Vistas Spread Before the Tourist on Florida's Eastern Coast.

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2000 MILES IN A SIDE CAR

HOW JULIUS FRESE, ERSTWHILE SPEED COP, CARRIED HIS WIFE & DAUGHTER FROM SPOKANE TO LOS ANGELES

BY CHARLES FULLER GATES

ONE of the most remarkable sidecar trips on record in this country was made not long ago by Julius Frese, a motorcycle repairman of Spokane, Wash., who designed his own passenger attachment and carried his wife and little daughter from Spokane to Los Angeles, a distance of more than 2,000 miles over good, bad and indifferent roads. Frese had acted as Indian agent in his district and had also served as a speed officer, so that he was well fitted to make the most of his Indian mount when he headed southward on his long jaunt.

Owing to the fact that he was obliged to carry two passengers Frese decided that a standard sidecar would not meet his requirements, and accordingly he built a roomy attachment along such lines that it afforded the regulation 56-inch tread found in automobiles and wagons. This was a bigger feature than it may appear to the uninitiated, for it is extremely difficult at times to drive a sidecar outfit with the motorcycle wheels down in a rut and the sidecar wheel bumping along in a track of its own. Frese fitted his attachment with a wide seat and with space in the rear, very much after the fashion of a boot on a stagecoach. The complete sidecar weighed 100 pounds and was large enough for two persons and some luggage.

COMPLETE ROAD EQUIPMENT.

A food box was built to fit under the seat and hold dishes, table implements, "grub" and an alcohol stove. A large telescoping luggage box was used to carry extra clothing, and for bedding there were five blankets and some lighter coverings. As the Freses were to sleep outdoors throughout the trip (and some rain was expected), a 7 by 9 tent was also carried. Mr. Frese weighs 173 pounds, his wife 125 pounds and the little girl, 90 pounds, so that with passengers and luggage in the sidecar the motorcycle was called upon to handle 886 pounds.

The start was made from Spokane on September 23, and Walla Walla, seven miles from the Oregon border and 156 miles from the starting point, was reached the second day. On the same day the 44-mile trip to Pendleton, Ore., was made and here a stop of two days was made so that the party might attend the cowboy contests known as the "Rodeo," for Pendleton is the headquarters of the promoters of these frontier sports which are staged, so to speak, in various parts of the country west of the Mississippi from time to time.

Along the route from Pendleton to The Dalles, some 250 miles of the road is good; it is the oldest road in that section of the country and runs parallel with the Columbia river. From The Dalles to Portland, about 200 miles, the roads are so bad that most travelers in that section go down the river by boat. The boat trip is not very expensive and the scenery along the river is excellent.

A THRILLING INCIDENT.

A day was devoted to sightseeing in Portland and the party figured that it had covered about one-third of the journey at this point. All had not been plain sailing, however. Soon after leaving Pendleton, for example, a six-horse freight team took fright at Frese's motorcycle and sidecar outfit and the frenzied animals got completely beyond the control of the driver. They wheeled about, broke the tongue off the wagon and did other damage, besides giving the driver a close call. Frese went to the rescue of the driver and later paid him for all damages, to avoid the delay incident to a lawsuit. In that section of the country the motorcycle has no standing in court—certainly not with the local lawmakers—and Frese figured that it would be as well to dispose of the matter at once.

The roads are quite sandy in the eastern part of Washington, but being a motorcycle mechanic and knowing his Indian seven thoroughly, Frese managed to get through with little trouble. He carried several sets of sprockets so that he was prepared to reduce the gear ratio in unusually heavy going. Most of the time he used a 5 to 1 gear on account of the sidecar and its heavy load, but in the mountains he found 6 to 1 on the high gear none too low for the work; at times he was compelled to use even a lower gear.

ENTERING CALIFORNIA.

South from Portland it is a run of 353 miles to the California line, and 452 miles from the state boundary to San Francisco, by way of Grant Pass and Sacramento. This route is now marked all the way with signboards of the Pacific Highway, the name given to a route along the Pacific which is expected by its promoters to extend in time from Alaska to South America; it is in use at present from Canada to the Mexican border. Naturally the new signboards of the Pacific Highway were a great help to Frese on his long journey, and on the whole he considered the going fairly good to Redding which is 150 miles south of the Oregon-California border. Below Redding the roads are used more extensively, crossroads are quite plentiful and the district begins to show signs of the population found in the central and southern sections of the state. In this neighborhood Frese began to notice automobiles and motorcycles, and he found that the wilderness had been left behind him.

Through Washington, Oregon and northern California a sidecar had never been seen before, and wherever the Freses stopped they were surrounded at once by a crowd of curious natives. In several of the small towns it was found necessary to hide the outfit in a shed in order to avoid creating a disturbance and getting into trouble with the police. In Eugene, Ore., the outfit was left in front of a motion picture theater and in a few minutes the street in front of the amusement place was blocked.

WELCOMED IN SAN FRANCISCO.

In San Francisco, Manager Hopkins, of the Hendee branch, who has been a sidecar enthusiast for years past, extended a warm welcome to the Frese party, and Mr. Frese was introduced to many of the motorcyclists of the city before he was permitted to resume his trip southward. South of San Francisco much of the journey is along the Pacific on El Camino Real, the old mission road. In this district good roads are the rule, and often for miles at a stretch the highway is paved and as smooth and hard as asphalt. There are old missions scattered along the line and many interesting places that will repay the traveler for a visit. All in all, El Camino Real has earned its title as "the road of a thousand wonders."

All along this section of the route are the road signs of the Automobile Club of Southern California, which now has 5,400 members, and which spends a small fortune each year in marking highways and bringing about improvements. These signs, designed by the writer, show the topography of the road and the turns so that a traveler can follow the road at the rate of a mile a minute, if necessary, and still read the pictures and know what is ahead of him. The signs are placed about eight feet from the ground on white posts and about 200 yards ahead of the turns, crossings, etc., they refer to.

ARRIVING IN LOS ANGELES.

The Frese party arrived in Los Angeles October 17, where they were welcomed by relatives. Following a short rest after his 23 days on the road Mr. Frese disposed of his luggage, added his sister to the party and the four went sightseeing all over southern California. If that isn't a great record for a home-built sidecar and a 7 h. motorcycle we would like to have some one inform us as to just what constitutes a great performance for such an outfit.

Sidecars are so numerous in and about Los Angeles (there is a sidecar factory here) that the Frese attachment does not attract much attention in the streets, but whenever Frese can be induced to tell the story of the run from Spokane to Los Angeles he has no

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difficulty in finding listeners. Frese states that his running expenses were very low throughout the trip, and that owing to his intimate knowledge of the motorcycle and sidecar the upkeep has been held down practically at zero.

THE ROUTE AND MILEAGES.

Frese's route and the mileages from Spokane to Los Angeles are given below. The traveler did not keep a detailed log on his way down along the coast, but after arriving in Los Angeles he collaborated with the writer in the preparation of the route as given here. As this is the main route for motorists along the coast, at least between Portland, Ore., and Los Angeles, it should prove of interest to tourists in general.

Spokane	
Rosalia	34.5
Colfax	35.2
Snake River Ferry	34.0
Waitsburg	45.0
Walla Walla	20.3
State Line	7.0
Pendleton, Ore.	37.3
Heppner	158.3
The Dalles	96.6
On river boat to Portland, Ore.	
Portland, Ore.	
Oregon City	13.5
Salem	39.9
Albany	31.0
Eugene	47.7
Cottage Grove	21.1
Roseburg	54.5
Grant's Pass	70.9
Medford	31.2
Ashland	12.4
California State Line	
Coles	31.1
Bailey Station	2.8
Hornbrook	5.5
Thrall	4.8
Yreka	15.6
Grenada	20.5
Gazelle	9.8
Edgewood	
Weed Station	11.0
Sisson	17.6
Shasta Springs	
Dunsmuir	29.3
Delta	28.3
Redding	38.7
Red Bluff	32.3
Chico	41.4
Gridley	29.9
Marysville	20.1
Sacramento	45.6
Galt	25.0
Stockton	22.2
Livermore	43.4
San Francisco	38.5
San Francisco	
San Jose	
Salinas	59.0
Paso Robles	112.0
San Luis Obispo	31.0
Santa Maria	32.0
Santa Barbara	95.0
Ventura	36.0
Los Angeles	74.0

HELPFUL HINTS FOR SIDECARRISTS

BY TIMELY TIPSTER

SOME funny things happen occasionally when a sidecar outfit has the brake suddenly applied. If the front wheel is turned to the left at the time the brake takes hold, a skid toward the right will occur and the faster the speed of the outfit at the instant of braking the handsomer the skid. The wheel should be kept in the line in which the rig is going or better, when possible, turned slightly to the right.

WATCH the sidecar tire to see that the chair is in proper line with the machine. The tread should be worn off evenly in the center when all adjustments are properly made but wear on either side quickly indicates misalignment. When on the left of the tread, it may mean that the chair leans in toward the machine or that the distance at the front of the wheel is greater than the distance at the rear. Wear at the right side indicates that the sidecar leans out or that the front of the wheel points inward instead of being parallel.

UNLESS you are going to tour across the Continent, carry as little luggage as possible on your trips. Every pound of dead load means extra wear and tear, and greater consumption of fuel. The springs carrying the chair are not intended to carry railroad iron or an equivalent weight as well as the passenger.

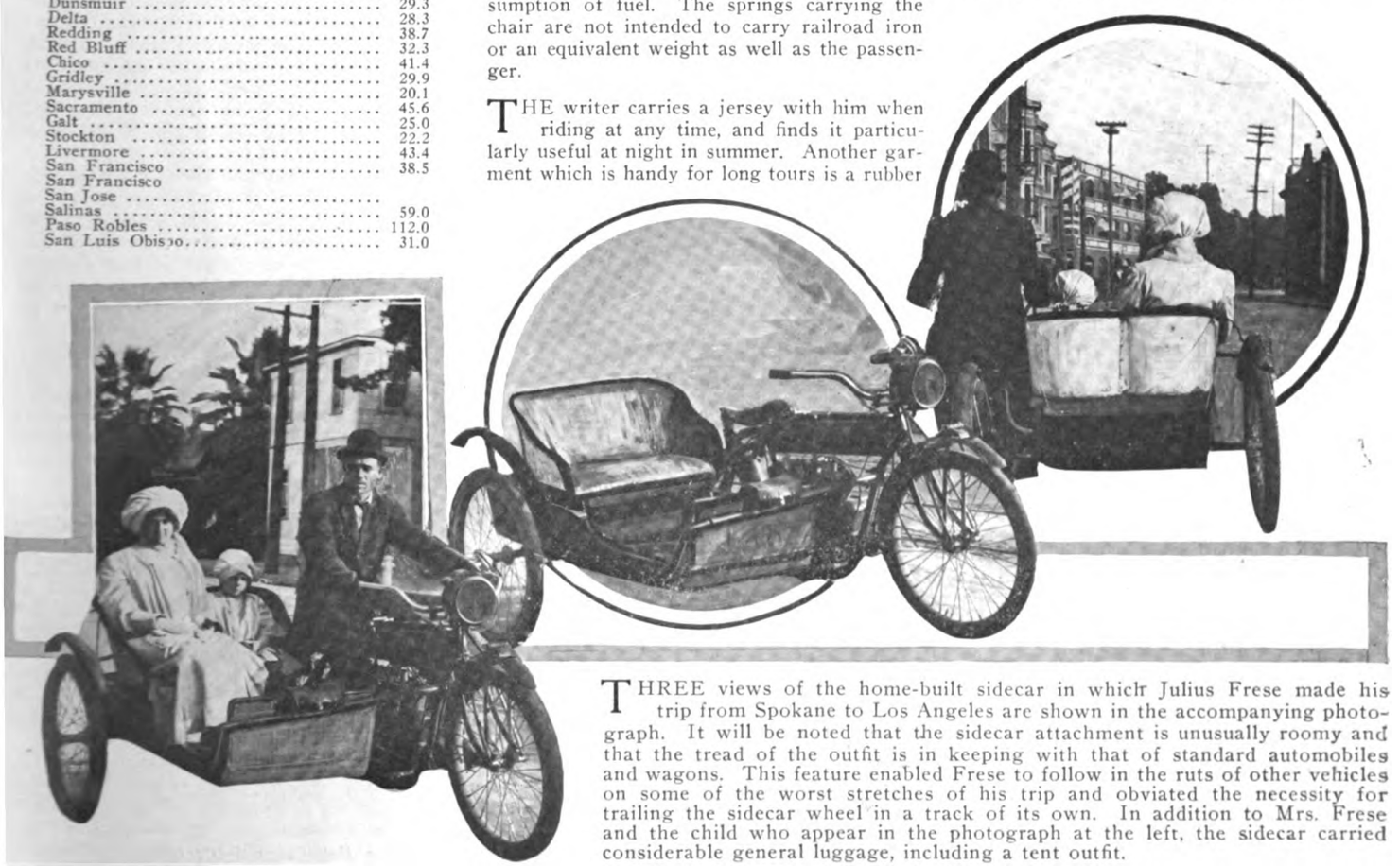
THE writer carries a jersey with him when riding at any time, and finds it particularly useful at night in summer. Another garment which is handy for long tours is a rubber poncho or cloth having a slit in the center through which the head is put when worn as a cape. This slit has a fly-flap, and the skirts can be spread over the sides of the chair when used by the passenger. When used by the rider, the skirts hang down front and back, and if the poncho is big enough the front skirt can be fastened to the handlebars so that the arms are shielded from the rain. Eyelets are fitted to the skirts, so that strings can be used for fastening them down if desired. The skirts mentioned are the longer sides of the poncho.

FOR the owner of a sidecar outfit who smokes, wind-matches are desirable and become additionally useful when [illegible] are to be lighted. For the latter [illegible] ck action is essential, as such matc[illegible] very briskly. A pocket lighter using alcohol is also good, but for pipe-lighting at high speed does not compare with the wind match.

WHEN using a sidecar with a two-speed machine, don't hesitate to change gear as soon as the motor shows signs of working hard. You save the motor and its bearings by so doing, and also yourself and passenger from getting out and pushing. As the motor may run hot if kept too long on the low gear, change up to the high as soon as conditions warrant it. Change up quickly and down slowly, the latter to let the motor gather speed.

SIX motorcyclists of Pensacola, Fla., recently made a run to Atmore, Ala. They found the roads in fairly good condition.

CLARENCE L. SANDS, of the Secret Service Bureau, Manila, P. I., received the F. A. M. membership card numbered 20,000, and is justly proud of his acquisition.



THREE views of the home-built sidecar in which Julius Frese made his trip from Spokane to Los Angeles are shown in the accompanying photograph. It will be noted that the sidecar attachment is unusually roomy and that the tread of the outfit is in keeping with that of standard automobiles and wagons. This feature enabled Frese to follow in the ruts of other vehicles on some of the worst stretches of his trip and obviated the necessity for trailing the sidecar wheel in a track of its own. In addition to Mrs. Frese and the child who appear in the photograph at the left, the sidecar carried considerable general luggage, including a tent outfit.

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A HOME BUILT CYCLE CAR

by ROY S. PASCALL

FOR some time past motorcyclists in Newark, N. J., have been dividing their interest between the 1913 models of motor two-wheelers and a brand new type of four-wheeler, the latter being a product of Wilmer Stevens, which he has introduced to the New Jersey city as a full-fledged American cyclecar. In view of the fact that Stevens constructed this vehicle after his own design, aside from the motor, and owing to its demonstrated ability to meet all ordinary requirements—and some that are quite extraordinary—it is not

Head-on View of the Stevens Cyclecar.

remarkable that it has attracted considerable attention. Stevens does not claim that his cyclecar is a thing of beauty as yet, but that he can obtain a surprising amount of work from it under adverse conditions has been proved to the satisfaction of Newark motorists in numerous tests.

Stevens, by the way, is well known in Newark and vicinity as an endurance rider and one of the most dependable motorcycle roadsters that ever plugged a flooded highway. He is manager of the eastern distributing agency for Yale machines, which is conducted in Newark by F. C. Cornish, and was at one time president of the New Jersey M. C. Stevens has romped off with the reliability cup in two consecutive annual runs of the New Jersey club, and for four years he has shown a perfect score in the club's big round-the-state endurance trial. It follows, naturally, that he is pretty well acquainted with the innards of a motorcycle motor.

SOME SPECIFICATIONS.

Just how Stevens came to enter upon the construction of his cyclecar is not explained, but he has always been given to tinkering with motorcycles, and it is likely that the cyclecar idea originated when he found himself in possession of a power plant that was not needed for motorcycle service. At any rate, he has spent much of his time during the past winter in perfecting the interesting little vehicle, and it is now paying him big amusement returns.

The frame of the Stevens cyclecar is built of oak, 1½ by 3 inches, and semi-elliptical springs of the automobile type are used. In this way the designer has obtained all the strength and rigidity necessary and still kept the weight of his car down to the minimum. The oak frame is not as cumbersome as might be supposed, and with the desirable qualities above mentioned it combined economy. The axles are made of steel tubing, and it will be noted in the photographs which appear on this page that they embody one or two of the builder's own ideas. The front axle, in particular, shows an ingenious arrangement that is worthy of attention.

The power plant is a 7 h. Yale motor, which has proved quite adaptable to its new work. Cooling of the motor is assisted by a fan which is driven by a short belt from a pulley actuated by the magneto gearing. The brakes are operated by a foot lever, acting on Corbin rear hubs fitted with V-band brakes.

INTERESTING TRANSMISSION SYSTEM.

As might be expected, the most noteworthy feature of the Stevens product is the transmission system. It is of the friction disc type, and affords a range of gearing from 4 to 1 on high to 28 to 1 on low. There is also a reverse. With this rather startling range of gearing the cyclecar is capable of performing sensational stunts. Even when the front wheels are placed directly against a six or seven-inch curb, for example, the machine is able to pull itself over the obstruction without difficulty. Stevens has enjoyed himself immensely on several occasions by demonstrating this ability of his vehicle for the benefit of incredulous Newark motorists.

Flexibility in the drive has been obtained by using springs in a sort of universal joint to the propeller shaft with a friction disc on the rear end; then carrying the drive to the jack-shaft by a friction-driven wheel in the center. This does away with the necessity for a differential gear. V-pulleys on the ends of the jack-shaft drive a 1⅛-inch V-belt to each rear wheel. Up to date this transmission system has given Stevens little or no trouble.

The jack-shaft swings on eccentrics to permit of the friction wheel's being shifted to change the gear, and also to act as a clutch, the latter being operated by a foot lever. The propeller shaft and jack-shaft run on roller bearings.

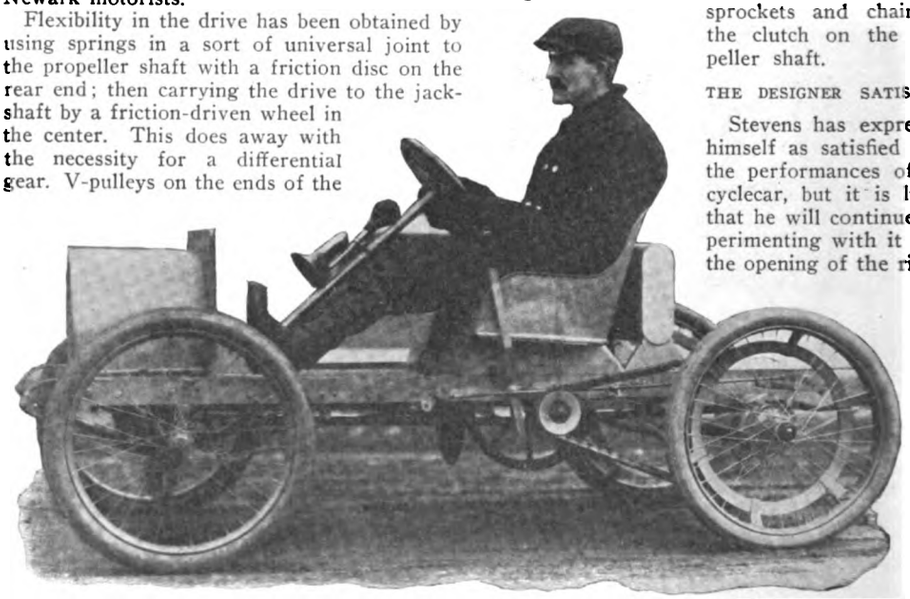
A LIVELY ROADSTER.

Stevens states that he has repeatedly driven his novel little vehicle 45 miles in an hour on the road, and that it can be depended upon to reel off 40 miles an hour with two people aboard. The whole outfit weighs only 300 pounds, but despite this fact, it holds the road satisfactorily at speed, and is credited with remarkably easy riding. The front axle has springs in the steering knuckles in addition to the body springing, and this helps to provide more flexibility than is found in many light automobiles.

The tank, which is elliptical in shape, is fastened back of the seat and holds four gallons of gasoline and one gallon of oil. The lubricant is fed to the motor by a force system, a small hand pump being utilized. The oil is brought to the dashboard and then through a sight-feed to the engine. A small gauge on the dash-board shows the tank pressure. The spark and throttle are controlled from the steering wheel. The wheelbase of the cyclecar is 67 inches and the tread 42 inches. The top of the chassis is 18 inches from the ground, and the seat is 25 inches from the road. The hood and seat are made of bent material, while oak has been used for the dash-board. Starting is by a crank in front, operated on a short countershaft running to the back of the motor and then by sprockets and chain to the clutch on the propeller shaft.

THE DESIGNER SATISFIED.

Stevens has expressed himself as satisfied with the performances of his cyclecar, but it is likely that he will continue experimenting with it until the opening of the riding



Side View of the Newark Product, Showing Belt-Drive System.

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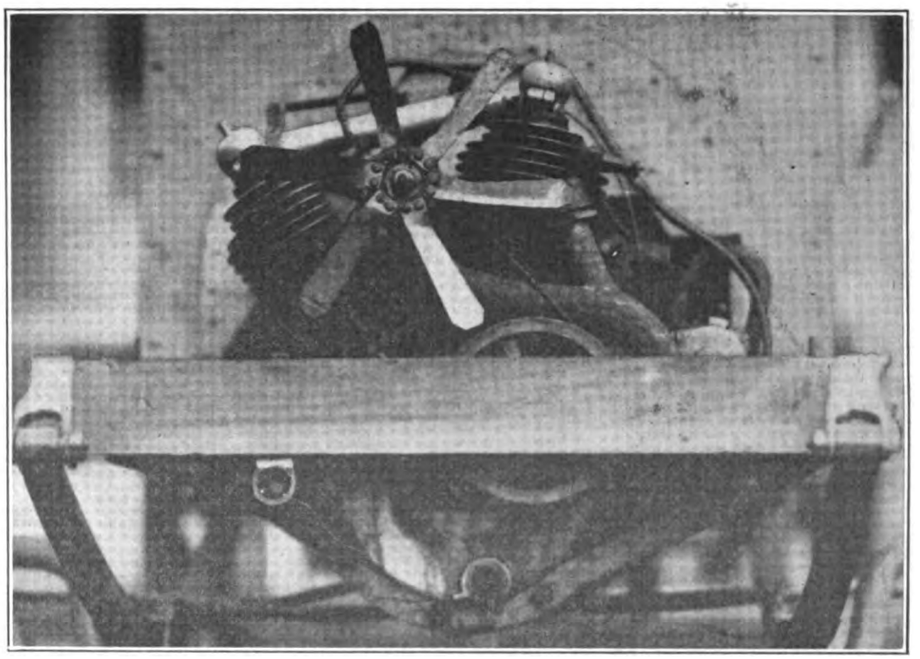
season with a view of obtaining still better results from it. Unusual interest attaches to the car because of the fact that it is one of the very few American vehicles to which the term cyclecar can be legitimately applied. The classifying of English cyclecars is somewhat hazy, but it seems obvious that a vehicle operated by a stock motorcycle engine and driven by ordinary V-belts is entitled to be known as a full-fledged cyclecar—if anything is to be so designated.

Within the last few months reports have been received from several designers in various parts of the country to the effect that they have home-built cyclecars in successful operation, but it is unlikely that any of these experimenters has worked out his machine along the novel lines found in the Stevens product. As a rule, light automobile parts are combined with a motorcycle power plant, but it will be noted in the Newarker's design that he has used his own ideas practically throughout the construction.

EARL ARMSTRONG, the Indianapolis racer, who is spending the winter in Caya, Porto Rico, writes that motorcycles are numerous along the coast. The section of the country in which he is staying is noted for its steep hills, but Armstrong says that none have balked his motor.



The Motor as Fitted in the Stevens Cyclecar. Note That It Is Tilted to the Left to Permit of Placing the Magneto.

SHORT GRASS M. C. PLANS

OFFICERS of the Kansas Short Grass M. C. held a meeting in Hutchinson, Kan., on February 22, at which Denver was endorsed for the scene of the 1913 national convention of the F. A. M., and tentative plans were outlined for the annual tour of the Short Grass riders. It was decided that Denver will be the destination of the club on its coming trip, provided the F. A. M. accepts the offer of the Mile-High City to act as host for the big assembly. The Short Grass tour for 1913 will consume 11 days, and that it will be even more successful than those held in the past is evident from the fact that the Kansas State Automobile Association has signified its willingness to co-operate with the motorcyclists. With this arrangement it is likely that there will be over 300 motorcycles and about 100 automobiles on the tour.

A novel feature of the 1913 tour, according to present plans, will be a road race from Kansas City to Denver, over the last 650 miles of the tour route. It is the intention to cover this distance in two riding periods of eight hours each, in view of the fact that a racing schedule of 40 miles an hour is counted upon. Under this arrangement the riders would cover 325 miles in each eight-hour day.

The route from Kansas City to Denver will be over the Golden Belt. It will follow the Union Pacific railroad to Oakley, Kan., and to Colby and then follow the line of the Rock Island railroad to Denver. It is stated that these roads will be found in excellent condition and that it will be possible to maintain the 40-mile an hour schedule without great difficulty. The winner of the road race will be awarded a silver loving cup to cost not less than $250.

The Short Grass club will follow the general plans of its 1912 tour in preparing for the coming trip. The riders will pay in a certain percentage of the outlay for the trip in advance, and will be assured that all their wants will be provided for by the club. As in 1912 an automobile truck or two will carry full camping equipment and there will be a staff of cooks, helpers and musicians to assist in carrying out the big program.

DENVER M. C. ENTERTAINS.

A SPLENDID entertainment was recently given by the Denver (Colo.) Motorcycle Club at its clubrooms. The occasion was marked by the unusually large attendance of the fair sex. Eddy T. Kelly, who has for some time been starring on the Orpheum circuit, was the most prominent entertainer. Walter W. Whitney, agent for the Harley-Davidson in Denver, was instrumental in having Mr. Kelly on the program. A number of other features were offered, among which was a boxing match between Jim Cox, "the Texas Cyclone," and "Kid" Gray, the club champion. Mr. Burnham, of the Denver Convention League, gave an interesting talk on the possibility of having the 1913 F. A. M. convention in Denver. At the close of the entertainment Mr. Whiting distributed 150 boxes of Phillip Morris cigarettes, especially manufactured for the Harley-Davidson Company.

RACE OVER MOUNTAINS

A COMMITTEE appointed by the Bakersfield Motorcycle Club, Bakersfield, Cal., recently arranged for a race between H. C. Park and Jules Berges. The race was over an eighty-mile course through the mountains. Park sustained a bad spill and was forced to quit the race. Berges, mounting a 1913 Thor 7, finished after doing some hard riding. This race being for a side bet of $100 placed the riders in the professional class. A run is held every Sunday by the Bakersfield club and sidecars are much in evidence on these occasions.

BY way of calling attention to the fact that the Augusta (Ga.) M. C. is a broad-gauge organization, the club officers state that its membership list includes riders from Cleveland, Chicago, New York and Pittsburgh, as well as from a number of Georgia cities aside from Augusta.

REGISTERED SHOPS

AMONG the latest F. A. M. repair shop registrations are: Carl Krueger, Hutchinson, Minn.; Elmer Kittell, 1214 Moro street, Manhattan, Kan.; Pioneer Motorcycle Exchange (R. E. Rodgers), Monessen, Pa.; Normanskill Motor Shop (H. L. Tibbits), Albany, N. Y.; Ira S. Dille, Billings, Mont.; C. M. Cleveland, Earlville, Ill.; Coalinga Auto Repair Shop (C. C. Clink), Coalinga, Cal.; Ashland Motorcycle Garage (Charles E. Ogden), Ashland, Ohio.; Tecumseh "Big Chief" Garage (L. P. Williamson), Tecumseh, Mich.; Elmer Peters, Mineral Point, Wis.; Sallot & Sallot, Fort Wayne, Ind.; Thor Motorcycle Garage, Aurora, Ill.; Badger State Motorcycle Co. (Adolf Waech), Milwaukee, Wis.; Clark Cycle Co. (E. O. Clark), St. Josephs, Mich.; Lents Garage (Arel Kildahl), Lents, Ore.; G. S. Wilson, Bechtelsville, Pa.; D. W. Polkinghorn, Cherokee, Iowa; Guarantee Electric Co., Ltd. (H. P. Wagner), New Orleans, La.; Roy R. Baer, Sterling, Ill.; Gerber & Winter, St. Paul, Minn., and J. Polier of Portland, Ore., received a re-issue.

INDIANA STATE PROGRAM

PRACTICALLY all the plans for the Indiana State F. A. M. convention, which will be held May 16, 17 and 18, have been completed, and State Commissioner O. F. McLain has sent out letters to county commissioners telling of the program for the event. Every local commissioner is to call a meeting of F. A. M. members in his county and elect delegates. One delegate will be allowed for every ten members, and the county commissioner will be a delegate by virtue of his office.

The program has not been completed, but a number of speed events have been arranged for. If possible one of the national events will be run, and if not a state championship will be put on. A 24-hour endurance run is also scheduled.

DURING the week ending March 1 the Bay City Motorcycle Club of Bay City, Mich., and the Hyde Park M. C., of Hyde Park, Mass., affiliated with the F. A. M.

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The SIDE CAR AS A SALES BOOSTER

BY ARTHUR LAROE

ALTHOUGH concerning itself with the use of the sidecar as an adjunct to the business of the dealer in motorcycles, this article is not intended to be without interest to riders generally.

Altogether too many dealers completely overlook the sidecar as an adjunct—yes, almost a necessity to their business. Let's see how important the sidecar is by comparing it with some other things, naming them in order of their importance to the dealer. First of all, a good machine to sell and good salesmanship to sell it; then next in order a well-dressed and attractive display window, and a neat and inviting salesroom. This probably meets with approval. But how many will agree when the sidecar is mentioned next in order? and not wholly forgetful either of the real value of advertising in local newspapers. Experience has shown that the sidecar gives better publicity results—and they are what we are looking for.

Of course, it is true that in some localities newspaper advertising would take precedence over "sidecar" advertising, depending upon the number and class of people reached by the particular advertising medium employed. This is a pretty high estimate of the actual value of the sidecar as a promoter of sales, but the opinion is based upon experience that extends over one successful season with the third-wheeler, as compared to several seasons without it.

A sidecar may be used for many kinds of work; in fact, for an endless variety of purposes. Let's classify a few of these, too, in order of importance. First comes advertising, for nearly everything the dealer does with his sidecar is one form or another of advertising. Probably next in order comes demonstrating, in which the sidecar is almost a necessity. Then we should note the instructing of purchasers in the manipulation of the controlling devices; exhibiting the case with which the machine can be handled, and routing prejudices that a few people still hold against the motorcycle.

AN ADVERTISING ADJUNCT.

There are so many ways in which the "basket" can be used as an advertising medium that I cannot essay to enumerate a tenth of them. It attracts attention to the dealer's enterprise, to his machine, and to passenger carrying in general. Suppose we consider a few of these methods without any regard this time for order of importance. Every minute that the sidecar outfit is before the eyes of the public it is performing its little mission of advertising. It behooves the dealer, therefore, to keep it on the streets of his city as much as possible, even if it must stand idle before his door. This will prove at least that it is not undergoing repairs in the shop. And this having it "in harness" conveys the idea that it is a machine that is always ready for business.

Of course, the more it is driven about the streets the better will its function be performed. Ordinarily, no doubt, a better impression is made upon the mind of the public if the equipage includes a passenger besides the driver. And generally speaking, the prettier she is, the better that impression. Granted, most dealers have one or two other little details of business to attend to in addition to driving about the streets as a moving advertisement. But every dealer has errands *ad lib,* for which the three-wheeled buggy may well be used, especially considering its very low cost of mileage and maintenance. The writer's sidecar has been used for everything from posting a letter to moving furniture.

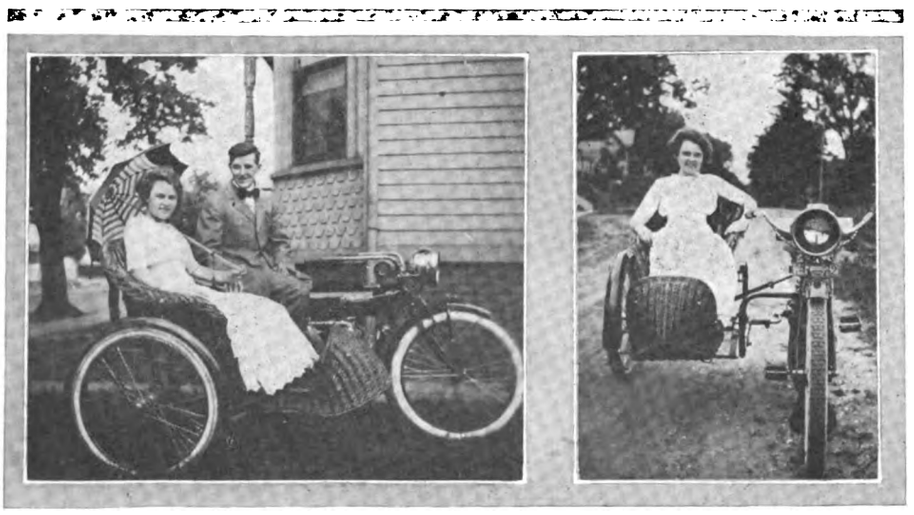
SOME PUBLICITY POINTERS

Perhaps the most fruitful scheme for getting free advertising is to proffer the service of your sidecar to a local newspaper for use on special occasions such as at election time, and, whenever you can, for conveying reporters to scenes of fires and accidents. In one instance my sidecar was used by the staff of a daily newspaper for the collection of election returns. The results of this experiment were highly satisfactory to both the staff and myself, and, of course, my outfit came in for a nice little write-up next day. The reporter who used the sidecar could cover three times the territory covered by the others, and the matter was turned in at headquarters written, while the others sent it over the wire.

Another role which the sidecar has played to perfection is that of official vehicle to a master of ceremonies or parade marshal in holiday programs. There is certainly no vehicle better adapted to this service than the motorcycle with sidecar. It has the requisite properties of reliability, rapidity, and perfection of control in traffic; and besides it is so small it can be squeezed into and through places where an automobile would get all tangled up and stalled. It is easy to realize the great prominence afforded the little vehicle under such circumstances, for who doesn't go to see the "p'rade"?

A HOLIDAY SUGGESTION.

The dealer who fails to enter his sidecar in any appropriate holiday festivities, in one capacity or another, surely loses a splendid opportunity to place his machine favorably before a large majority of his city's populace. Unless acting officially, the outfit should carry some catchy decorations—and the prettiest girl in town. It shouldn't be hard to persuade her to act as passenger. Even more effective than artistic decorating is some scheme of grotesque trimming, which will quickly suggest itself to anyone with a funny-bone.



One which has been very successfully carried out is that of "Mutt and Jeff," in which Mutt acted as driver and Jeff as passenger. The equipment of the entry included among other things, stove-pipe, halter rope, fire-crackers, cow-bells, and a 36-inch Stillson wrench, which never failed to make the motor mote. The name of the

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machine and dealer must be prominent among the trimmings.

These are a few of the methods in which the sidecar can be used as an advertising agent. As a demonstrator it is almost a necessity, for how else can the skeptic be shown the real capabilities of the machine? Surely not by asking him to stand on the curbing and watch you ride past him. With a sidecar you can show him, and most people buying motorcycles are "from Missouri." There is nothing that the writer can think of that clinches a sale more quickly or surely than a ride in the sidecar.

HOW BOOSTERS ARE MADE.

Although not absolutely essential to proper instruction in manipulation and control, it is exceedingly convenient in this service It permits a novice, as a passenger, to become thoroughly familiar with the various controlling devices before anybody's health and happiness depends upon his skill. And it usually inspires him with confidence in himself, to note the perfect ease with which the control is managed. There is another function which the sidecar performs so perfectly that it must be mentioned; that is, making boosters out of knockers. There is not a better cure for those fellows that are continually railing against the "infernal jigger" than a good ride beside one of them. In 100 per cent. trials it has convinced the subject that there is no easier-riding vehicle.

To those dealers who have been using a sidecar attachment, these suggestions probably sound tame. Those who are not yet on the band wagon may easily prove to themselves the utility of the outfit in their business by investing in one. They may be assured that it will pay for itself many times over in a season.

NATIONAL HIGHWAY PLANS

WITH a view of arousing further interest in its project for a national network of good roads the National Highways Association, with headquarters at Washington, D. C., is distributing copies of a map showing a tentative outline of the routes embraced in the country-wide plan. While the scheme is of such scope that it may impress the casual reader as somewhat visionary, it is finding advocates in many influential circles and is at least worthy of serious consideration from all road-users and motorists in particular.

The following list of highways will serve as a key to the network of routes laid out on the map:

Main National Highways—1, Northern; 2, Central; 3, Southern; 4, Atlantic; 5, Mississippi; 6, Pacific Trunk National Highways; 7, Appalachan; 8, Canada-Gulf; 9, Great Lakes-Atlantic; 10, Great Lakes-Gulf; 11, Lake-Mountain-Pacific; 12, Missouri-Arizona; 13, Northwest; 14, Oklahoma-Carolinas; 15, Puget-Gulf; 16, Rocky Mountain; 17, Santa Fe; 18, Southwest; 19, Texas-Atlantic.

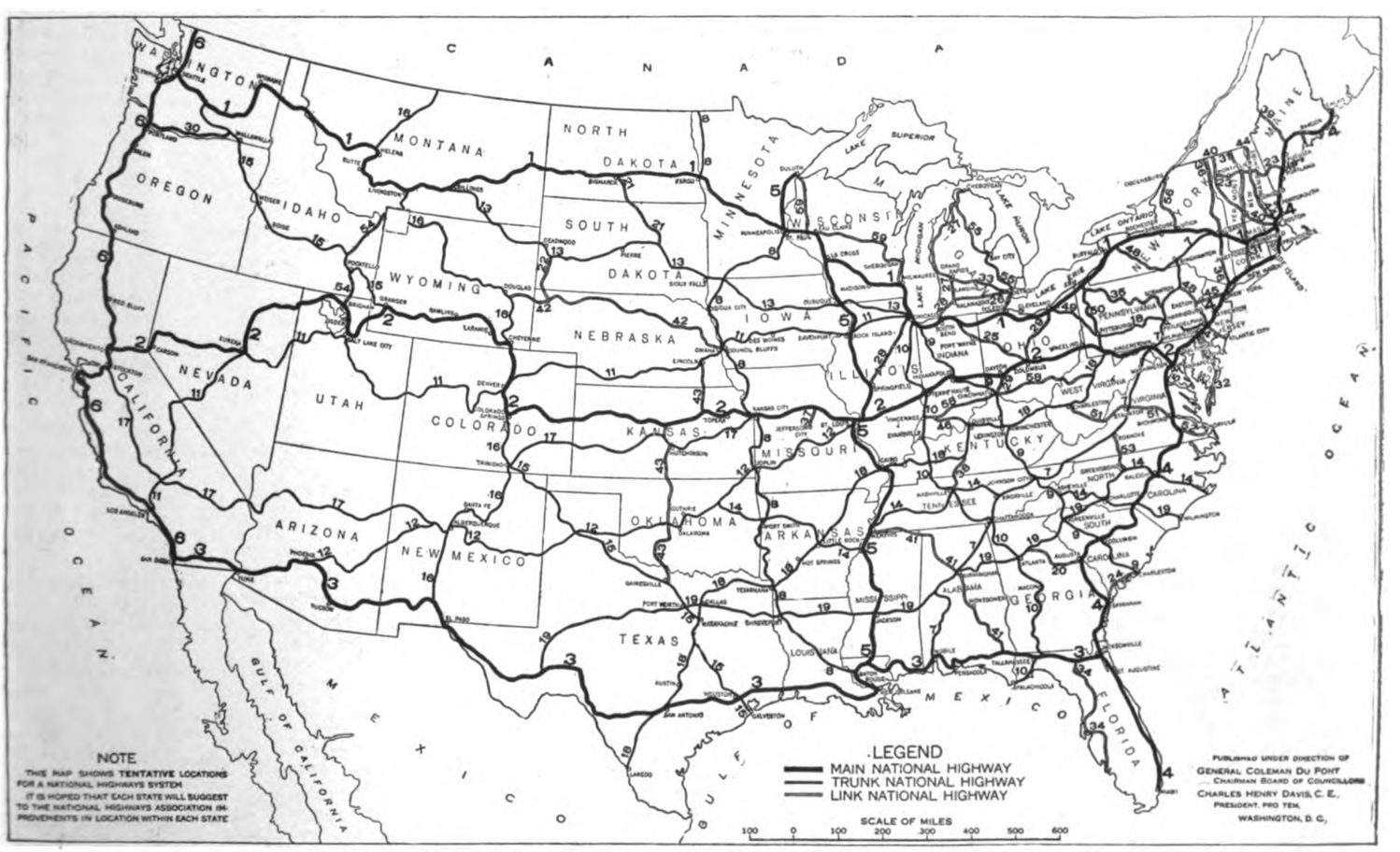
Link National Highways—20, Atlantic-Augusta; 21, Bismarck-Pierre; 22, Black Hills; 23, Burlington-Portland; 24, Charleston-Savannah; 25, Chicago-Columbus; 26, Chicago-Detroit; 27, Chicago-Mackinac; 28, Chicago-St. Louis; 29, Cleveland-Cincinnati; 30, Columbia River; 31, Connecticut Valley; 32, Delaware-Chesapeake; 33, Detroit-Grand Rapids; 34, Florida West Coast; 35, Harrisburg-Erie; 36, Hudson-Adirondacks; 37, Jefferson City; 38, Louisville-Nashville; 39, Maine-Quebec; 40, Massachusetts-Vermont; 41, Memphis-Florida; 42, Nebraska; 43, Nebraska-Texas; 44, New Hampshire; 45, New York-Scranton; 46, Ohio-Wabash; 47, Philadelphia-Atlantic City; 48, Philadelphia-Buffalo; 49, Pittsburgh-Cleveland; 50, Pittsburgh-Erie; 51, Richmond-Charleston; 52, Richmond-Norfolk; 53, Roanoke-Greensboro; 54, Salt Lake-Montana; 55, Toledo-Mackinac; 56, Utica-Ogdensburg; 57, Washington-Annapolis; 58, West Virginia-Indiana; 59, Wisconsin.

REVIVAL IN GERMANY

REPORTS from abroad are to the effect that Germany is experiencing a revival of interest in the motorcycle, and that a number of prominent firms that gave up the manufacture of the motor two-wheelers several years ago in favor of automobiles are now preparing to enter the market again. Every effort is being made to offset the invasion of English and other foreign-built motorcycles, and it is stated that a well-known company is designing a special 3½ h. horizontal twin with which a bid for favor is to be made in the near future.

ENGLISH RACING POLICY

ANNOUNCEMENT is made that the English Motorcycle Manufacturers' Union has decided upon the policy followed last year with reference to competitions. The organization will support a number of important events and refrain from participation in the others.



Tentative Outline of Roads to Be Included in National System by Highways Association.

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TIPS FOR THE TANDEMITE

BY C. V. ARMSTRONG

BY way of introduction allow me to state that I am a confirmed tandemite. If I had ever used a sidecar I might be a strong rooter for the third-wheel attachment, but as things stand now I am quite satisfied and expect to remain so. I believe that most troubles held against tandem riding result from improper arrangement of the rear saddle and unreasonable expectations on the part of the machine owner. True enough, there are some problems to be met in tandem work, but I have overcome them and I am sure other riders can be equally successful. Several points have been brought home to me by long experience, and I will try to pass them along for the benefit of the other boys.

LOCATING THE SADDLES.

The all-important thing is this, the tandem rider must not sit back of the rear hub. Any and all weight back of the rear hub tends to make the front wheel unmanageable in sand, to make it wobble worse in starting and skid worse in mud. A machine with the rear saddle back nearly to the end of the mudguard, where some of them are fitted, runs all right on good roads, but in cross-country riding it has the spirit of a bucking broncho; it will throw you in ruts and sand just as quickly next summer as it did this summer. No amount of experience or grit can conquer it.

However, with the seats placed as they should be I believe tandem riding is just as safe as riding alone, and a dozen times more fun. Of course the machine should be a twin, with a long wheelbase. I believe the extra weight demands a wheelbase of sixty to sixty-five inches. It is probable that the reason so many saddles are placed so far back is because there isn't room for them to be any farther ahead unless the front saddle is moved forward. Moving his own saddle ahead is something the average rider does not like to do. He is used to it where it is, and it undoubtedly belongs where it is when used in solo work. But tandem riding is a different proposition, and the front saddle should be pushed ahead. Of course, with the front saddle ahead, say, eight inches, the machine handles differently, and one must learn to drive all over again, as it were, but you can learn, and in a few hundred miles of tandem riding you will find that your terror of bad roads has disappeared. I know that on most machines the front rider's saddle could not be moved ahead eight inches. The pedals would then be too far back, the clutch lever or belt lever or something on the tank would be in the way of the saddle, and last, but not least, the handlebars would hit the rider. I had all these things to deal with, and here's how I managed my machine.

A RECONSTRUCTED MACHINE.

I got rid of pedal trouble the first thing by purchasing a machine that had no

pedals, a two-speed twin with three-inch tires. My wife and eleven-year-old boy ride on saddles placed side by side, sixteen inches apart, over the rear wheel, as shown in the picture. The rear handle bar is mounted in the top of a pipe fastened in the seat-post tube. There is a footboard on each side of the rear wheel and the rear riders have plenty of room. I reconstructed my saddle frame and fastened it to the top bar eight inches forward of its original position. It is right over the gasoline shut-off, but this doesn't bother me. I had to take the speed change lever off, but I put on a more simple rig farther ahead and that is all right now. The clutch lever was in the way, but I had a blacksmith make a new one, which is bent ahead just above the arc. I also fastened my foot-board to the bottom of this lever so that I can work the clutch with my foot a good part of the time. My handlebars swung past me all right after I cut off the flexible extensions of the grips.

Perhaps you wonder what this machine can do. I want to tell you that it can do

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wonders on bad roads with its load of three people, making over six hundred pounds entire weight. We take sand, ruts, roadsides, ditches, meadows, etc., with great success, and the only thing that gets us real quickly is a wet street car rail. When we hear of some place or see some place on the map that we want to go to we go right along without regard for whether the roads are "good" or not. The three-inch tires are great for sand and soft ground; also they do not puncture as easily as small ones. Other riders seem to shun this class of roads and we have to make most of our trips alone. Last fall we rode more than sixty miles on a fine day without seeing another motorcycle. Another day we followed nine miles of muddy road from the end of one stone road to another, at a cost of one spill, and coming back we saw half a dozen tandem riders who had given up the attempt to get even to the end of the stone road just because it was a little slippery. However, we don't go hunting up muddy roads as a general thing. "My wife won't let me."

EXCELLENT MILEAGE SHOWING.

Of course, it is our low gear that puts us through the bad places and up steep hills. We could do no better than others if we had to use the high gear for everything, and I do not expect ever to buy another single-speed machine or one with pedals. What good are pedals, anyway? They are all right on a bicycle, but are out of place on a motor. They make the poorest kind of a foot rest and you can't do anything by pumping with them, as every body knows. Our machine has a good braking system and the foot-starter is far handier than pedals. When a pedal machine goes down you bend the cranks, but foot boards fold up.

Our machine carried the three of us over 2,300 miles the last season, 500 miles of it being on a trip from Detroit, Mich., to Fulton, N. Y. We made the run from Cleveland to Buffalo in nine and one-half hours. I'll bet my gear has been changed oftener and worked harder than most of the others, and it has not given any signs of trouble yet.

I work the clutch with my foot and thus have a chance to change gears carefully at the same time with my free hand. By the way, I know a stunt that has even my foot-operated clutch beat. It is operating the clutch from a finger lever just in front of the spark grip. The Emblem rider, when he starts, has both feet on the ground and both hands on the handlebars, where they belong. I see the new Excelsior has adopted this system, and I guess some others have also. It's bound to come. I'm going to rig my own clutch to operate in this manner this winter, for I have made up my mind it can be done. This will give me the ideal control, namely, throttle and brake on left handlebar and spark and clutch on the other. The single rider can ride with one hand or most any old way, but when he gets 200 pounds extra on the machine it's real nice not to have to take either hand off the bars in bad roads or when starting.

Well, I hope to meet you on a tandem two-speed twin on the good roads around Buffalo in the happy days to come. By exercising my faith I can see the orchards in blossom now and hear the chug of my motor over the country roads. My machine is an Indian T. T. model, fitted with three-inch United States tires.

FLYERS USE MOTORCYCLES

THAT aviators regard the motorcycle as their most natural means of travel while on the ground, is proved by the fact that there is scarcely a big aviation camp in the country without its motor two-wheeler. The United States Army flyers and the Moissant International Aviators both have winter camps in Augusta, Ga., and these birdmen use motorcycles at every opportunity.

SIXTEEN additional motorcycles have been purchased by the police department at Cincinnati.

OILING THE CHAIN.

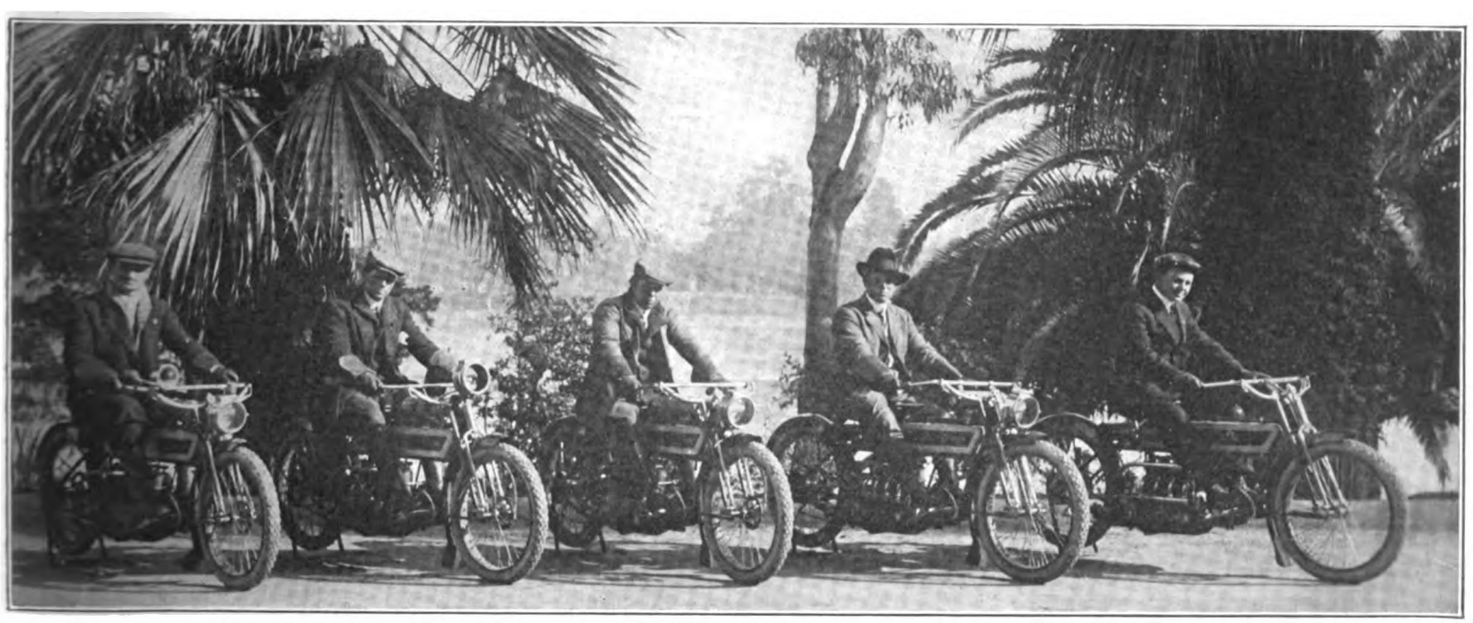
MORE motorcycle drive chains are ruined through improper lubrication than through any other cause. A common practice is to pour oil over the outer surface of the chain while it is on the machine, incidentally pouring considerable oil on the sprockets and rear wheel. After the machine is started the surplus oil flies over the frame of the machine and the rider's clothing, giving rise to the claim that chain-drive machines are necessarily dirty. The oil remaining on the outside of the chain soon becomes a paste through the adhesion of particles of sand and grit. This paste not only effectually prevents any of the oil from reaching the wearing surfaces of the chains and sprockets, but also works its way in, having almost the same abrasive effect as emery. The result is a condition which will soon wear out even the best chain on the market. The rider says, "that chain is no good" and goes out and buys another equipment of chains and sprockets.

The only way to properly lubricate a chain is to take it off the machine entirely and soak it in gasoline until every particle of dirt and oil is washed off. Then put it into a pan of hot tallow in which has been placed a few spoonfuls of powdered graphite, and let the mixture soak in properly. Then remove the chain from the pan and wipe off all the exterior grease. Put the chain back on the machine and the lubricant which has worked into the rollers will oil the chain properly for about a month, when the process should be repeated.

FIRE AT GOODYEAR PLANT

FUMES of burning rubber greatly hampered the work of the firemen at a blaze which started in the reclaiming department of the Goodyear Tire & Rubber Company, Akron, O. The fire was caused by the explosion of an acid container.

A NEW garage with clubrooms above has been rented by the West Philadelphia Motorcycle Club, of Philadelphia.



LOS ANGELES POLICE.

IN the striking photograph above appear some of the members of the county police motorcycle squad of Los Angeles, Cal., with their new Henderson machines. These officers cover much territory and have established an excellent reputation. They have obtained satisfactory results in curbing speedsters and their machines are proving handy in many other branches of county and municipal service.

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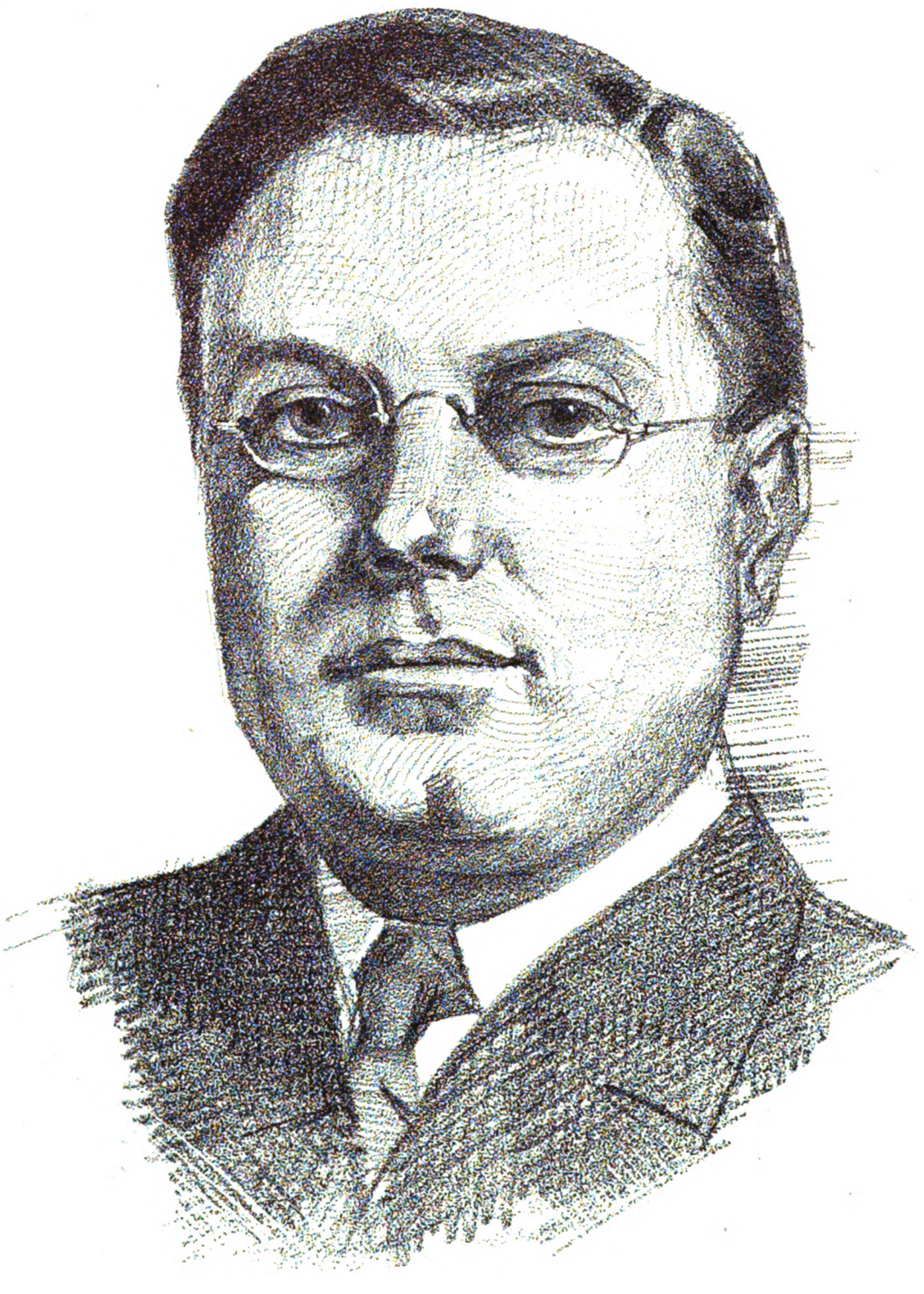

ALBERT LINDER POPE

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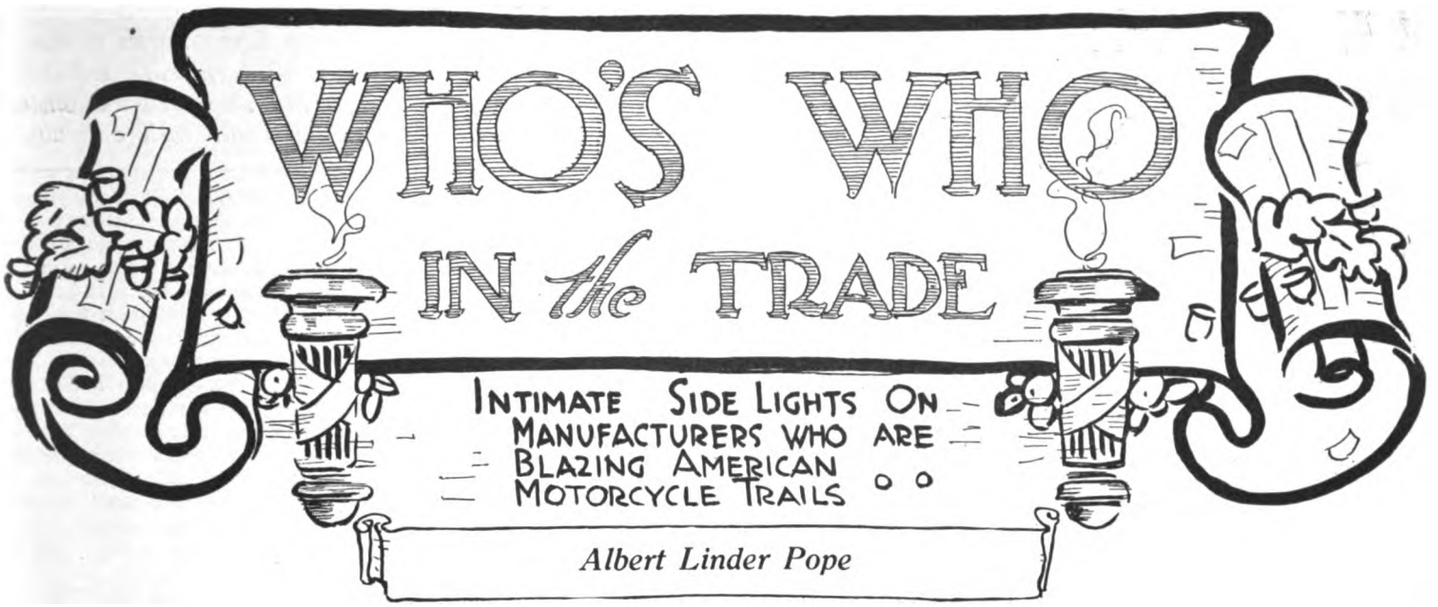

THE same qualities which enabled Colonel Albert A. Pope to make good as a gallant soldier, fighting for the preservation of his country, as a wonderfully successful manufacturer—promoting new modes of travel and transportation—and as a pioneer leader of the good roads movement, are responsible for the success of his son, Albert Linder Pope, under whose progressive management the Pope Manufacturing Company has become a leader in the motorcycle industry in addition to its other activities in the bicycle and automobile manufacturing fields.

As a boy President Pope was deeply interested in the great industries which his father was developing; as a man he has done much to advance and strengthen the Pope company's position in its various fields of endeavor. And in no branch of the business has President Pope taken keener interest than in the development of its motorcycle department. Perhaps he sees in the rapidly growing motorcycle business something more or less parallel to the bicycle boom. At any rate his views on the subject are wonderfully optimistic, and he looks for the development of a big and permanent motorcycle business.

PRACTICAL BUSINESS TRAINING.

During his long connection with the Pope company, Mr. Pope has occupied various positions from factory workman to posts of great responsibility in the sales and executive end of the business. After the boy left school his father put him to work in the factory at Hartford, where he spent a year learning the practical details of bicycle manufacturing. He worked on exactly the same basis as any other man in the factory, starting at 7 o'clock in the morning and keeping regular factory hours. This thorough mechanical training has since stood him in good stead, giving him an insight into the problems of factory management and production which he could have acquired in no other way. The first position of large responsibility to be held by Mr. Pope in his early career was manager of the Pope company's wholesale and retail bicycle branch in Boston. In 1897, he was promoted to be secretary of the company at Hartford. Two years later when the original Pope company was absorbed by the American Bicycle Company, he became manager of the Columbia sales department.

After the Pope company's subsequent withdrawal from the trust and its complete reorganization as an independent company under the presidency of its founder, Mr. Pope became vice-president. He succeeded to the presidency of the company shortly after his father's death in 1909. As head of the Pope company, Mr. Pope's influence has always been used for the best interests of the trade as a whole. He has been a director of the National Association of Automobile Manufacturers for a number of years, and has been selected to head some of its most important committees. He has a wide acquaintance with manufacturers and with business men in the automobile, bicycle and motorcycle trade throughout the country, many of whom have had dealings with the Pope company for a quarter of a century or more.

A STRIKING PERSONALITY.

Mr. Pope's associates characterize him as a man of sound business principles and unerring judgment. Of powerful physique and dynamic personality, he has a vigorous, energetic way of doing things which makes him an ideal executive for an industry that is moving fast like the motorcycle industry. He is direct, frank, and outspoken in his manner; forceful in expression; quick to make up his mind, and discerning in his judgments of men and affairs. Persevering and progressive in everything he undertakes, there is a strong undercurrent of conservatism in his nature. In shaping the company's policy he has been both broad-minded and far-seeing. In all his personal and business dealings, Mr. Pope is known as a man whose word can be depended upon.

With his early training in the bicycle business, it was quite natural that Mr. Pope should ultimately focus his attention on the motorcycle and concentrate his energies on this branch of the business in which he has so much faith. All his life he has been a great believer in out door life and recreation. He has been an enthusiastic bicyclist, and still rides occasionally. Yachting and automobiling are his favorite recreations, however. His tremendous interest in the motorcycle is not merely a matter of business policy but springs from his innate love of all outdoor recreations that promote the health and happiness of its devotees. He believes in the motorcycle because it appeals to a fundamental trait in human nature—the desire to travel further and faster just as the automobile does.

HOW THE BUSINESS WAS FOUNDED.

The great business over which Mr. Pope now presides was begun in Boston at Dock Square just after the close of the Civil War with $900 which Colonel Pope had saved from his soldier's pay. The Pope Manufacturing Company was not organized, however, until 1876. It was first interested in the handling of small patented articles, among which the air pistol was a leader. Just at the time more business was needed, the management stumbled upon the bicycle. In 1876 Colonel Pope went to the Centennial Exposition at Philadelphia where he saw a bicycle for the first time and was fascinated with its possibilities. In the bicycle he saw his opportunity. Assisted by an Englishman, John Harrington, with whom he had had business dealings, the first bicycle made in America was subsequently constructed for Colonel Pope at a cost of $313. It had wooden wheels and iron tires, which probably weighed more than most bicycles complete do today. Colonel Pope's first move in the bicycle business was to import some English machines. During its first year the company disposed of ninety-eight bicycles and in the following year its sales jumped to eight hundred. Most of these wheels sold in and around Boston where Colonel Pope had established a school of instruction in bicycle riding.

THE POPE LINE OF TODAY.

The Pope motorcycle line has grown with great rapidity since the production of the first Pope model so that it now embraces a twin and three singles—an achievement of which Mr. Pope is justly proud. At the recent motorcycle shows, dealers were genuinely surprised to see what the Pope company had accomplished in a comparatively short time by reason of its long experience, its completely equipped plants, its splendid organization, and its large resources. From the first, Mr. Pope was determined that the Pope line should be a leader and that "Pope Quality" should mean as much to the motorcyclist as it does to the bicyclist and the automobilist. To that end he has spurred his organization on to its best efforts, and the results satisfy him—as nearly as anything can satisfy a man who is always looking ahead to still bigger things.

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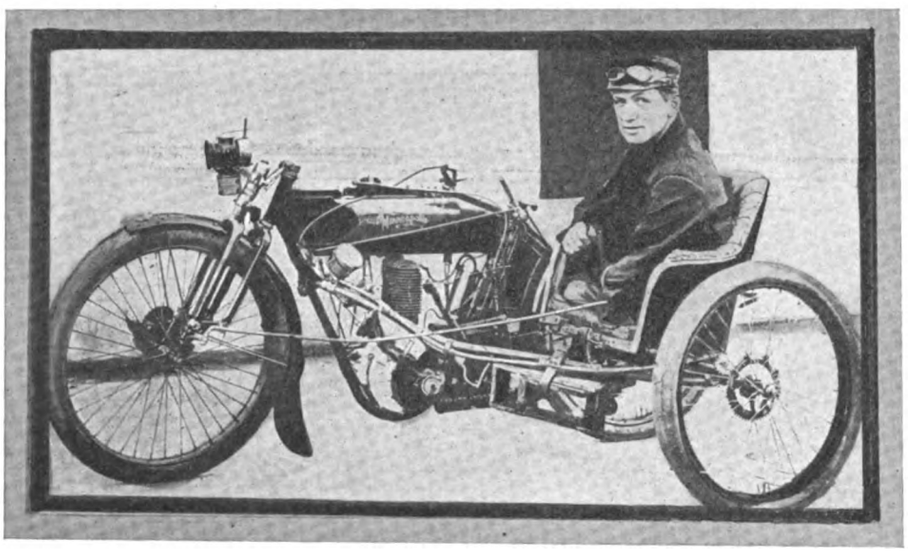
WHAT THE SIDECAR MEANS TO A CRIPPLE

Graphic account of a trip from Los Angeles to San Francisco and return on which the rider, legless and with only one arm, managed his motorcycle and sidecar in sand and on heavy grades with little difficulty

By ALFRED LE ROY

THIS is the story of my trip in a Minneapolis sidecar from Los Angeles to San Francisco, along the Pacific coast for about 500 miles. It was made last August in three successive days. I traveled along the coast road, known as El Camino Real, the old mission highway laid out by the padres over a hundred years ago to connect the string of twenty-two Catholic missions on the California coast. As California is mountainous there are many passes on this route, some of which, like the Casitas, have very sharp turns and steep grades.

As I have but one arm and have lost both legs, I was obliged to have a 4 h. Minnie fitted up so I could work levers with my good right arm and steer with the stump of my left arm, and in this way I was able to hit the road at good speed. I left Los Angeles for San Francisco on a Tuesday morning about 6 o'clock, with my Minneapolis geared about 5 to 1 on the high, as I had no way to get through sand or up the steep grades except by the power of the machine alone. I started the engine by putting the machine on the regular stand; then with high gear in I would turn the crank with my right hand. Of course, my right arm is naturally stronger than the average right arm on account of being my only "weapon."



Albert LeRoy in the Sidecar with Which He Made His Tour.

SOME DIFFICULT CLIMBING.

About seven miles out I fouled the spark plug and changed it and then the new plug became dirty, too, and I had to change that. From that time on, over Cahuenga, Calabasas and Conejo passes and the country between, I made good time and was in the little Mission city of Ventura (Santa Buena Ventura), seventy-three miles out, at 9:10 a. m. Here I stopped long enough to replenish my gasoline and oil supply and then started on for Santa Barbara, the next Mission city, thirty-six miles distant, including the eighteen miles of mountain roads in the two-summit Casitas Pass. Each of the summits has a three-mile climb and there is altogether about nine miles of uphill work, averaging from ten to twenty-five per cent. No single-cylinder motorcycle has ever climbed these grades without the aid of pedaling unless it was a two-speed machine, while lots of 7 h. machines do not get up without pedaling and even some two-speed machines stall on the sharp turns.

I made the run betwen Ventura and Santa Barbara in an hour and fifty minutes, which is faster than most automobiles make it. I had to have some repair work done in Santa Barbara and while Fred Lowe, the Excelsior agent, was doing this for me I got lunch. Then after putting in more gasoline and oil, I beat it out of town towards Gaviota Pass, some thirty odd miles up the coast. This run along the Pacific from Santa Barbara to Gaviota pass is strenuous, as there are over sixty small canyons to cross. The railroad along here has high steel trestles over these canyons, but the highway winds through the canyons, some requiring a half-mile of travel to cross. And at most of them are steep grades, where low-speed work was necessary.

I forgot to state that in the Casitas Pass, where I got stalled at one place, I broke my stand and therafter had to start by coasting on a down grade to get engine going. The stand was repaired at Santa Barbara. In the Gaviota Pass I took the new road through the great San Julian Spanish grant and came out at Lompoo, instead of at the Old Santa Ynez Mission, near the town of that name. This new road was very fine much of the way. In the Gaviota I had to use low speed for four miles at one time.

GOOD MILEAGE ON SECOND DAY.

On reaching Lompoo, a small interior town, I had covered 176 miles and so concluded to stay overnight there. Here I was a curiosity and the boys at the garage took me under their care and kept me going till midnight having a good time. They fixed my goggles, which I had broken, filled up tanks and would take no money.

On the second day I did not get started until about 8 o'clock, and got out of town on the wrong road. I finally reached Santa Maria, the next big town, over steep grades, having gone over the new Gloriosa grade to Orcutt. There was three miles of low-speed work and then I ran down so steep a grade that I had to stop and cool my brakes.

It was about ten o'clock when I rode into Santa Maria over good roads. I only stopped here for gasoline and oil and then went on without delay to the Mission city of San Luis Obispo, where I had noonday lunch. At the Emblem and Excelsior agency, where I stopped for supplies and some slight repair work and adjustments, the agent would not accept any money from me.

A few miles out from San Luis Obispo is the long climb up the south side of Cuesta Pass, where I had plenty of low-speed work, but a glorious coast down the north side from the old watering trough, most of the way into the little village of Santa Margarita. Without stopping I flew over the fine road through the natural park of the long pass of the Oaks (Paso del Robles), and was soon in Templeton, another small town, where I paused to get some soda water, as it was warm and at times a little dusty. The rest of the beautiful road into the little city of Paso Robles, famous for its wonderful baths, was soon covered and here I pulled up at Henderson's new garage, opposite the big hotel about 4 p. m. Here I had to have my clutch fixed, as it was slipping, and then with fresh supplies I started on for the next Mission town, which was San Miguel. I was making fast time and so did not stop here, but went on to Bradley, which I reached about 5 o'clock, and as I had covered 120 miles for this second day, I was satisfied to stop overnight here. I had had a hard time getting through the sand of Salinas River at the long ford, which was dry.

SILENCING A TEAMSTER.

At Bradley I met a fellow who was doing a stunt with two dogs hauling him in a cart. As there was but one small hotel and only one room left in that I had to double up with the "dog man" or sleep in the barn. The performer had taken ten days to get this far from San Francisco, 200 miles, which I was to cover on the morrow in one long day. The world-famous Salinas wind was blowing. It has a sweep of nearly 200 miles down this valley, starting off the sea in the Monterey Bay country. In the night I thought the little hotel was going to blow down.

Thursday morning I was up early, to be ready for the 200-mile run into the metropolis, and at 6 o'clock I was on the road. By 8 o'clock I was in Jolon, the little old town in the San Antonio Hills, four miles from the old mission of San Antonio de Padua, having averaged about 20 miles an hour. As I had been having my gasoline feed pipe leak I had it soldered here. I had breakfast there and then lit out again northward.

Before reaching Gonzales, where the highway and railroad run side by side through the Salinas valley, a train overtook me and I had a race with it that lasted most of the way

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to the city of Salinas, where the train got away from me. Between Soledad, where there is a Mission ruin, and Salinas I had a tow with a teamster driving a six-horse team. I did not want to shut off my engine there in the sand and have a hard time starting again, but the driver insisted that I stop my engine and he was going to beat me up if I did not. I got out my little old gatling gun and he decided to let me alone. The horses shied some and that was all.

It was about 11 a. m. when I reached Salinas, making about 90 miles for the five hours I had been on the road, with considerable sand work. As it was so near noon I ate lunch and was on the way north soon afterward. The much dreaded San Juan grade, which is as steep as 25 per cent. in places, and often 20 per cent. for long stretches, delayed me some as I had to stop to cool the engine. On the down grade I had to stop several times to let the brake cool off.

IN SAN FRANCISCO.

I was at San Juan Beautiste Mission at 2:30 and had two punctures to fix here. My chain had been too loose and had climbed the sprocket on the counter shaft coming down the grade and thus broken a lot of the teeth, but I tightened the chain as much as I could and finished that way.

The next stop I made was at San Jose for gasoline and oil, and then I went along the shore of the great San Francisco Bay and reached Oakland, which is the Brooklyn of 'Frisco. At 6.30 I was at the Oakland ferry, which is out on the mole, and about 7 p. m. I was in San Francisco, having covered 496 miles in three riding days. I don't think this was bad for a man without legs and with but one arm, and I had not been over any part of the road north of Gaviota Pass. On the trip I averaged about 60 miles to a gallon of gasoline and used about eight gallons of fuel and about two gallons of oil.

On the return trip I left San Francisco on Friday at 3 p. m., figuring on the moonlight and riding all night. All went well and I was in San Miguel, the old mission town, at 6 o'clock the next morning, having covered 211 miles in the fifteen hours elapsed time. Here I took a short sleep and by 8 o'clock I was on the road again, reaching Paso Robles in 45 minutes, where I stopped only for gasoline and oil. Soon I was enroute for San Luis Obispo, which I reached at noon; there stopped for lunch. San Luis Obispo was left on Saturday at 12.30 p. m. and the 32 miles to San Maria were covered by 2.45, as I was now taking it easy after the long all-night ride.

Leaving the old city of Santa Maria, I followed the Foxin canyon pass route to Los Olivos and then went past Santa Ynez Mission into the Gaviota Pass by the regular route and was at Gaviota railroad station on the ocean shore at 6.30. I rode into Santa Barbara at 9 p. m. where I put up for the night. On Sunday morning I left Santa Barbara at 5 a. m. and at 10.30 I had covered the 109 miles into Los Angeles, including the five mountain passes on that section of the coast road. Thus between Tuesday and Sunday mid-fore noon I had ridden about 1,000 miles.

C. D. CLAPP, JR., of the Union Supply Company, 231 Superior street, Toledo, Ohio, reports the loss of his 1913 Indian motorcycle. Mr. Clapp offers a reward of $25 for its recovery. The motor number is 70E554.

CHIEFS IN POW-WOW

Department Heads of Indian Wigwam in Springfield Gather for Interesting Program and find "Heap Much" Good Fellowship.

UNDER the innocent sounding title of "Twenteith Century Progressive Club," department heads of the Hendee Mfg. Co. get together when the spirit moves them for a non-stock pow-wow. After a month of passiveness, the spirit became active again recently, and despatch bearers were sent out to assemble the little chiefs on Saturday night, February 15. Tepee 12 of the Highltnd Hotel was the rendezvous, and 11 of the little chiefs were on hand. After a hearty council of war, it was decided to admit the publicity-man of the Big Chief, on condition that he behaved and permitted his report to be censored before posting it on the totem poles. For the benefit of late coming chiefs, Indian pennant confetti was scattered liberally through the hotel corridors leading to Tepee 12. However, this confetti proved very popular with paleface merrymakers, and they filched it when the warriors were in council assembled.

Gene Madden occupied the sachem's stump, and Charlie Spencer officiated as medicine man, with P. C. Johnson as the pale-face captive to be tortured. Johnson withstood all tests of courage and bravery and was welcomed to the inner circle.

The 1913 Indian war dance, which is the fantastic conception of Spencer, and has modern Terpischore out-terpsichored, was executed by the chiefs in full regalia. After tomahawks and scalping knives were sheathed, corn, venison and fire-water were set before the chiefs.

A NEAR ARCTIC TRIP

O. W. FULLER, Yale traveler in New England, has been forced to do some riding of the Arctic variety of late, and the accompanying photograph shows him in the act of demonstrating the good points of the Toledo product for the benefit of a prospective buyer at Waterville, Me. The thermometer registered 20 degrees below zero at the time and the streets were covered with well-packed snow. Despite these handicaps Fuller landed his sale.

PITTSBURGH SMOKER

A RECENT smoker brought out forty members of the Pittsburgh (Pa.) Motorcycle Club. Club meetings are held every other week and the officers are endeavoring to hold some social event between meetings to keep up interest until the riding season opens. E. B. Connell, a prominent member of the club, has left the city, and Mark Dornberger has been appointed to take his place on the membership committee. W. T. Gregg succeeds him on the house committee.

A NEAT DELIVERY VAN

IN the accompanying photograph appears a motorcycle delivery van, designed and built by P. E. Gottschalk, agent for the American Motor Co., in Waseca, Minn. Unusual interest attaches to the outfit at this time owing to the fact that it has been constructed with a view to meeting the special requirements of parcels post delivery. Gottschalk has provided over forty pockets for carrying parcels, and in addition there is considerable room for general mail matter. In spite of this orderly arrangement and the large number of parcels that can be carried the van is very compact and attractive in appearance. It has given excellent service over all kinds of roads and its designer is justifiably proud of the showing it has made. All in all, this outfit is one of the most ingenious that has so far come to notice in connection with mail delivery work.

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ON F·A·M· LECTURE TRAIL

Federation Traveler Addresses Enthusiastic Meetings and Finds Clubs Anxious to Co-operate with National Body—Interest Runs High in Membership Campaign.

SAVANNAH, Ga., March 4.—When Director Sauer arrived here this afternoon on his transcontinental F. A. M. lecture tour he was met at the station by a committee made up of Secretary J. S. Cafiero, of the Savannah M. C.; G. R. Coe, of the United States Tire Co.'s Savannah branch; Martin Schroeder, vice-president of the club; John Waters, of the club's executive committee, and O. A. Meyer, chairman of the publicity committee. The F. A. M. Traveler was given a rousing reception.

Arrangements have been completed for a big meeting to-night, and it is likely that at least eighty new memberships will be turned over to Mr. Sauer, thus putting the club in the first rank of contenders for the handsome F. A. M. cups. The meeting will be held in the club headquarters in the Savannah Banking and Trust Building. Prior to the session there will be a fish supper at the Casino, and entertainment features will follow the meeting if there is sufficient time.

NORFOLK CLUB STARTS BOOM.

NORFOLK, Va., March 3.—The meeting addressed by Director Sauer in this city tonight was well attended and the F. A. M. official expressed the opinion that it was the best result-producer so far encountered on his schedule. Many new memberships were received and the club was affiliated with the Federation. The latter move places it in a position to take steps looking to the reduction of the ten-dollar city tax which the riders are now obliged to pay in additon to a state tax of two dollars.

Eph Ball, one of the city's most active dealers, was in charge of arrangements for the meeting. Unusual enthusiasm was manifested in connection with plans for the state tour which is to be held at the time of the state F. A. M. assembly. A two-day race meet will also be staged and there are indications that the general program will be one of the most successful ever carried through in the East.

BIG SESSION AT RICHMOND

RICHMOND, Va., March 2.—A splendid meeting was held here on Saturday night at which Director J. Leo Sauer addressed local motorcyclists and riders from neighboring towns, and there was no end of enthusiasm on tap. President Tompkins and State Commissioner Ewell were in charge of the session. Plans were taken up for a big tour and a state convention to be held in Norfolk May 27-31. Motorcyclists in Richmond, Norfolk, Roanoke, Portsmouth and Charlottesville have joined hands to make the state convention a big success.

WASHINGTON PROGRAM

WASHINGTON, D. C., February 28.—An interesting entertainment program was carried out in connection with Director Sauer's lecture, which was given under the auspices of the National Capital M. C. in this city The speaker outlined F. A. M. policies and answered a number of questions, and at the close of the session he expressed himself as satisfied with the manner in which the motorcyclists of the city had received him. There was an unexpectedly large attendance at the meeting, and the program throughout scored a hit.

FIRST MEETING IN BALTIMORE

BALTIMORE, Md., February 27.—The transcontinental lecture tour and membership campaign of J. Leo Sauer, chairman of the Legal Action Committee of the F. A. M., began in this city last Thursday night with an address before a large and enthusiastic assemblage of motorcyclists. The meeting was held in the assembly rooms of the Automobile Club of Maryland and was under the auspices of the Maryland M. C. With rain pouring down Mr. Sauer said that he would not expect many to attend, and he was agreeably surprised when he found nearly two hundred men waiting to hear his address.

Preceding and following the addresses entertainment was provided in the way of moving pictures of the automobile and motorcycle races at Laurel, Md., last fall. A pianist helped to pass away the time, while the Indian quartette had a new stock of songs to spring on the boys. Mr. Sauer was pleased with the entertainment features and he told the members of the club it was a good way in which to get the riders together.

Presiding over the meeting was Howard A. French, who made some characteristic remarks in introducing President Frank Boyd, of the Maryland M. C. Mr. Boyd proceeded to give a history of the club and tell what it has accomplished in this section for the motorcyclist. Mr. Sauer followed him, and that nothing was missed became obvious when, after he had finished, he became the target for a rapid fire of questions pertaining to the work of the F. A. M. and motorcycling in general.

Mr. Sauer's address in part was as follows:

"Last fall, at the meeting of the board of directors, I made an alleged disparaging remark anent our good friend Howard French. It offended him and was taken as a piece of sarcasm. Someone made the remark that it was 'Sauercasm,' and I was forthwith sentenced to two months at hard labor. Tonight I begin the serving of my sentence. I selected Baltimore as my initial stopping place because I believed it was a good city in which to start, and the enthusiastic reception which has been accorded me proves that I was right. It is my hope that there will be as much enthusiasm manifested along the rest of the long and arduous journey across the continent and back.

"My purpose in visiting you is to explain certain things about the F. A. M. and bring all its members throughout the country into closer contact with the organization. I come among you to invite criticism and to answer it. There has been, first of all, considerable comment anent the expense attached to the meetings of the board of directors. Our meetings cost money, it is true, but it cannot be avoided.

"Take our meeting in St. Louis recently. It was rather expensive, because we had to journey to that city, due to the fact that the president was unable to come east. But you, gentlemen, do not know that we spent an entire day and part of the night in one room working out problems for your interest, going so far as to have our meals sent up so that we would not lose any time. The directors neglect their personal business to attend these meetings in your interest, and their expenses naturally should be paid. In a good many cases, however, the meetings cost little, as the members happen to be in the city at the time on business of their own and then do not charge a cent for expenses.

"You might suggest that correspondence would answer in performing our duties, but we have found this method unsatisfactory. Men have different opinions, which is natural, and the writing of letters fails to accomplish anything. By meeting around a table in one room we are able to talk matters over calmly and arrive at a definite solution of our problems in a short time. The value of these meetings is seen when I say that decisions in nearly all cases are by unanimous vote.

"An important matter I want to speak about is the holding of state conventions throughout the country. They are needed and they will accomplish some wonderful things. The annual convention is almost purely a local affair, as motorcyclists throughout the country have not the time and money to make a long journey. To solve this problem we should have state conventions, held once a year in the principal city in each state. I would suggest that the F. A. M. elect one of its officers to make a tour of the country beginning in June, and visit all the states, arriving in time for all the conventions and meets. He would cooperate with the local organizations and in this way the members of the national body would enjoy the same advantages as if they had attended the national convention.

"I am informed by your state commissioner, William Wood, that you will meet on March 11 to form such a state organization, and I sincerely wish you success. Co-operation like this is what is needed in this big movement. 'United we stand, divided we fall,' is a true axiom and well applies to motorcycling.

"I have another suggestion to make regarding our touring bureau. This is a new undertaking and we have already about four hundred routes which are ready for motorcyclists at any time they want them. Now, I would ask that each one of you, as you go about the state, made a few notes on the trips you make, and some time next fall sit down and prepare a

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route for us. This is not a difficult matter and you will thereby be supplying information for your fellow motorcyclist, who, by preparing routes himself, will be giving you the opportunity to seek new byways to explore."

SCHEDULE ALMOST COMPLETE

WITH the exception of meetings in Texas, for which arrangements had not been completed at latest reports, Director Sauer's schedule is now approved as far as Chicago, from which point he will make a jump directly to New York City before going out on the second leg of his tour through New England and into the Middle West.

Arrangements for the Atlanta, Ga., meeting on March 5, and the Birmingham, Ala., meeting on March 6, were handled by L. S. Crane and W. E. Johnston, in the former city, and by W. D. Gresham in Birmingham. Reports received just prior to going to press were to the effect that rousing meetings would greet the Federation traveler in both these cities.

As has been stated above, the arrangements for lecture meetings in Fort Worth, Dallas and San Antonio were still in progress at latest reports, and the same conditions obtained in Oklahoma City, Okla. On March 20 Director Sauer will speak before the San Francisco M. C., and it is likely that a special session of the Oakland club will be arranged for the following evening. Satisfactory plans have been made for the meetings in Portland, Seattle and Spokane on March 24, 25 and 26, respectively. It is reported from Salt Lake City that a big meeting will be held on March 28, at which the Federation transcontinentalist will be welcomed. Denver and St. Louis are also in line, and energetic F. A. M. boosters are handling arrangements in these cities for the sessions at which the Federation representative will speak.

RECOLLECTIONS OF LEBANON VALLEY

Impressive vistas and panoramic views of striking beauty feature section of the Berkshires which abounds also in historical interest—Observations on early history of Lebanon Springs, once popular with wealthy recreation seekers.

BY OLD TIMER.

THE article in your issue of February 20, "An Ideal Tour in the Berkshires," brings to mind a section that I walked over and traveled on horseback a great deal before the days of motorcycles. In that way I formed a closer acquaintance with it that the occasional traveler could possibly do, and naturally studied also its historic and scenic features. Perhaps some of the very many of your readers who will sooner or later go over that route, may be interested to have a few notes from the standpoint of an old timer who, by the way, is not too far along in years to enjoy the motorcycle.

Speaking of Columbia Hall at Lebanon Springs: This hall stands on an eminence overlooking the Lebanon valley south and west for miles, and the views from the top are exceedingly picturesque. Toward the west the valley stretches away in fertile beauty to the village of Nassau on the way from Albany. Maple Hill, on the southeast, rises with an easy slope from the pretty village, and a mile southward is New Lebanon. The Wyomanock creek flows through the valley, blending its waters with the Kinderhook, on the way to the Hudson. You are now on the western slope of the Taconic mountains, whose many peaks divide the valley from the Housatonic, and are plainly visible on the east; on the west another range of hills adds greatly to the beauty of the outlook.

AN IMPRESSIVE VIEW.

From the summit of the mountain the country, more than sixty miles in extent, presents itself like a map at the feet of the beholder. Here on a clear day the distant Catskills may be seen from the Helderbergs, west of Albany, to the Sugarloaf, far below Catskill village. The Catskill Mountain House can often be plainly discerned by the naked eye, and the stretches of the Hudson river traced, with the steamers and sailing vessels passing upon its waters, looking like miniatures in fairyland. From a point a little distant from the highway a good view of the upper part of Albany can be secured, and with a field-glass even some of the buildings can be recognized, especially the State Capitol. From Perry's Peak, a nearby station of the United States Coast Survey, there is also an uninterrupted view across the State of Connecticut and Long Island Sound.

The history of the discovery of the place is an interesting one. Capt. James Hitchcock in 1760, after the French and Indian War, was garrisoned among the Stockbridge Indians. By kindness he gained their friendship, and when they perceived that he was suffering from a skin disease, they carried him to the "medicine spring," as they called it, and remained there with him until he was cured.

Charmed with the location, he marked the spot, and when relieved from service, collected a colony and occupied the country immediately surrounding the springs. A grant covering this land was made by the General Court of Massachusetts in 1765 in favor of Ephraim Keyes, who conveyed it in turn to Charles Goodrich. The narrow strip of land extending along the western slopes of the Berkshires was then in the State of Massachusetts, and not until 1787 was the true boundary determined.

ONCE A POPULAR RESORT.

After the Revolution, the "Springs" became the resort of many wealthy people from New York, Boston and the South, who not only filled the hotels in the town, but were often quartered on the hills, until it was said that every house for a distance of ten miles in every direction was filled, and whole stage loads were at times unable to obtain accommodations. In those days the stage horn could be heard at all hours of the day and night, and a tavern at the foot of the hill leading to the Spring was the winter rendezvous of the stages. There still stands the famous old elm tree under which runaway couples were married when the Massachusetts laws made New Lebanon the Gretna Green of all that region. The old tree had a platform about fifteen feet from the ground, where ten persons could stand comfortably, and from which a fine view could be had.

After the building of the railroad and the discovery of other springs, north and west, the tide of travel fell away, and this resort lost most of its former popularity. Of late years, however, this old-time standing is coming back, and the magnificent views, charming drives and healthful waters have co-operated to restore some of the former color and fame to the place. In the olden days, no important visitor from the other side to the United States was held to have thoroughly seen the country until he had visited Lebanon Springs. General Lafayette came in 1824, as the old registers show.

OVER LEBANON MOUNTAIN.

Mrs. Trollope, Harriet Martineau and Charles Dickens have written their impressions of the locality. Willis and Bryant have also dwelt upon the same theme. Henry Vincent, an English writer, says of the locality: "Hills, mountains, valleys, trees, gardens, farm houses and farms spread around and above you, in ever-varying beauty, reminding one of Llangollen, in Wales."

Passing from the village of Lebanon Springs to the summit of Lebanon Mountain (2,624 feet high) and looking back, you see the opposite range all the clearer for the additional height and distance. The roads wind in and out, following the contour of the land, and affording the traveler a view, or rather a series of views, of hills and valleys such as can rarely be found. You look over the valley of Lebanon into the Green Mountains of Vermont, the view embracing the Shaker settlement, with its well-kept buildings and thrifty acres—over the village of Lebanon Springs, surrounded by its sloping hillsides marked out in squares—a perfect checkerboard of fields of different colors.

Observe the topography carefully and you will see that the descent into Pittsfield from Lebanon Mountain is like the descent from one saucer into another—now you see the city, now you don't. Sometimes it seems as if you were back again in the hill country, but on gaining another eminence the city is at your feet, or just ahead of you; then you lose it again just as mysteriously. Looking ahead at one point your vision along the road is absolutely cut off by a large clump of willows, and it seems as if to get into Pittsfield, you would have to sail over the top of them. However, as you reach them you see that in order to preserve these trees, the road has taken a divided course, coming together just beyond.

The Berkshire hills offer the most delightful touring opportunities to be found anywhere in the Eastern States. They are easily accessible from either New York, Albany or Boston by a generous variety of routes. They have good roads, romantic and beautiful scenery, and old-fashioned, well-kept inns.

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ECLIPSE

The Brake You Can Trust

More than one hundred square inches of braking surface!

A square inch for every 3½ lbs.

What more positive assurance of ABSOLUTE SAFETY can the rider require than the knowledge that his brake is stronger, proportionately, than the most powerful automobile brake made?

Figuring the average machine and rider to weigh approximately 350 pounds, that allows a square inch of braking surface for every 3½ pounds weight. No automobile brake made is proportionately as strong as the Eclipse Perfection Multiple Disc Brake.

This brake differs is design from previous Eclipse Brakes, in fact it is different from any other brake yet made.

The Brake operates on the multiple-disc idea, similar to the Eclipse clutch. The discs are mounted on one side of the hub, instead of inside it. There are six discs 5¼ in. in diameter.

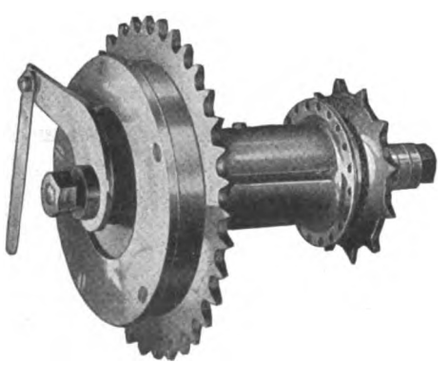
The bearings contain ⅜-inch balls. Lubrication is a matter that will require little attention, for the hub can be packed with hard oil at the start of the season and this supply will last the entire year.

The Ideal Brake for Sidecar Riding

The great working surface and simplicity make this brake fine for heavy service, such as sidecar work. No matter what momentum the outfit may attain, the Eclipse can and DOES absolutely annul the most terrific speed and brings the machine to a quick halt.

Dealers should stock heavily.

Eclipse Machine Company



Elmira N. Y. U. S. A.

H. T. ROBERTS, Selling Agent, Railway Exchange Bldg., Chicago

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CIRCULATION THIS ISSUE MORE THAN 14,000 COPIES.

IMPORTANT.

OWING to its large circulation, it requires two full days of 24 hours each, after the last form has closed, to print, bind and mail a full edition of MOTORCYCLE ILLUSTRATED. In view also of the fact that this publication is read in more than 2,400 different cities, towns and villages in the United States, its wide distribution demands that each issue be placed in the mails not later than noon every other Thursday, the date of publication. In order to make the mails at this time, forms must close not later than 6 p. m. Tuesday, and advertising copy cannot, therefore, be handled if received later than Tuesday morning.

RECEIPT OF TEXT MATTER.

This applies also to text matter. Photographs should reach us not later than Monday morning preceding each date of issue. They will be given better attention, however, if reaching us the Saturday preceding.

CORRESPONDENCE.

MOTORCYCLE ILLUSTRATED requires correspondence and subscription agents in many towns where the paper is not already so represented; we pay a liberal commission to subscription agents, and the best space rates for quality, text-matter, drawings and photographs.

PHOTOGRAPHS.

Drawings, photographs and manuscript not suitable for publication will be returned if sufficient stamps are enclosed for the purpose. In every case, photographs should be plainly marked, so that they may be properly identified.

BUILDING A GARAGE

ONE of the most timely and interesting features of the March 20 number of MOTORCYCLE ILLUSTRATED *will be an article giving detailed directions for the construction of a home motorcycle garage, accompanied by practical plans. With the spring season almost at hand, the problem of housing a motorcycle is uppermost in the minds of many prospective riders, and experience has shown that the most satisfactory solution lies in the individual garage building.*

If you are a motorcyclist without a garage of your own, you will read this article with interest. Less than twenty dollars will put you in possession of a trim little building, designed to meet all your motorcycle requirements. The article above referred to tells how—and shows you.

There will be another ideal tour, outlined and illustrated by Robert Bruce, of the A. A. A. Route and Map Service, and the usual line-up of technical, news and departmental features with their accompaniment of sprightly pictures.

EDITORIAL VIEWPOINTS

"WE are anxious to obtain photographs of large groups of American motorcyclists," writes an English exchange. "On this side pictures of scores of riders lined up are very rare." There is something significant in this. We cannot claim the extended experience of English riders, but we are learning rapidly and appreciation of the possibilities of good fellowship, as applied to motorcycling, fortunately is a feature of our education.

THE PASSING OF A RACING PIONEER

WITH the passing of Jake De Rosier motorcyclists see brought to a close the most picturesque racing career the sport has known—or is likely to know. The conditions that developed the French-Canadian track wizard from a bicyclist to a motor pacing specialist and then to a motorcycle champion will not be experienced again. De Rosier grew up with the motorcycle industry in America and was a part of it. He contended against obstacles not encountered by the motorcycle speedster of today, and to a great extent blazed his own trail. He was a track general in instinct, a daring gambler against chance and a sportsman in whom the spirit of achievement was not quenched while life remained. To win from De Rosier, a competitor had to possess a faster machine. It was his proudest boast that he never sold a race; that he rode to win—always. Let that be his epitaph.

DEVELOPING OUR SIDECAR OPPORTUNITIES

DESPITE the fact that we have as yet done little more than scout along the frontier of sidecardom, and that our manufacturers—until the present season—have entered somewhat gingerly upon the production of the third-wheel attachment, we have been successful in convincing sidecarrists abroad that we can, in the parlance of the day, "deliver the goods." This is shown in the report of a prominent firm of American sidecar manufacturers that has on its list orders from points in Central and South America, the Hawaiian Islands and the Philippines, in addition to inquiries from Sweden, France, Australia and Japan. That inquiries and orders from these countries have been filed with American firms, when they could in some cases, at least, have been forwarded more easily to England—the recognized home of the sidecar—should be provocative of serious thought on the part of sidecar builders in the United States. Let us meet our opportunities halfway.

ENGLISH CYCLECARS FAIL TO OVERSHADOW SIDECARS

FOR some time past a debate of more than passing interest to American motorcyclists has been carried on in British motoring circles, anent the relative merits of the sidecar and the cyclecar, and it is noted that the former is not losing prestige through the comparison. This is significant in view of the predictions freely made some time ago in England that the newcomer would usurp all the prerogatives of the sidecar as well as those of the standard light automobile. That the cyclecar will make an appeal to a certain class of motorists who are impressed by its speed possibilities and its somewhat rakish aspect is to be expected, but we incline to the belief that the motorcycle sidecar—much after the manner of the poet's brook—will "go on forever," or as long, at least, as the demand of riders is for a vehicle that will combine maximum pleasure and exhilaration with minimum expense.

CLUBS ARE MEETING THE F. A. M. HALFWAY

LATE bulletins from Director Sauer, who began his transcontinental lecture tour in behalf of the F. A. M. at Baltimore, on the evening of February 27, indicate that clubs and individual riders are meeting every expectation in their readiness to enthuse over Federation aims and possibilities, and that there is full appreciation of the effort now in progress to afford them intimate, first-hand information concerning the attitude of the organization with which they have allied themselves. There is, in short, a spirit of fairness on the part of club officials and riders, a disposition to grant the F. A. M. reasonable leeway in its plans for advancement and a growing realization that, after all is said, the national organization must depend for its success upon the loyalty and energy of its units—the clubs.

TRUE enough, these are conclusions based upon the receptions accorded the F. A. M. traveler during only his first few days on the lecture route, but there are no good reasons for believing that these conclusions will lose pertinence as the trail leads westward. Clubs in the Southern, Southwestern and Pacific Coast districts, that have in the past complained of a feeling of aloofness from F. A. M. activities, will have the Federation doctrine brought to their doors and with it the knowledge that there is an earnest desire on the part of the national organization to be worthy of their loyalty and co-operation. It is only fair to assume that this spirit of the governing body will be met in kind.

AMONG the most noteworthy developments of the lecture tour are the reports received so far relative to booms in club membership. From cities several weeks ahead on his schedule the F. A. M. traveler has had bulletins to the effect that lively campaigns are under way with a view of capturing one or the other, or both, of the handsome cups offered by the F. A. M. One cup will go to the club turning over to the Federation representative the largest number of paid new memberships, and the other to the city in which the lecturer's meeting is best attended. National Secretary Gibson is being bombarded with requests for the leaflets telling of the methods by which the trophies are to be awarded, and it is already evident that greatly increased club memberships all along the line will be not the least satisfactory feature of the transcontinental lecturing program.

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DE ROSIER CROSSES the TAPE

Veteran speedster succumbs, following operation in Springfield Hospital—Had recently arrived from Pacific Coast in good spirits.

BORNE to his final rest by his five younger brothers, and sleeping almost in the shadow of the motordrome where thousands once cheered his brilliant victories, Jacob De Rosier, the greatest racing motorcyclist the world has ever known, was laid away in St. Michael's Cemetery, Springfield, Mass., Saturday morning, March 1. The great "Old Warhorse" succumbed to the third operation on his shattered left leg, at Hampden Hospital, Tuesday evening, February 25.

The name of Jake DeRosier was a by-word wherever motorcyclists congregated. His graceful style of riding, his masterful handling of a machine at the highest speed with no apparent sense of exerted effort, a courage, a daring, a determination and a generalship unequalled, were the qualities that made him the idol of his profession. Jake DeRosier wrote his name indelibly on the pages of motorcycle racing for over a decade, and his memory will endure as long as the sport itself.

DeRosier was born at Quebec, Canada, and was 33 years of age. His parents removed to Fall River, Mass., when Jake was four years old, and there he grew up. He took up bicycle racing at the age of 17, and became one of the best riders in that section. His unusual prowess quickly was recognized, and he was honored with the steersman's seat on a bicycle sextet team which gave exhibition races against a locomotive on a specially prepared mile course at Rocky Point, R. I.

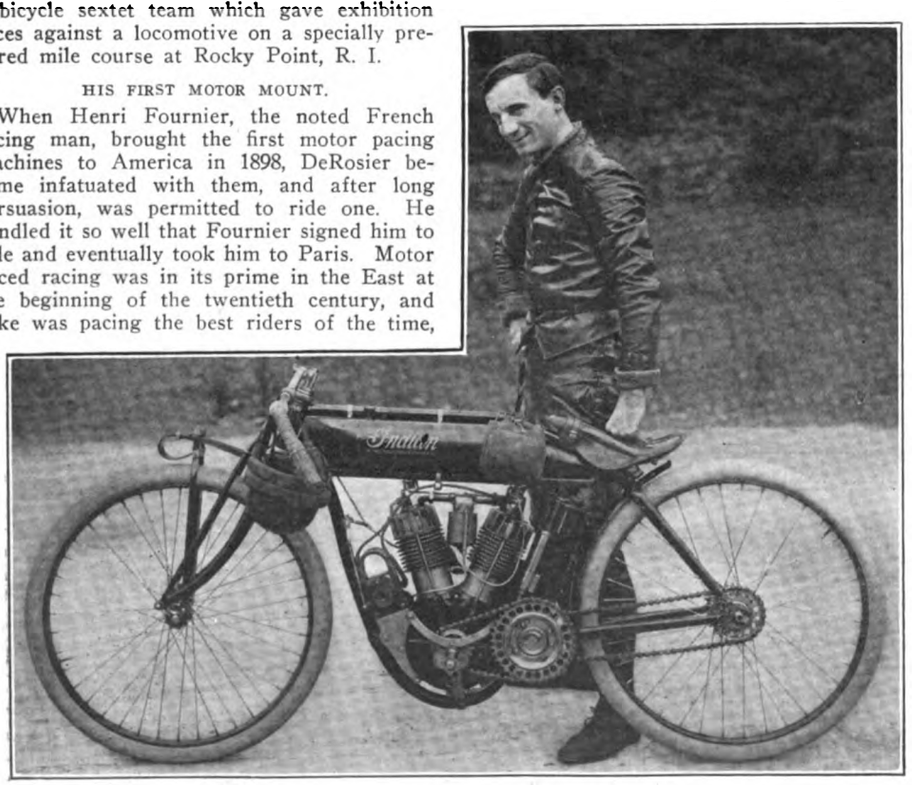
HIS FIRST MOTOR MOUNT.

When Henri Fournier, the noted French racing man, brought the first motor pacing machines to America in 1898, DeRosier became infatuated with them, and after long persuasion, was permitted to ride one. He handled it so well that Fournier signed him to ride and eventually took him to Paris. Motor paced racing was in its prime in the East at the beginning of the twentieth century, and Jake was pacing the best riders of the time, such as Jimmy Michael, Will Stinson, Harry Elkes, John Nelson and Bobby Walthour.

While pacing Nelson in 1901, Jake came in contact with Oscar Hedstrom, who was building pacing tandems at that time, and tried out some of the latter's machines. The following year Jake rode exhibitions at the Madison Square Garden six-day bicycle race on the first single-seat pacing machine ever built in America. During his pacing days Jake was under the management of F. Ed. Spooner, now an automobile photographer.

As most of his pacing work was on the New England circuit, which flourished at that time, Jake took up his residence in Springfield in 1901, and put in his spare time in a garage. Early in 1902, and shortly after the manufacture of the Indian motorcycle was commenced, Jake entered the factory and spent several months there. He now gave up pacing work, and became a well known figure at race meets and hill climbs on an Indian.

Although Jake left the Indian factory after a few months to become foreman of a local garage, he continued riding Indians, whenever he could obtain leave of absence. Although he rode in the F. A. M. national endurance runs of 1905 and 1906, he specialized on track racing, in which, even at that early period, he was a brilliant rider. Jake's pacing career was the school that laid the foundation for his wonderful rise to fame as a motorcycle racer in later years.



One of DeRosier's Best Photographs, Taken Just Prior to His English Trip.

ON THE INDIAN TEAM.

At the F. A. M. national meet at Paterson, N. J., in 1908, he eclipsed all the other riders in negotiating the steep six-lap track at high speed, and at that time became permanently attached to the Indian racing team. From that time on Jake's star shone brighter each week. He campaigned at all the board tracks, and soon became the acknowledged king of the professional ranks.

In 1909, at Los Angeles, Jake rode his first 100-mile record trial, a favorite distance of his, and established new records. During his career, he went the century several times at new record speed. Los Angeles was the center of motordrome racing in America and here he rode the majority of his races, and achieved his greatest American success.

Jake reached the height of his career in 1911. On February 7, at Los Angeles, in an attempt to lower his own 100-mile record, he established new marks from 2 to 92 miles, but was robbed of further laurels by his gasoline tank running dry. This phenomenal performance was made without a stop, at an average of 43⅖ seconds per mile. The greatest feature of the achievement was the covering of over 83 miles in the hour. This was the most brilliant ride he ever made in this country.

In April he came east to prepare for his trip to England to ride in the Tourist Trophy race. While in New York he was challenged by Arthur Chapple to a 500-mile race at Guttenberg. Jake posted $500 in cash, and Chapple's manager asked for time, whereupon Jake called the deal off, and said he would ride no more in this country until his return from England. He left $100 posted, as evidence of willingness to meet anyone upon his return from Europe, and sailed from New York, May 17.

GOOD WORK ABROAD.

Jake's fame had preceded him, and he was lionized from the moment he set foot in England. He adopted an attitude of modesty, reticence and gentleness that won the hearts of the Britishers who had been led to believe him ever looking for trouble. He made his first appearance in English competition in the great annual 400-mile 24-hour run of the Motor-Cycling Club of London, from that city to Edinburgh and return, and won a handsome gold medal for a perfect score. The contest proved a continuous ovation for him, and at one control a little girl presented him with a silk American flag. Even the simple country folk had heard of the great DeRosier.

Immediately afterward Jake took up his quarters at Douglas, in the Isle of Man, to train for the Tourist Trophy race, and his riding was a revelation to the Englishmen. They were frank to acknowledge him a master.

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After he became accustomed to the course Jake set a new lap record in practice. It was after a strenuous morning's practice that he made the remark which the English have immortalized: "This ain't going to be no tea-party."

When the day of the T. T. came Jake was one of the big favorites. He led on the first lap, and was holding a predetermined schedule when suddenly valve trouble set in, and he found he had lost his tools and spare parts. He accepted outside assistance, in violation of the rules, and after finishing in twelfth place, was disqualified. Even his countrymen's regret at his misfortune, was no greater than that of his English friends. His defeat did not diminish his popularity in the least.

DEFEAT OF ENGLISH STAR.

He attained the zenith of his fame at Brooklands track July 15, by defeating C. R. Collier, the English champion, in a series of matches, carrying the world's championship. Jake won two heats, and blew a front tire in the other His skill in bringing his machine to a stop without disaster, after the tire came off evoked the highest admiration from the Britishers. Those who witnessed these matches unite in pronouncing them the most thrilling and hard fought that ever have been held in England. In addition to the title they netted DeRosier a handsome gold medal, and $650 in prize and accessory bonus money.

One week previous to his match with Collier, Jake attacked the kilometer and mile records at Brooklands, but did not lower them. He tried again on August 4, and was successful, being awarded another medal. He sailed for home on August 5, carrying with him the warmest regard of the English motorcyclists. On the eve of his departure he was the guest of the Collier family at a banquet, and the following tribute by an admirer appeared in one of the motorcycle papers:

"Bon Voyage! Jake, if you must go,
Across the 'Streak' from whence you came,
But ere you part from all you know
We'd like to say 'You've played the game!'"

"We'd have you know sport makes all kin
And tho' you've licked us without fuss,
We're glad to see the best man win
So shake hands, pard, you're one of us!"

Shortly after Jake's return to America he went to Chicago, and through an unfortunate misunderstanding, suddenly was released from the Indian team. With his reputation, he was quickly taken up by the Excelsior camp.

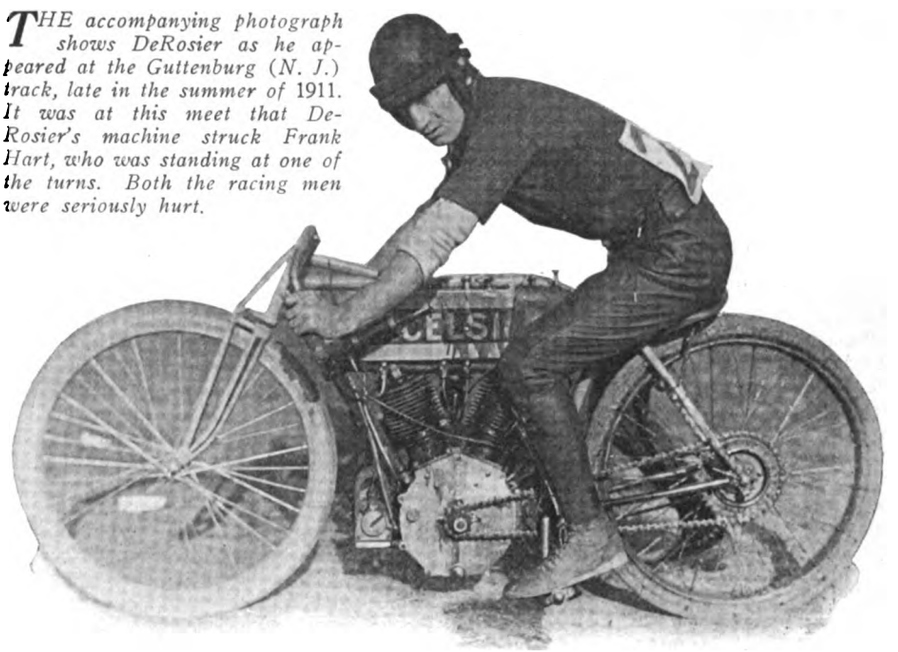
THE LOS ANGELES ACCIDENT.

In December, Jake went to California with his Excelsior racer, and on March 12, 1912, in a match with Charles Balke, on the Los Angeles Stadium, he sustained the injury which barred him from the starting line forevermore. Jake was picked up for dead, but his indomitable vitality asserted itself once more, and he went to the hospital with chances of recovery slim. After an operation on his leg, which was broken in several places, he seemed to be mending, and last Summer was able to enjoy an automobile outing.

Later he experienced a change for the worse, and last Fall his mother went to his side. He underwent another operation, and this time nearly succumbed. It was decided to bring him home, in the hope that he would recover more quickly in the east, and he finally arrived in Springfield, February 5. Although the long journey caused him considerable suffering he seemed pleased to be home again, and expressed confidence in his ultimate recovery.

When Jake entered the local hospital, he was in the best of spirits, and expressed a willingness to sacrifice his leg if it would mean quick recovery. Although pale, and showing evidences of intense sufferings after his long confinement, he seemed to have good chances of recovery, and talked interestingly of his future plans.

His oldest brother was by his side in the operating room, and after two and one-half hours under the knife he was returned to his room. When Jake came out of the anaesthetic he remarked that he felt fine, and then relapsed into a peaceful sleep. Two hours later a change for the worse was noted, followed by a temporary rally. After asking for his mother he again became unconscious, and the end came peacefully at 8.45 p. m.



THE accompanying photograph shows DeRosier as he appeared at the Guttenburg (N. J.) track, late in the summer of 1911. It was at this meet that DeRosier's machine struck Frank Hart, who was standing at one of the turns. Both the racing men were seriously hurt.

VICTORIES APLENTY.

During his career Jake DeRosier won over 900 races. He was a unique figure, developed by a rapidly rising sport, and possessed to a full degree the peculiarities of the racing motorcyclist, in addition to a magnetic personality. There was but one Jake DeRosier, there never will be another, for the conditions under which he achieved fame never will return. He was without question the most famous racing motorcyclist the sport has known in any clime.

Jake was the oldest and craftiest rider who ever trod a motordrome. Riding was his profession, his business and his hobby. He acquired all the tricks of the trade, and invented many new ones. He took competitors as he found them, and adapted his methods to theirs. He was blamed for many things of which he was innocent, and his proudest boast was that he never "sold" a race. To defeat Jake DeRosier a man had to have a faster machine.

Among the many beautiful floral tributes placed on his grave were a broken wreath from the Hendee Mfg. Co., a pillow from the employees of the test room, and a wreath from the Excelsior Motor & Mfg. Co. The latter wired Treasurer F. J. Weschler of the Hendee Mfg. Co., to extend condolences to the family and send a floral tribute in their behalf. Telegrams of sympathy were received from friends in many parts of the country. As a final mark of respect President Hendee ordered the factory flag half-masted, and all work suspended for five minutes, while the funeral passed the shop. In the unavoidable absence from the city of President Hendee, the Hendee Mfg. Co., was represented at the funeral by treasurer F. J. Weschler, Howard O'Brien and J. J. O'Connor.

STUDYING ROAD MATERIAL

NEARLY 200 samples of road building material,, gathered from 54 counties, are on exhibition in one of the rooms of the state highway commission at Columbus, Ohio. Under the direction of Commissioner James R. Marker they were collected last summer by Professor W. C. Morse, of the geology department of the Ohio State University. The remaining 34 counties of the state will be canvassed during the coming season to complete the collection. Material corresponding to each of the samples obtained is now being analyzed and tested at the Ohio State University. This is being done with a view of determining the hardness, toughness, cementing values and specific gravity of the various products. When this is completed the samples will be arranged in the exhibit according to their value for road building purposes.

FIRST RUN OF SEASON

MEMBERS of the Middletown (Ohio) Motorcycle Club held their first run of the season on Sunday, February 23. The riders were all mounted on Flying Merkels and rode from Middletown to Hamilton, and thence to Cincinnati. They were met outside the city limits by a delegation from the Queen City M. C. and escorted to the club headquarters. F. L. Valiant, of the Merkel staff, was among the riders and acted as host at a chicken dinner at Shuler's. After the lunch the party made a run to the mountains, where Valiant won an impromptu hill-climb. Among those participating in the run were L. S. Taylor, H. H. Huntsbery, of Cleveland; C. R. Mershon, M. E. Jones, Emil Buerger, F. Stenger, H. C. Forster and L. S. Dockstader. The boys covered about 110 miles.

FOUR motorcycle policemen have been appointed in Butte, Mont.

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QUESTIONS and ANSWERS

CARBURETER SETTING

RAY FOLSOM—Setting a carbureter of the type you mention is by no means so onerous as you seem to think. With the machine on the stand open the jet needle valve and cover the auxiliary air inlet with your hand while pedalling. As soon as the motor starts, remove the hand from the air inlet and adjust the air valve by means of the wing-nut at the rear of the upper part of the instrument, until it stays closed with practically a "closed" throttle. I say practically, because your machine has a slight opening from the carbureter to the motor when the grip is turned to off or shut position. Next screw down the needle valve until the motor runs as slowly as desired. Take machine off the stand and ride on the road, giving more jet opening by means of the valve until the machine will crawl or move as slowly as desired. The sharpest sound of the exhaust is a good indication of the proper quality of the mixture. As you open the throttle when riding, see that the "bark" of the motor is sharp and that no black smoke comes out of the muffler. Make further adjustments by means of the wing-nut controlling the air valve, getting the best mixture possible, and noting the color of the exhaust between the muffler and exhaust valve, if possible to do so. The MOTORCYCLE MANUAL has directions for carbureter setting, and the makers of your carbureter will send free a very excellent explanation of their instrument.

HAND VS. PEDAL STARTING

EMIL M. BRANDES.—On the hand-cranked motor, the leverage is direct on the motor crankshaft or through a bevel gear with the leverage in favor of the rider, as on the Henderson. With pedals the rider has to drive: 1, the pedal-gear; 2, rear wheel, and 3, transmission before he reaches the crankshaft. On a chain transmission this means four bearings, a wheel and three chains with the radius of the pedals less than that of the starting crank. A comparison with the crank directly on the motor crankshaft will clearly show why the motor can be turned over more easily.

Then, also, when you are working the hand crank you can give a sudden pull to get the motor over center at the proper time, and this is felt directly. With pedals you may make a number of revolutions without effecting a start, and the usual method is to "pedal your head off" so that starting will be assured. Every bearing gives so much friction against starting, and on the pedals you literally heave the motor over by your weight and the amount of "kick" in your system. Hence, the valves are arranged to lift to start. Most men can lift considerably more than they can push down, too.

KEROSENE AS FUEL.

ARNULF C. ROSE.—It is possible to run a motorcycle as the motor is at present constructed on kerosene or coal-oil. The trouble lies in the obtaining of a carbureter to properly vaporize the heavier (than gasoline) fuel. A kerosene carbureter needs to have a larger jet opening than one for gasoline. The Schebler or one of similar type can be used in this respect. But also, the fuel must be preheated in order to thoroughly vaporize it, and this means a jacket around the mixing chamber or inlet pipe. No carbureter for motorcycles is fitted with this, and within this jacket must circulate the exhaust gases to get the heat necessary for vaporization. A failure to properly vaporize the kerosene means heavy carbon deposit in the cylinders, dirty exhaust and a smell due to unconsumed gases in the cylinder, but burned in the exhaust. There are no kerosene carbureters made at present for motorcycles. See the article on Alternative Fuels, by D. R. Hobart, published in these columns some time ago, and the Kinks and Komments in the February 6 issue.

FITTING 9 HORSE MOTOR.

C. HOELZEL.—(1) We do not advise fitting the 9 h. motor in the frame. The chances are strongly against it standing up, and the risk is not worth the damage that might result to you. (2) By no means. See Answer 1, above. (3) The motor mentioned is first class, and the material is as good as in any motor on the market. It should do the work faithfully day in and day out. One of our contributors has fitted a Mack single in an Indian frame and run it practically without repairs since the fall of 1911 with an inch V-belt drive. (4) We cannot state definitely what the mileage per gallon will be, but should presume about 45. (5) Use a 1¼ V-belt for the drive. (6) From runs made by our Technical editor on the machine you mention, no irregular firing was noticed in increasing or reducing pace. But this man is careful not to "dump the throttle into her," a fault which is too common, and by the practice of which any motor will give temporary irregular firing. Do not pay too much attention to the opinions you mention; the chances are that those who made them were very unfamiliar with two-stroke motors, at the least. Bad news, usually manufactured, travels faster than good news. (7) As far as we know, the two-stroke motor will give as good service as any other type. (8) Yes, we think you could depend on this make for the trip you mention. (9) Communicate with the makers, whose address will be found in our advertising columns.

REAR LIGHTS

JAMES B. BROWN—We strongly advise your fitting a rear light no matter whether it is compulsory in your State or not. You can easily rig up a tube from the Prest-O-tank, connecting it with a tee so that when the valve is opened, both headlight and tail lamp will be fed gas simultaneously. With a red rear light, dangers of collision will be better avoided and the excuse that the man at the rear didn't see you until too late will be of no avail. A point worth remembering in city riding, whether by day or by night: don't leave your machine at the curb near a corner, as there are numerous drivers who cut the turns short, and you may find your bus on the sidewalk in a battered condition, and the offender gone. This applies to the bigger cities with more force than the smaller ones.

NEW YORK LICENSE.

FREDERICK HAAS.—(1) At present there is no license required in New York State, but the age limit is supposed to be 16 years. (2) A red rear light is not compulsory, but we advise your fitting one, as you may tour in other States which do require such a light. Also, fit one as a matter of precaution against rear-end collisions. Legislation is pending for licensing of machines and the carrying of number plates, and we will announce any changes as soon as they are made.

GEAR RATIOS.

GROVER KORTONIE.—In our October 17 issue, page 60, will be found a Gear Ratio and Speed table which will give you what you want. For a tour from Niagara Falls to Cleveland and back again send to the F. A. M. Touring Bureau, 51 Chambers street, New York, for tours B-29, Buffalo to Erie, Pa., and F-138 Erie to Cleveland, Ohio.

OSCILLATING VALVE MOTOR

INQUIRER, N. Y.—As far as we know the only oscillating valve motor is the Phantom, shown in the February 6 issue, page 61. For automobile motors of this type, see the *Horseless Age* or *Motor* for the past year.

A. R. VOGEL—Write the Consolidated Manufacturing Company, Toledo, Ohio, who manufacture the Y-A shock-absorbing seat device. See our advertising columns also.

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A SUNDAY run was recently made by the Plaza Motorcycle Club of New York City over the Long Island Motor Parkway. This was the first club run and a large number of the riders were on hand. The Long Island roads and the Parkway were in good condition, and the trip was so satisfactory that another will be held soon.

VARIOUS INQUIRIES

S. E. CORY—(1) Write the Motorcycle Equipment Company, Hammondsport, N. Y., for wire casings, both of domestic and foreign manufacture. (2) The rating of English motors is in cubic centimetres, which may be converted into cubic inches by dividing by 16.38. They have no arbitrary rating like 7.50 cubic inches equals one horsepower, but class motors in contests and trials according to piston displacement. Thus, the Douglas 2.5-inch bore and 2.36-inch stroke opposed motor is 330.5 cubic centimetres capacity and comes in Class A—cylinders up to 350 cubic centimetres. As this motor runs up to 4800 revolutions per minute on the track and a speed of over 70 miles an hour has been obtained with it, its power is somewhat over the 2¾ figure which would be its rating according to the M. M. A. figures in this country. It is said, actually, to turn up 9 horsepower. You can see, therefore, that the relation between piston displacement and rating has very little to do with the actual power of a motor. (3) Cone clutches can, of course, be slipped as well as any other type, and being generally large, will radiate the heat better than a small type of clutch. Slipping any clutch is bad, and should not be resorted to unless an emergency arises. The life will be prolonged if the clutch is alternately engaged and disengaged instead of letting it drag. More good clutches have been prematurely put out of commission by riders slipping them when a simple adjustment of the spark and throttle would have been just as effective and saved the whole machine from wear and tear. (4) Give more gas at first in the endeavor to correct the trouble, and go easy with the throttle manipulation. Do not "dump" the gas into her; it is not a matter of life and death to get away quickly. You can get the same effect as giving more gas by reducing the air, but the first method is the better. If you desire speed, you will, of course, get it at the cost of economy, and *vice versa*. If you should enlarge the jets, do it very carefully or you may cut them too large and your fuel consumption will then be enormous. Motors after considerable running will not operate satisfactorily on the same carbureter setting as when they were new. By no means make any changes of carbureter; the one that you use was designed for the motor that it is fitted to and should work satisfactorily.

FUEL TANK MATERIAL

CHAS W. BERGMAN.—A variety of materials can be used for gasoline and oil tanks, tinned copper being very excellent and used in considerable numbers. It is very light and fairly strong, and the tin coat is put on to prevent oxidation or rusting. One motorcycle manufacturer in this country has one of the most satisfactory metals for tank construction on all his machines; the stock used is block tin such as is used for 40-gallon milk cans, and the resulting tank is practically puncture-proof. Galvanized zinc is another material of good service-giving qualities, but a lining of copper is better to employ with such a material. Sheet iron is good and needs no lining, and there would be no objection to your using it for your purposes.

To determine the pressure of the exhaust gases at any distance from the exhaust valve it will be necessary to find the explosion pressure and the final pressure as the exhaust valve opens. We cannot give you figures for your particular motor, as we have never had a chance to make calculations on it, and no two motors of the same model and even of successive numbers from the same lot have the same compression pressure, explosion pressure and final (exhaust) pressure. It should be well over 50 pounds maximum for the type you mention that is the exhaust pressure, after it leaves the exhaust valve chamber.

WIRE CASINGS

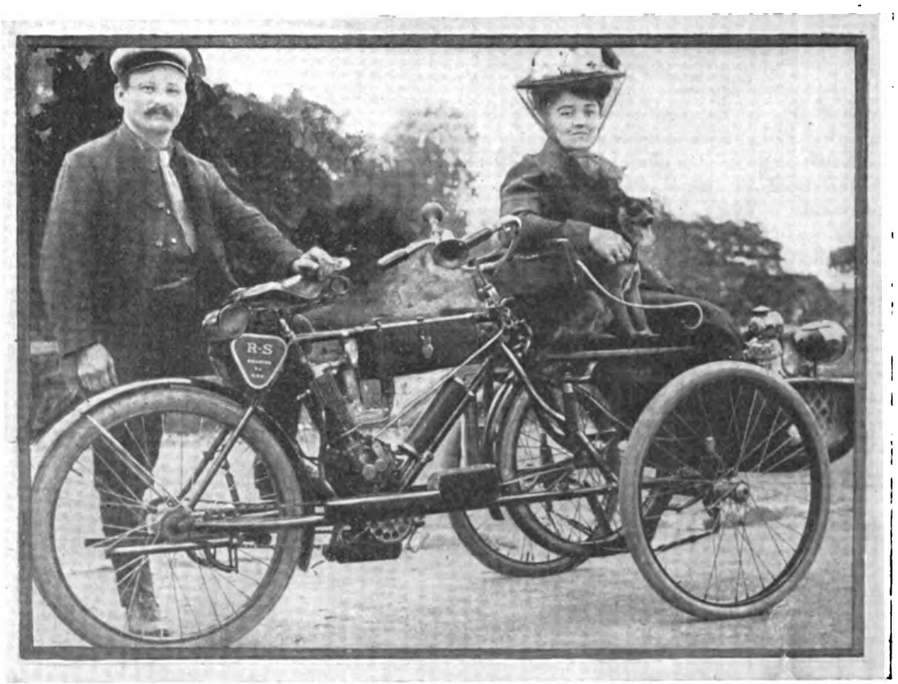
JOHN H. WHITNEY—Write the Motorcycle Equipment Company, Hammondsport, N. Y., for figures, etc., on wire casings, stating your needs in the letter. The Bowden wire mechanism is handled by the J. S. Bretz Co., 250 West 54th street, New York, and your dealer should have it in stock or get it for you.

STATE REGULATIONS

I. W. CASHNER.—The information you desire is given in full in our *Motorcycle Manual*. Licenses are needed in California according to local ordinances; at present there are no motorcycle regulations for Nevada; Utah has an exemption for non-resident riders bearing the license of other States. Colorado has local ordinances which vary; Kansas has similar provisions and Missouri an non-resident exemption. Illinois has an exemption for nor-residents, and so has Indiana and Ohio. Pennsylvania exempts non-residents, and so does New Jersey at present.

OSCAR HEDSTROM RETIRES.

OSCAR HEDSTROM, long a prime factor in the development of Indian motorcycles as vice-president of the Hendee Mfg. Co., announces his retirement from active participation in the company's affairs, and states that his only plans for the present concern a long recreation trip on which he has had his mind set for some time. Mr. Hedstrom's retirement becomes effective on March 1.



Motorcycle with Forecar Attachment, the Latter Patented by T. W. Razoux, of Brooklyn, N. Y., Who Appears in the Photo. The Forecar is Attached Without Removing the Front Wheel of the Motorcycle.

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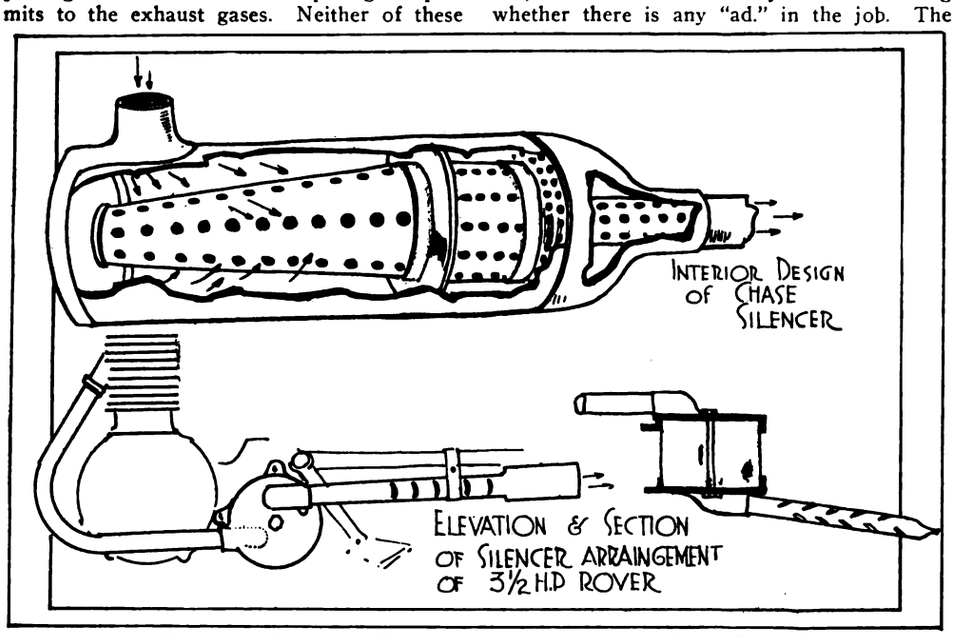
ENGLISH NOTES By "BRITISHER"

Winning Mufflers in A. C. U. Silencing Trials; the Last Word in Freak Hill-Climbing; What Stanley Is Doing with His Singer Racers; the Tidy Clyno Sidecar Outfit, and Other British Novelties.

THE muffler awards are now out, and the first prizes have gone to the Rover and Chase devices, which are bracketed equal, both in respect of the silent running they afford, and of their dynamic efficiency, each surpassing its rivals in the free passage it permits to the exhaust gases. Neither of these patterns interfered perceptibly with the power output of the engine, and neither of them allowed any noise to which any rational being could object. I append cuts of the victorious arrangements. The drawings are self-explanatory. The Hutton-Macbeth, Dawson and Clair mufflers received inferior certificates, while the Davis and Dunlop devices proved tolerably satisfactory without rivaling the others. The Ariel, Matchless and Phelon-Moore mufflers were silent to the ear in the running test, but put undue back pressure on the engine in the bench test.



Chase and Rover Mufflers, Winners in Recent A. C. U. Trials.

A FREAK HILL CLIMB.

SOME of our "knuts" are very badly bitten with the notion of arranging a hill climb on the world-famous Cresta toboggan run in St. Moritz, Switzerland. This run consists of an artificially laid track of frozen snow, three-quarters of a mile in length, with an average grade of 1 in 6, up the side of an Alp. It is the private property of an Alpine sports club, who go to considerable expense in preparing it for the annual racing season. The climb includes several bad turns, which are carefully banked to mathematical angles with earth, over which ice is deposited.

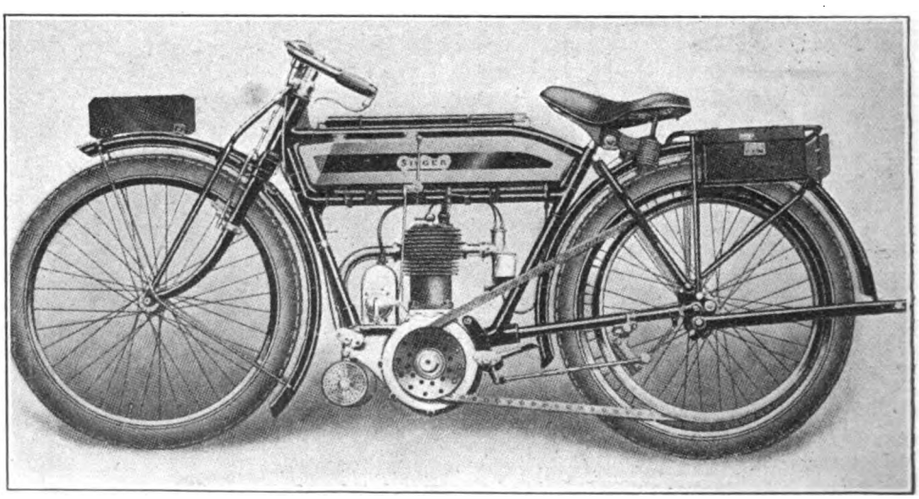
The worst grades are little short of 1 in 2, or 50 per cent., and the toboggan racers attain speeds of over eighty miles an hour by dint of gravity alone. The club's secretary has offered to open it for motorcycle racing two days after the close of the sledge racing season, and some of our boys are wondering whether there is any "ad." in the job. The first problem is to find a tire which can grip frozen ice at a 50 per cent. slant. The second is to get the jiggers to the venue, for the canton of Grisons, with a prejudice not uncommon in Switzerland, absolutely closes all its roads to motor vehicles, and the machines would have to be carted to the sports ground. It is therefore rather a toss up whether the climb will materialize.

TWO DETAIL REFINEMENTS.

"MONY a mickle mak's a muckle" is the good old Scottish proverb, and the illustrations on the next page, of brasswork details, show how carefully our modern machines are planned in every detail. One tap shows how the compression cock on the cylinder head is protected against the entry of road grit, when a rider uses a gasoline injection to free a gummy piston. The other shows how we are saved from diving under our overalls to seek the gasoline squirt in cold weather. The long spout of the tank drain cock is pivoted, and can be turned over the compression tap, so that an injection can be procured without the aid of a loose squirt.

SINGER MOTORCYCLES.

THANKS to young Stanley's daring track work the reputation of the Singer machines is rising by leaps and bounds. Stanley is one of our few really heady racing men. The others mostly tune up on the hit or miss system; they get a picked engine from the head of the factory testing shed, they go down to the track and experiment with every detail, testing each adjustment by trial spins round the three miles of cement against the electric clock. Stanley has a little private shed of his own, in which he is usually hidden. Suddenly without warning he emerges, wires up to town for a record attempt permit, and without any trial spin he gets away, and puts up records unless something snaps, or a tire goes. He is a small, withered looking little man, with an anxious face. The cuts show a standard



The Singer, on Which Stanley Is Doing Some Remarkable Work in England.

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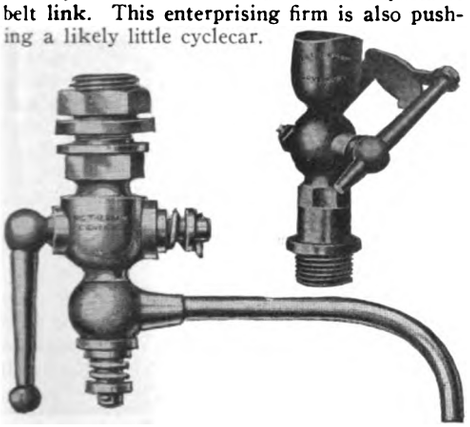
Singer racer and their open-frame ladies' machine with dress guards. The rear wheel of the Singer can be removed by undoing the two main axle nuts.

SOME PREMIER POINTS.

THE Premier Co. is the most inclined of all our trade to cater for the faddist rider, and it manufacturers about a dozen different models, which looks on paper like a short-cut to bankruptcy, but seems to bring them a tremendous volume of business. One of the Premier features is a neat cast aluminum belt shield, which protects the most vunerable arc in the belt run from wet, and also catches any oil blown out through the release hole at the tip of the crankshaft. Another is an arrangement for whipping the cylinder off in four minutes when its owner desires to remove any carbon deposits; and still another is a countershaft two-speed gear, which utilizes the popular combined chain-cum-belt drive.

This is one of the few designs on the market which provides an *adjustable* countershaft pulley. If the nut on the countershaft pulley spindle be slacked back, the outer flange can be screwed in or out with the fingers, so that it is never necessary to cut the belt, and any desired series of gears can be instantaneously secured with the aid of an adjustable belt link. This enterprising firm is also pushing a likely little cyclecar.

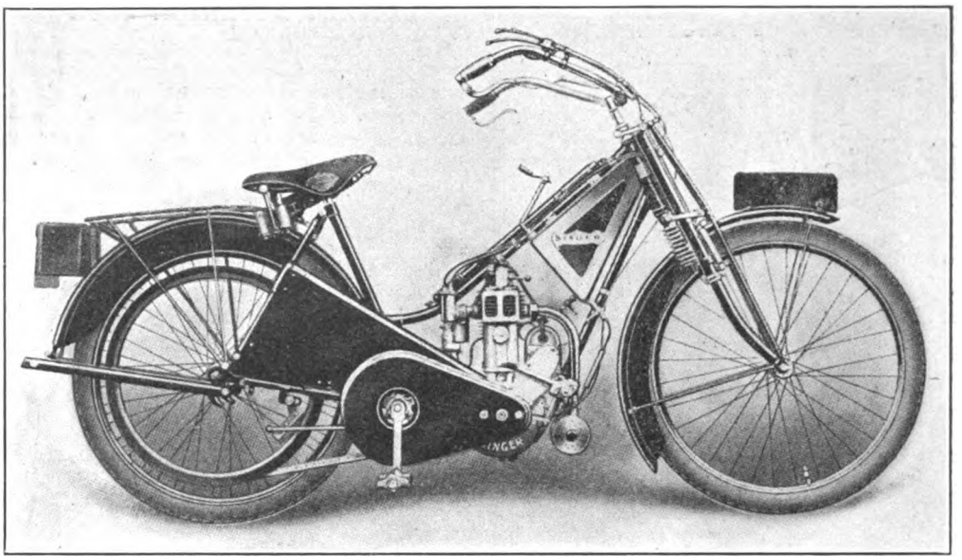


An English Priming System (at the left) and an Improved Compression Tap.

A SCIENTIFIC SADDLE.

OR—as the makers prefer to call it—"the" only scientific saddle. I am not familiar with American saddlery lines, but the average British saddle of best make has: (1) non-adjustable springs; (2) no rise and fall at the front; (3) an average rise and fall of 1½ in. at the back; (4) no lateral rigidity. The X1-all saddle, above referred to, successfully eliminates all these theoretic defects. The springs are adjustable, and are mounted horizontally instead of vertically as is the case with other makes. The ends of the springs are attached to bell-cranked levers, moving in opposite directions, mounted in bearings, the friction of which damps the action of the levers, and so stops excessive oscillation of the springs.

Thus, when a shock is sustained by the machine, the main jerk is absorbed in the transformation of vertical into horizontal motion, while the back and front of the saddle share any change of level equally, so that the rider sustains no change of angle, and does not suffer from back-ache. Furthermore, the shape of the saddle is not determined by guess work. The patentees were the only saddle makers to take plaster casts of the human anatomy in its riding posture, and they saw at once that no leather could possibly take or keep the required shape. They made their first saddle top out of naked pressed steel, and found it infinitely more comfortable in use than any existing leather top. They have since padded it with felt overlaid with the best hide, and as a result have produced by far the most comfortable saddle on our market.



Ladies' Model of the Singer, an English Favorite.

A NEAT GUDGEON PIN FASTENING.

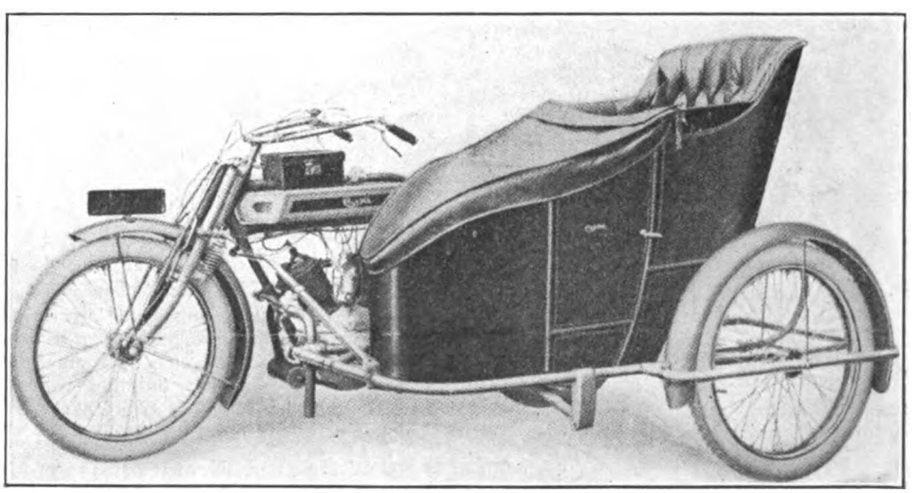
OUR B. S. A. piston wristpin shows a popular method of securing this troublesome detail. In old days it was locked by a pair of cottered screws, which for some mysterious reason used to drop out, foul the flywheels, and cause a pretty smash in the interior of the engine. A good many modern engineers trust to luck, and make the pin a driving fit, giving it a slight taper.

This is well enough as sent out from the works, but if the rider withdraws the pin, and has to replace it at home, he usually taps the light piston out of truth in re-fitting the pin. One or two of our best makers prefer the B. S. A. plan, which has not developed any demerit in prolonged tests. A divided wire ring slips into a groove and jams the parts tight. It is easily inserted by a twist with a pair of slender pliers, and can be picked out in no time.

TRICAR DESIGN.

A CONTROVERSY has been raging in British circles anent the safety of three-wheeled motorcycles when a tire deflates or bursts. Some users assert that under such conditions the outfit becomes unsteerable, and either makes a beeline for the ditch or neatly empties out its occupants on the road center; others maintain it is possible to bring the concern safely to rest. This divergence arises from experience with different types. If the rear frame is itself sprung, a spill is probable. When the tire deflates, it trails out of the rim either to right or left. This pulls the wheel over, by expanding the elliptic spring on the far side, so that the rear wheel is instantly thrown out of track and out of the vertical.

This prejudice has proved such a trouble to the makers of our "A. C." sociable tricar that they have at last decided to vindicate the safety of their chassis on Brooklands track. Next week they are sending a test chassis to the track. It will be sent round a lap with an ancient and deflated cover on the rear wheel at a touring speed. After that an inflated tube will be put on the rear wheel, and several big nails driven just so far as not to puncture it. Then the tricar is then to be driven at racing speed to demonstrate the safety with which it can be stopped when the burst occurs.



Neat Clyno Sidecar Outfit, with Apron to Protect Passenger.

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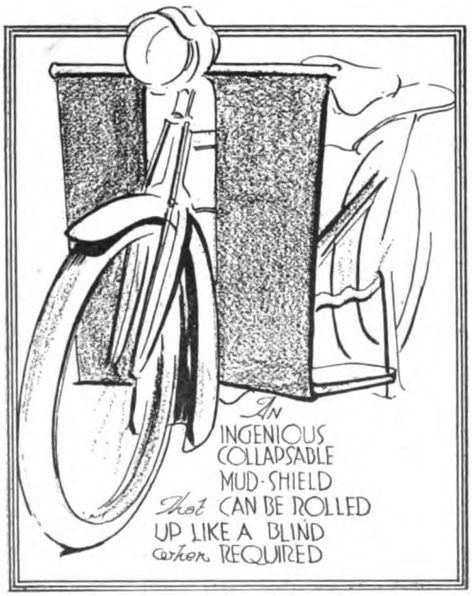


PORTLAND HILL-CLIMB

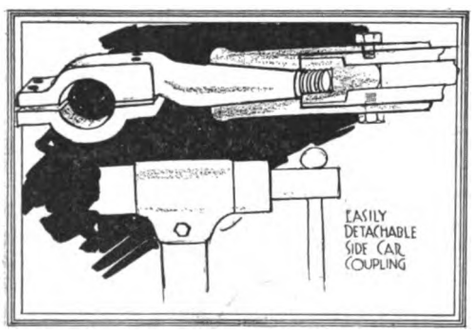
IN a hill climb at Portland, Ore., on February 24, a Pope model K big "4" took first place among the singles. The course was 1,940 feet long, with a total rise of 278 feet, the last 200 feet of the grade being 22 per cent. The winner's time was 40 1-5 seconds, beating his nearest competitor by seven seconds.

WON FROM SKATER

"BUNNY" PAINE, riding a single Harley-Davidson, gave an exhibition of flat track riding February 25, at the Auditorium Rink, East End, Pittsburgh, Pa., when he defeated Ben Specht, a local speed skater, in a one-mile pursuit race. His time for the eleven laps was two minutes, ten and one-quarter seconds.

A SALEM SIDECARRIST

ERNEST W. CURWEN, an Indian rider, of Salem, Mass., rode his machine more than 2,000 miles during the last season with his wife and nine-year-old boy in a Majestic sidecar. He reports excellent service from the outfit.



English sidecar couplings.

CLEVELAND M. C. BUTTON

IT was decided at a recent meeting of the Cleveland Motorcycle Club to adopt a club pin or button, and all members will be supplied with one. In carrying on the campaign for new members the club has split up into five teams, and the winning team will receive a handsome pennant.

SECRETARY Gibson announces the affiliation of the Harley-Davidson M. C., of Portland, Ore.

LIVELY DOMINION CLUB

ALTHOUGH the Hamilton (Ont.) Motorcycle Club has only 60 members, it is one of the liveliest organizations in Canada. It maintains a well furnished clubroom equipped with a pool table and piano, and an orchestra is on hand every evening. The club recently held its annual banquet.

TAKEN FROM GARAGE

A 1912 model, 7 h. Indian belonging to Julius Sterns was taken from the New York Motorcycle Garage, 310 West 48th street, New York, Friday, February 28. The motor number is 80D396. Sterns is an F. A. M. member, and the usual $25 reward will be paid by the Federation for the recovery of the machine.

IN FINE NEW HOME

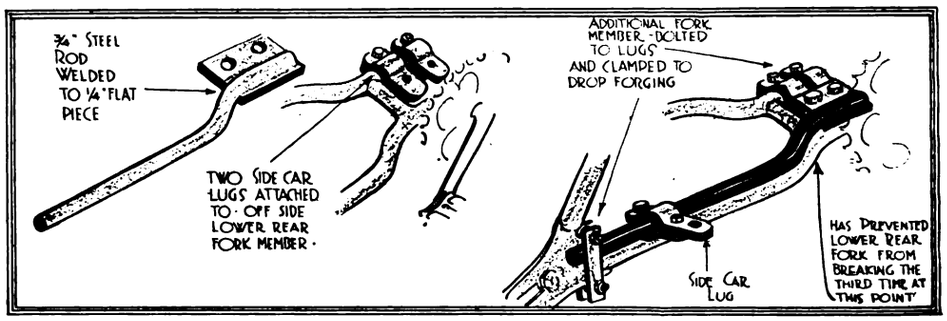
HAVING moved into its new quarters, the South Side Motorcycle Club now boasts of having the finest club rooms in St. Louis, Mo. Two events of interest held this month by the club are the annual banquet and reception and the public installation of officers.

TO HAVE NEW QUARTERS

AT the last meeting of the National Capital Motorcycle Club, of Washington, D. C., Frank Long, chairman of the committee on quarters, submitted a report. The committee recommended the renting of an entire floor near Ninth and N streets, N. W. Attention was called to the fact that the renting and equipping of these quarters will result in a considerable expenditure and will necessitate an increase in the dues paid by the members. It was decided to raise the dues to $1 per month, if necessary. A new committee consisting of Frank Long, Leo W. Beall, F. M. Mills, E. M. Dobson and L. R. Sakers was appointed to take charge of the new quarters.

FOLLOWING the example of the local police department, the Baltimore street cleaning department has supplied the street superintendents with motorcycles. The machines were bought from Howard A. French.

P. E. SPAULDING, of Harrison, has been appointed local commissioner by the F. A. M. State Commissioner for Maine.



How one rider braced his motorcycle frame for sidecar work.

BASKETBALL TEAMS

FOUR teams, the Thor, Pierce, Indian and Yale, have formed a basketball league in Houston, Tex. These teams are composed of members of the local motorcycle club. At latest reports the Thor team was far in advance, leading by 500 points.

SCREEN BILL DEFEATED

COLUMBUS, Ohio.—The bill which was fathered by the Columbus Motorcycle Club and the Columbus Automobile Club to compel motormen of interurban cars to screen their glaring headlights while passing motorists has been defeated.

AMONG THE MISSING

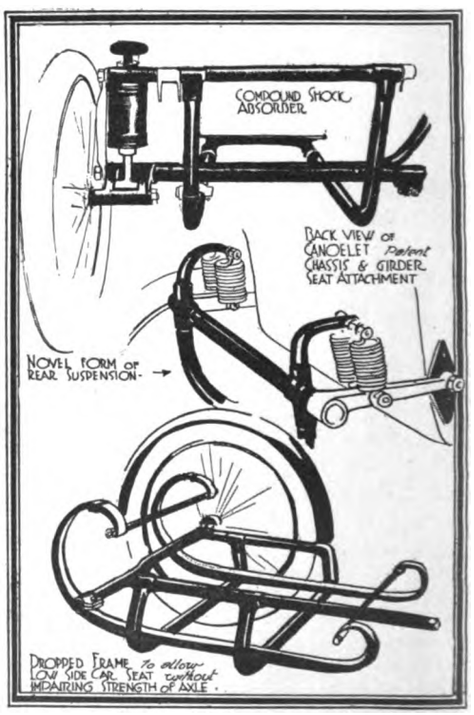
A REPORT is made of the theft of a 1913 Excelsior from J. H. Stowell, 2633 Indiana avenue, Chicago, F. A. M. member No. 12,441, for the recovery of which the usual reward of $25 is offered. The machine was equipped with Goodyear tires and head and tail lamps; it had an extra oiler on front of the cylinder and there was no pump in the tank. The motor number is 39071.

MAY PURCHASE PROPERTY

AMONG the more important business discussed at the last business meeting of the Buffalo (N. Y.) Motorcycle Club was the project of purchasing a building valued at $10,000 to be used by the club as a permanent home.

CHIEF HARRISON, of the Evanston (Ill.) fire department, has recommended the addition of three motorcycles to the department.

IT is reported that the motorcycle is a most popular means of travel in Panama and that the motor two-wheelers are extensively used by government employes.



Shock-absorber, rear springing and frame construction as found in types of English sidecars

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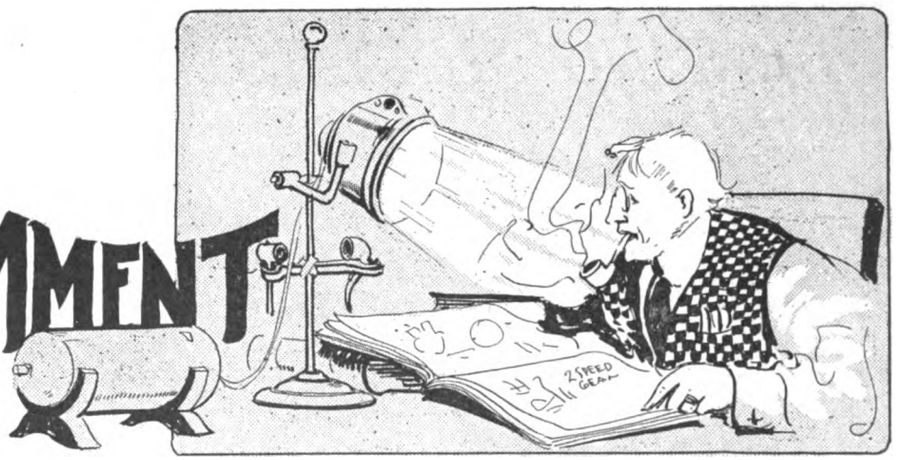
KINKS & KOMMENT

by "COURIER"



PROBABLY the most noticeable motorcycle feature of the freakish weather we have been experiencing is the sensitiveness of our carbureters. I say our, but that is rather narrow in its scope, as the same thing holds good with regard to automobiles also. Riding along roads where motor traffic of all kinds is numerous these days, the great number of black-smoke exhausts seen (and smelt) is surprising. I think we leave too much to the automaticity of our carbureters, and this has a bad effect on our riding. As we are generally averse to constant tinkering at any one thing about a machine used primarily for pleasure purposes, the mixture is let go any old way so long as the motor drives the machine. Matters are worse when the rider has to reach under his knee and twiddle knobs or nuts which are concealed, and I for one am going to take a leaf out of our British cousins' book and fit my auxiliary air control so that it can be operated from the handle-bar.

RIDING AS A FINE ART.

MOST riders are more or less familiar with horses, and in one respect, driving a horse and riding a motorcycle properly require the ability to do certain things. Any child can guide a horse by means of the reins, and almost anybody that can balance, turn the grips and back-pedal can drive a motorcycle, but that is far from being all that is required in either case. A person who cannot harness a horse and put him through all his paces at any time can hardly be considered a driver, and likewise a motorcyclist who simply straddles a two-wheeler and cannot adjust his mixture, regulate his oiling, and act properly in an emergency can not be called a rider. Riding is all of these plus the knowledge of "pulling-up distances" at any speed of the bus, knowledge of the rules of the road, and how to run over all kinds of surfaces. This may seem formidable, but a little general riding in the country and city will develop a rider's ability until all these things become second-nature to him.

BLAMING THE CARBURETER.

PERSONALLY, I am far from being a speedster, but like most riders I don't object to a brush now and then when road conditions permit. A big twin is as fast as any pleasure automobile and when I am out on the road at all, I hate to see a motorcycle passed by an automobile, and worse yet, when the rider of the motorcycle tells me his carbureter wasn't working just right. If the rider is a novice, you can show him where the trouble lies, but when he has ridden for several seasons, the inference is that he is far from being a first class motorcyclist.

On one occasion I had just got a tube back after a puncture, and along came a rider on a 7-twin with a big closed car slightly ahead. The driver of the car was all smiles as he came by, and the distance between the two increased about 100 feet and grew greater each second. At the end of about three city squares it was all over, and the rider gave up and came back to where I was. Then came the celebrated excuse, which should go arm-in-arm with the "slipping compensating sprocket" of former seasons. Then I started to talk. My short lecture on carburetion was well received, but the appendix on ridership was met with ire, and laying a bet, we both rode off to hunt that limousine. The speedometers showed 20 miles before we gave it up, but we never saw that driver and his car again. A movement of the air-lever about ⅛ of an inch on my friend's mount would have made all the difference in that brush as it turned out.

SIDECAR RUNNING.

THIN black smoke, showing too rich a mixture, may not make much difference in ordinary running when the machine is traveling solo, but when a sidecar is attached it may mean both rider and passenger pushing up hills that with a proper mixture would be taken nicely. Recently I saw a four-cylinder bus with heavy sidecar attached fail several times on a short steep grade, and the black smoke told the story only too well. The rider claimed that the setting was all right when he started out about three hours before, but then the sun was bright and the air moist, while later the air was dry and the weather cloudy. When the suggestion was made that the auxiliary air knob was put there for use on such occasions, the reply was, "Why do they call it an automatic carbureter, then?" My riding partner offered to make that hill from a standing start, but the offer was badly received, so we went off leaving the sidecarrists to think it over or go some other way around. The fact is that the increased load of the sidecar and passenger necessitates an entirely different mixture from that adjusted for solo work, and it naturally will be richer in gasoline. With a sensitive carbureter, the variation in the moisture in the air will affect the quality of the mixture quicker than ordinarily, so that a pretty frequent adjustment in weather like we are having now will be necessary if good running is to be obtained. Every rider who uses a sidecar ought to keep his motor "up to snuff" more diligently than ever, as a failure on a hill, no matter what the fault may be, is scored against both the machine and the sidecar. I know that 1913 is to be a sidecar year, and it is the pioneers that accelerate (or retard) the growth of a pastime, so study your outfits and boom the rational form of passenger attachment.

COMBINATION DRIVE.

THE first showing of the combination drive in this country was at the Chicago Show just passed, but the notice paid by some of the press to it was very scant. One young representative on being asked what he thought of it had not even seen it, but had seen a "belt drive with large pulleys" on one of the stands. Differing from this one was one of the readers of MOTORCYCLE ILLUSTRATED, whose letter in the "Told Among Friends" section last issue, is certainly worth reading, particularly as he is not yet a rider. I hope to see this chain-cum-belt transmission come into use shortly, as it is a corker and admits of using a clutch and variable gear in any position desired and has the advantages of both chain and belt with a few of its own. It can be used for sidecar work, too.

A SIDECAR STAND.

WITH the sidecar fitted, there are times when a stand for the latter will be desirable, and one that I saw the other day shows how quickly and cheaply a stand can be fitted. The rider took a piece of 2 x 2 wood and shod one end of it with sheet iron. Cutting it to the proper length, he fastened it to the axle-member of the sidecar frame by means of a curved strip of iron or zinc, and attached a dog-chain to it and to the mudguard. Simply loosening the chain from the hook on the guard allowed the "stand" to drop, and the sidecar was easily lifted onto it.

Most readers are familiar with the old individual stands used as recently as 1909, where the rear stay carried a clamp and the leg of the stand swung down and was held in place by a thumb-nut. There was one of these on each side of the machine, and riders had to adjust them separately. Well, one of these individual props makes a fine sidecar stand, fitted on the rear member and swinging up toward the left. You can still get these stands at most of the big supply houses. A strap for holding the leg up to the frame member should be used as an additional precaution, as the clamps on many of these stands will not hold.

SECRETARY GIBSON reports having received an application for affiliation with the F. A. M. from China.

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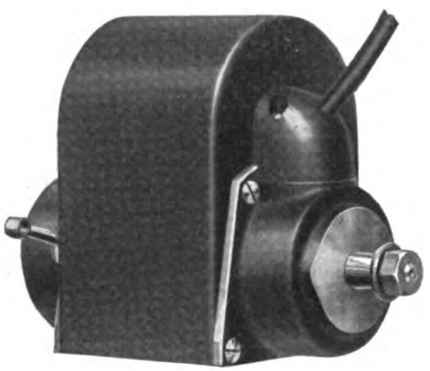
BERLING MAGNETO OF IMPROVED DESIGN

Motorcycle Ignition Product of Ericsson Mfg. Co. Embodies Results of Three Years' Tests in Up-to-date Buffalo Factory—Simplicity and Efficiency are Combined to Marked Degree and Special Attention has Been Given to Water-Proofing—Both Single and Twin Motorcycles are Provided for.

A RECENT addition to the field of motorcycle ignition fitments and one calculated to impress riders favorably is the Berling magneto, produced by the Ericcson Mfg. Co., of Buffalo, N. Y. This magneto is the invention of W. C. Berling, who has been associated with the Ericsson company for three years, and whose experience as a magneto engineer extends over eight years. Practically all of Mr. Berling's time at the factory during the last three years has been devoted to developing the magneto which is now being introduced.



Berling Magneto, Showing Waterproof Construction.

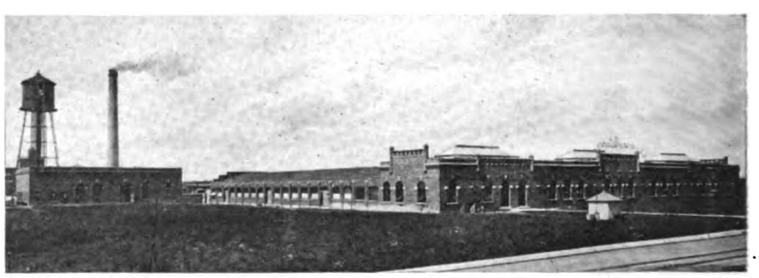
In order to be thoroughly reliable, a motorcycle magneto must, in the first place, be proof against water and dirt to the greatest possible extent. This point is attained in the Berling magneto by providing a drawn metal cover, which completely and tightly encloses the main body of the magneto. To further this same purpose the interrupter is enclosed within a tight-fitting cap. This cap is in one piece instead of being made in the usual manner, in two pieces, and this greatly decreases the possibility of water or dust reaching the interrupter.

Another important point which adds to the water and dustproof qualities of the Berling magneto is the fact that the high-tension cables are brought out directly from the terminals in such a manner that no metal parts are exposed, thus eliminating the possibility of "missing," caused by water and dust grounding the high tension terminal. Dirt and water are prevented from entering the driving end bearing by a felt washer.

A motorcycle magneto is necessarily exposed to excessive jarring, and it is therefore important that all parts be securely fastened together. This result has been obtained in the Berling magneto by the use of a special range of gauges of screws which are of standard size, yet are within such very close limits as to insure tight fitting screws wherever used, thus preventing looseness.

The Berling will throw an efficient spark of 3/16 inch length at a speed of 75 revolutions per minute. This efficiency is the result of painstaking effort in the design of the magneto, the selection of material and the building up of different units. An extremely small air gap between armature and field—about 5/1000 of an inch; accurate proportioning of magnets and armature; equally accurate balancing of armature windings and condenser with relation to the strength of the magnets; an extremely lively and snappy interrupter, as well as a correct treatment of application of the magnets to the field, are all factors of design accounting for the high efficiency of this magneto.

Magnets and pole pieces, armature iron and laminations, as well as the interrupter, spring steel and platinum contacts, are made according to Ericsson's own specifications and anlysis, and each and every new lot of material received is thoroughly tested and must correspond to certain high grade standards before being approved for production. The most minute care and supervision is employed in the winding of the armature and the building up of the mica condenser, which is made proof against breakdowns by a special process of impregnation which prevents water and damp atmospheric conditions interfering with the efficient operation of the magneto.



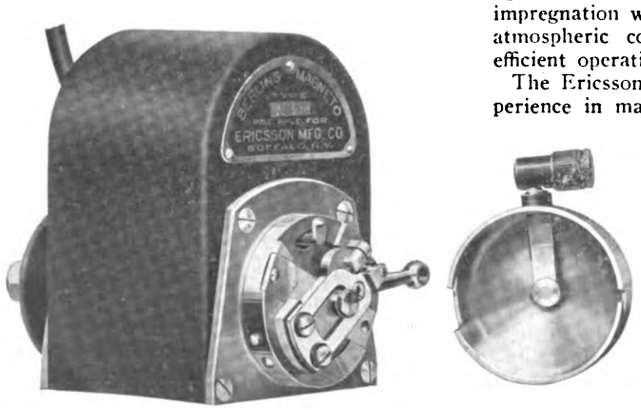
Buffalo Factory of the Ericsson Mfg. Co., Home of the Berling Magneto.

The Ericsson Mfg. Company's years of experience in making magnets is the best possible assurance of the life of the magnets in the Berling magneto. Ericsson knows exactly the right grade of steel, the proper treatment and the proper specifications for the making of magnets that will have long life.

The bearings are of the highest grade obtainable (the imported Norma ball bearings); the platinum contacts are extremely hard and proof against deterioration; the insulating material is of a kind that will stand very high heat without decreasing its electric strength and without warping; the device actuating the interrupter is made in such a manner and from such material that the possibility of wear is practically eliminated.

In appearance, the Berling magneto is very symmetrical and without a number of protruding studs and springs, thus making it easy to keep clean and preventing any interference with the mechanism of the magneto. It is furnished with several different kinds of mounting dimensions, which makes it possible to mount the magneto on motorcycles arranged for other standard makes.

The magneto is easily accessible when attached to the machine, all parts which require inspection and adjustment being within easy reach. The cap protecting the interrupter can be removed by a simple turn and pull; removal of this cap will completely disclose the interrupter, and when so disclosed the interrupter still remains in operation. This result is obtained by having the cams which operate the interrupter an integral part of the machine and not a part of the dust cover. The advantage of this arrangement is apparent; the interrupter can be inspected while the engine is running, in order to ascertain if it is working properly. Another advantage claimed for the interrupter is the ease with which it can be adjusted. There are no cumbersome hexagon screws and lock nuts to be manipulated. On the Berling the interrupter adjustment is made in a simple manner by loosening an ordinary screw locking the platinum contact screw. This screw is made in the form of a capstan screw and is easily adjusted with a pin, small nail or similar instrument and without the necessity of using a specially made tool for this purpose. On the single cylinder Berling magneto the high tension terminal can be removed by unscrewing two screws, which are easily accessible from above. On the two-cylinder magneto the high tension terminals can be removed without using any tool whatever, a simple turn of the knurled knob on the block wedged in between the two terminals removing them with ease.



The Berling with Cover Removed to Show Mechanism.

A WORCESTER OUTING

A PARTY of Worcester (Mass.) riders, consisting of Joseph H. Bennett, C. Nelson Robinson, M. L. Ripley and Dorace Bottomly, the latter two riding tandem, recently made a Sunday trip to Springfield.

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A CHICAGO BOOSTER.

ONE of the most active figures in trade and F. A. M. circles in Chicago is John L. Donovan, Federation State Commissioner for Illinois, and a live wire in the sales organization of the Beckley-Ralston Company.

The accompanying photograph shows Mr. Donovan to be just the sort of genial and enthusiastic booster to obtain results wherever he may happen to go after them—and he is going after them in some direction every hour of the day. Donovan was one of the busiest representatives at the recent Chicago show, and he is a strong rooter for independent motorcycle exhibitions.

BOUND BROOK DANCE

MOTORCYCLE riders of Bound Brook, N. J., recently attended the first dance given by the Bound Brook M. C. The affair was held at Voorhees Hall, which was decorated with pennants from numerous towns and cities which the riders have visited.

The present staff of officers of the B. B. M. C. is as follows: W. Haelig, president; W. Smith, vice-president; D. Beonio, secretary; F. Stangle, treasurer, and L. S. Brokaw, captain, with A. Karno and I. Sweazy, lieutenants. E. A. Younger and R. Rhinehart are directors. The club moved into its new quarters on March 1.

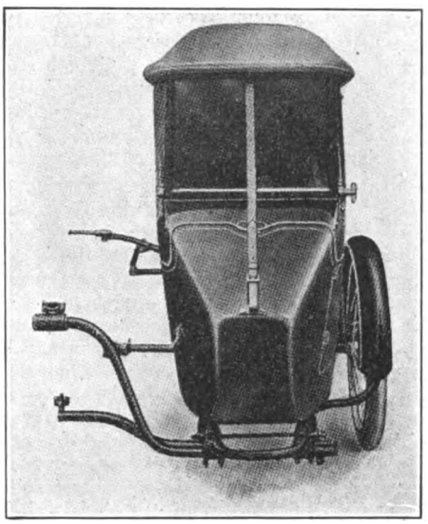
J. Walter Benton, 67 years of age, a sidecar enthusiast of Reading, Pa.

F. A. M. COMMISSIONERS

E. B. EWELL, of 310 North Park street, Richmond, F. A. M. State Commissioner for Virginia, has appointed the following local commissioners: T. D. Shumate, Roanoke; G. H. Tompkins, Richmond; W. H. Jeffrys, Newport News; W. H. Fuerstein, Norfolk, and J. F. S. Duke, Charlottesville. This body, together with W. C. Jones and E. Ball, of Norfolk, J. T. Preston, of Roanoke, and E. B. Ewell constitute a committee which will meet at Richmond on March 1 for the purpose of perfecting plans for a state tour and convention which is to be held in Norfolk during the spring. Mr. Ewell is anxious to secure information from riders who have toured through the state regarding the road conditions.

HOLD BEACH RACES

THERE are now about 60 motorcycle riders of Atlantic City, N. J., who are members of the Atlantic City M. C. A run is held every Sunday, and since permission has been obtained from the Mayor they have held a number of races on the beach. These are always watched by a large crowd on the board walk.



A type of enclosed sidecar that is growing in favor abroad.

OFFENDERS ARE WARNED

A NUMBER of members of the Bakersfield (Cal.) M. C. have been appointed special officers to assist in curbing speeders and open-muffler fiends, and they have adopted a novel method to obtain results. Offenders are interviewed and advised to turn over a new leaf, and if they persist in violating the speed or noise regulations they are dealt with more harshly.

AN UPKEEP RECORD

OFFICIAL records from the Detroit (Mich.) Police department show that the up-keep cost for the six twin Indians used by the department was $13.13 for 8 months, or $2.18 for each machine. The distance covered during that time exceeded 30,000 miles.

DURING the month of January, Ben Spain, a paper carrier for the Phoenix (Ariz.) *Republican*, who uses a motorcycle over his route, covered 1860 miles. He rode about 60 miles a day and his average consumption of gasoline was 1 gallon to 84 6/11 miles.

Motorcyclists of Red Bluff, Cal., recently made a Sunday run to Redding.

A POPULAR MANAGER.

IN appointing Oscar S. Brandt manager of his new uptown branch at 208-210-212 West Seventy-fifth street, New York, F. A. Baker, Indian distributer for that district, made a selection which is popular throughout Metro-

politan motorcycle circles. There probably is no better liked motorcyclist in Greater New York than "Red Devil" Oscar Brandt.

Brandt is a native son of Pennsylvania and an old time bicycle rider of note. He rode frequently at the famous Springfield tournaments, where he became acquainted with President Hendee and Vice-President Hedstrom, and in tandem races he has been both teammate and competitor of the latter.

When the motorcycle came in, Brandt became active in the new sport, and long experience as an Indian rider has well equipped him for his new duties. He is prominent in Metropolitan motorcycle club circles, and is president of the Motorcycle Touring Club.

MOTORCYCLES will be exhibited for the first time in connection with the annual automobile show at Pittsburgh, Pa. This is the seventh annual show in Pittsburgh and will be held April 5-12.

ABOUT seventy motorcycle enthusiasts of St. Louis were present at the recent banquet given by the Independent Motorcycle Association at its clubrooms, at 308 North Jefferson avenue.

Mrs. A. Strogonoff, Schenectady, N. Y., who drives her own Emblem on some long trips.

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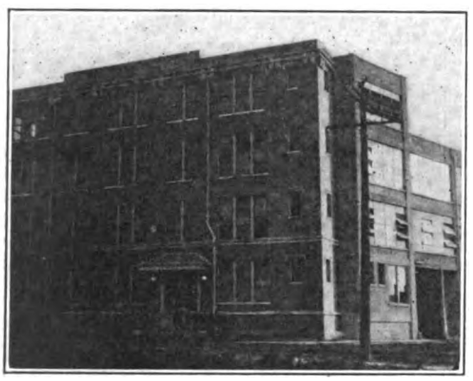
NEW BUILDINGS AT BIG MIAMI PLANT

IN the photographs on this page are shown the new office building of the Miami Cycle and Mfg. Co., at Middletown, O., and a view of the new wing which was recently completed. The office building was taken over only about a week ago and is undoubtedly one of the best equipped and most attractive of its kind. The building is four stories high, and is concrete and steel throughout, and the front is faced with artistic buff brick.

Just inside the door is located a waiting room for visitors, and on the left is a large telephone switch-board connecting with every department in the factory. President K. R.



Entrance to new Miami office building.

Jacoby's office is located on the right, and just beyond him J. F. Merkel also has an office. The left side of the first floor is occupied by the accounting department, purchasing department, pay-master's office and the cashier and H. S. Wise, assistant general manager and treasurer, also has his office here. The sales and advertising department occupy the entire second floor, the production department is on the third floor, and the experimental department on the top floor.

When they moved into the new offices, the Miami Cycle & Mfg. Co. discarded all the old furniture, and now has the most up-to-date office and equipment obtainable. Specially designed filing cabinets and sanitary flat top desks are part of the equipment. Dictaphones are used exclusively throughout the entire office. Each department has its own fire proof vault, although there is little likelihood of any damage by fire as the latest automatic sprinkler system is placed so as to reach every nook and corner of the building.

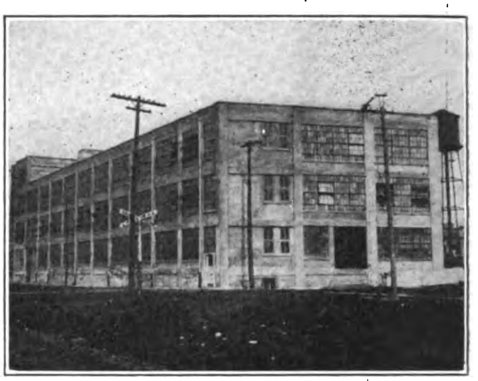
The new wing shown in another photograph was added to the plant this fall and has just been taken over from the contractor. It will be seen that it is entirely a steel and concrete structure. Practically the entire wall surface consists of glass and affords usually fine lighting and ventilation. The entire first floor is given over to the shipping department and an extra long platform makes it possible to load three cars at one time. As the receiving is done from a special track laid at the other end of the factory, there is no congestion between incoming and outgoing freight.

The motor assembling department occupies the entire second floor, and with the new specially designed assembling stands which have just been put in operation, it will be possible to assemble 100 motorcycles every day.

The top floor is occupied entirely by the bicycle department. So active has this branch of the Miami Cycle & Mfg. Company's business become that it is necessary to ship out 300 to 350 bicycles every working day of the year in order to keep pace with the orders.

Directly between the office and the factory extension is a brick areaway or driveway entering into the spacious yard between the factory buildings. Here the three big automobile trucks of the company pass in and out many times a day, while twenty-five testers ride into the areaway and discharge and mount their machines from a large elevator which descends to the level of the driveway. It is necessary to keep twenty or twenty-five testers on hand all the time as every machine is given a thorough road test before being shipped from the factory to a customer.

Several changes have been made in the Flying Merkel organization within the last month. A. C. Bryan has been made factory manager and has entire charge of the company's plant and its production. That he has made good is shown by the increased production apparent



New Miami wing that is now occupied.

in the last month. H. Cameron Forster, who has had wide experience in the selling end of other lines, is now connected with the sales department and will devote his energy to promoting sales of Flying Merkel motorcycles. Louis Weinman has been put in charge of the order department, with several assistants. C L. Hartsell is in charge of the pricing department, a new institution, and C. L. Miller, formerly with the Stoddard-Dayton factory, has been placed in charge of sales statistics. E. W. Adams, who looks after the sales of the entire Miami product on the Pacific coast, arrived at the factory last week and will spend some time in Middletown conferring with Sales Manager J. W. Ash concerning the company's various lines for 1914.

A night shift was put on at the factory last week and the Miami plant is now the busiest plant in the city. Despite the unprecedented rush or orders, prompt shipments are being made.

NEW HAGSTROM MANAGER

CHARLES LANDER, who will take up the management of the Hagstrom Brothers Mfg. Co., of Lindsborg, Kan., on the retirement of P. E. Zimmerman, who will be State representative for one of the leading motorcycle manufacturers, is one of the big men of Kansas from a standpoint of politics and business ability. He served a term in the legislature, and is at present the vice-president of the Board of Regents of the State Normal schools. He has been successful in business and farming and now owns and operates a large ranch near Lindsborg. Scientific farming is one of his specialties, and he is known as a high authority on agricultural matters. He is also an ardent motorist, and his influence will soon be felt in the realm of supply manufacturing.

"MECO" CATALOG

ANNOUNCEMENT is made by the Motorcycle Equipment Company, of Hammondsport, N. Y., that its new catalog, a well-illustrated 40-page booklet, is now ready for distribution and that the output will be 60,000 copies. Thousands of copies have already been sent out to dealers and riders and the remaining supply will be disposed of as rapidly as applications for them are received.

The company now has a Pacific Coast branch at 3664 South Main street, Los Angeles, where arrangements have been made to meet all the requirements of the coast trade.

USED J-D SPARK PLUGS

IT is with justifiable pride that the Jeffery-DeWitt Company, of 55 Butler avenue, Detroit, Mich., calls attention to the fact that its spark plugs were used by Lee Humiston in his trials at the Playa del Rey saucer which hung up a new set of world's records. It goes without saying that absolute dependability in the ignition system is a requisite for record-smashing, and the Jeffery-DeWitt folks feel that their claims relative to J-D plugs have now received new backing of the most substantial sort.

ALCORN RESTING UP

TOLEDO, O., March 1.—Factory Manager W. C. Alcorn, of the Yale, has been suffering poor health for some time, and has asked for and obtained leave of absence in which to rest up and get back into shape. For about 60 days, Mr. Alcorn has felt the necessity of easing up the strain of business cares for a time, and as he has now gotten things at the factory in condition so that all will go smoothly without him, he will follow his doctor's orders, and seek a change of climate.

In the absence of Mr. Alcorn his duties will be taken up by Superintendent Samuel J. Chubbuck, veteran of many endurance runs, and Short Grass tourist. Chubbuck's knowledge of all factory details is most intimate, for he has been in the Yale factory since its "prehistoric" days, and has every little point at his finger's ends. As superintendent, he has shown executive ability of an uncommon order, knows how to get the most out of a given number of men and machines, and gets results without making any fuss about it. Chubbuck will take up the work of factory management at once.

IN order to encourage a larger membership the Toronto M. C. has reduced its membership fee from four to two dollars a year. The club recently held a euchre party, and an "evening at home" is the next on the slate.

ANNOUNCEMENT is made that owing to the high cost of material which is being built into the new Eagle chain-drive twin by the American Motor Company, it has been found advisable to increase the price of this sturdy mount from $275 to $285.

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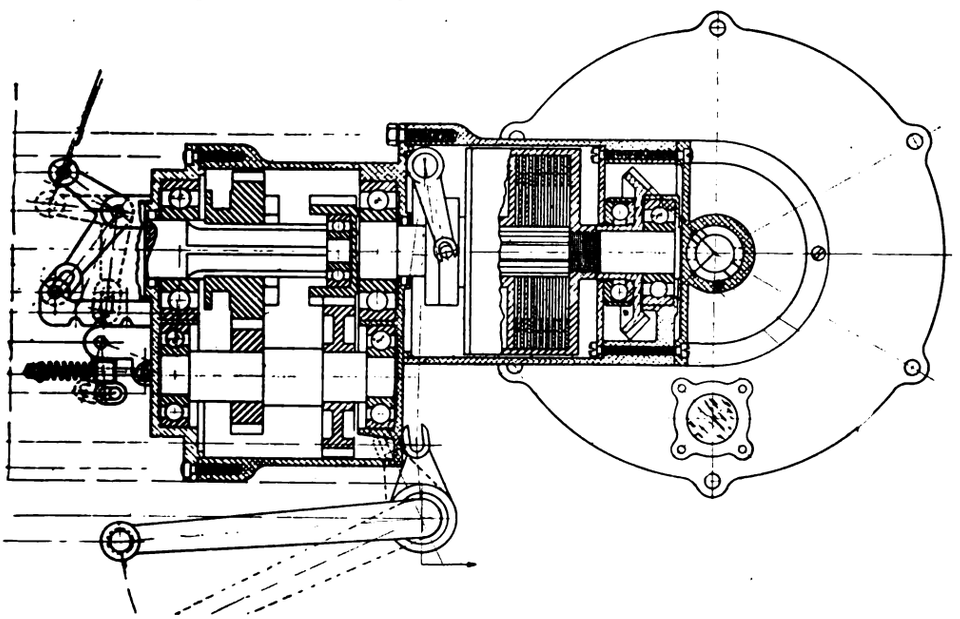
OPPOSED MOTOR ON BAILEY FLYER

Unique Portland Product has Automatic Two-Speed Gear, Shaft Drive and Pedal-Operated Band Brake—Ball Bearings Throughout and Handle Starting are Also Features of 9h. Air-Cooled Twin.

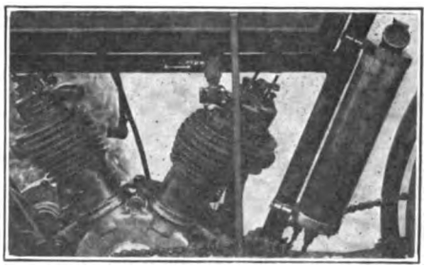
FITTED with a two-speed gear of the sliding type and driven by a two-cylinder opposed air-cooled motor, the new Bailey Flyer, the product of the MacLeod Manufacturing Company, Thirteenth and Johnson streets, Portland, Ore., is a most interesting addition to the motorcycle ranks. It can be claimed that this is the most powerful opposed motor ever mounted in a motorcycle frame, and with the recent performances of smaller motors of this type abroad, the Bailey product should be of unusual interest as well as being of a form in which the running, standing and firing balances are the peer of the best four-cylinder types. Robert L. Bailey, the designer, tested one of these machines for over 23,000 miles before placing the type on the market.



The motor is all ball-bearing and has a bore and stroke of 3¼ and 3¾, respectively. Automatic inlets are fitted and the ignition is by Bosch high tension magneto. The carbureter is a Schebler. The motor shaft drives a bevel pinion which meshes with a bevel gear on the drive shaft, which is located on the righ hand side. There is a multiple-disc clutch fitted at the front end of this shaft. The rear end of the shaft has another bevel pair which drives the rear wheel.

Ample ball-bearings are fitted throughout the machine in additon to those in the motor, and particular care is taken as regards the thrusts of the bevels, and the frame is thus prevented from distortion. The two-speed gear is fitted behind the clutch in a casing forming a prolongation of that carrying the drive shaft and is operated by a lever. The gears used are of chrome nickel steel, carefully treated and rectified. The method of shifting is unique, the operator setting the change gear lever on the frame to the proper position for the desired gear and on releasing the clutch, the shift or change is made automatically. The casings used for the gear set and clutch are of aluminum, and the latter connects to the crankcase of the motor, making the whole a unit for all practical purposes. The initial impulse to the motor is given by a hand crank, and consequently there is no pedal gear fitted. The brake is of the contracting band type, fitted at the left side and the drum forming part of the rear hub. A backward pressure on the pedals fitted sets this brake.

The tank has a capacity of 2½ gallons of fuel and 2 quarts of oil. The spring fork is of the coach type with scroll end, and the saddle fitted low down on the rear construction for an unusually low position. The handlebars are of the V-type and grip control is fitted. The wheels are 28 inches and 3-inch tires are standard equipment. The wheelbase is 58 inches and the standard color is French grey. Price is quoted at $350.



Glass Oil Reservoir on English Enfield; Note Also Method of Fastening Cylinders.

FEBRUARY GROWTH.

F. A. M. membership gains for the month of February are reported by Secretary Gibson as follows: Maine, unaffiliated 1; New Hampshire, unaffiliated 1, renewal 1; Massachusetts, affiliated 3, unaffiliated 7, renewals 25; Rhode Island, renewal 1; Connecticut, unaffiliated 1, renewals 2; New York, affiliated 25, unaffiliated 14, renewals 20; New Jersey, affiliated 23, unaffiliated 5, renewals 7; Pennsylvania, affiliated 14, unaffiliated 9, renewals 15; Maryland, affiliated 11, unaffilited 1, renewals 8; Virginia, affiliated 2, unaffiliated 2, renewal 1; West Virginia, unaffiliated 1, renewals 3; Delaware, affiliated 1; District of Columbia, affiliated 1; North Carolina, unaffiliated 1, renewal 1; Tennessee, renewal 1; Georgia, renewal 1; Florida, renewal 1; Alabama, renewals 5; Arkansas, renewal 1; Texas, affiliated 10, unaffiliated 3; Kentucky, unaffiliated; Oklahoma, unaffiliated 1, renewals 2; Ohio, affiliated 31, unaffiliated 5, renewals 34; Indiana, affiliated 3, unaffiliated 4, renewals 11; Illinois, affiliated 22, unaffiliated 7, renewals 13; Missouri, affiliated 11, unaffiliated 1, renewals 3; Wisconsin, unaffiliated 6, renewals 2; Michigan, affiliated 19, unaffiliated 2, renewals 5; Minnesota, unaffiliated 4, renewals 2; South Dakota, renewals 2; Nebraska, renewal, 1; Kansas, affiliated 12, unaffiliated 2, renewals 6; Iowa, unaffiliated 3, renewal 1; California, affiliated 29, unffiliated 15, renewals 16; Utah, unaffiliated 1; Colorado, unaffiliated 1, renewal 1; Wyoming, renewal 1; Montana, affiliated 4, unaffiliated 6, renewals 2; Idaho, unaffiliated 1, renewals 9; Oregon, affiliated 13, unaffiliated 4, renewals 3; Washington, affiliated 1, renewals 4; Canada, renewal 1; Philippine Islands, affiliated 8, renewal 1. The totals for the month are: Affiliated, 243; unaffiliated, 112; renewals, 213. The last card issued in February was number 20,134.

THAT there really can be something new under the sun in the way of local advertising for motorcycle dealers is indicated by the accompanying photograph which shows how Oron Overton, of Mobile, Ala., announced that he had received his consignment of 1913 Indians.

A MACHINE RECOVERED

CHARLES F. SCHRAEDER, Sheriff of Mesa County, Col., has received a check for $25 from the F. A. M., as a reward for the recovery of a member's machine. This is the tenth reward paid by Secretary Gibson. The machine, which belonged to Felix Carson, of Grand Junction, was stolen on September 29 last, by Ralph Berry, who has been sentenced to two years in prison.

ERNEST C. COX, former sales manager of the Texaco Oil Co., has taken a position with the Findeisen & Kropf Mfg. Co., makers of the Rayfield carbureter. He will be manager of the eastern sales and service branch, at 1902 Broadway, New York.

MORE than 300 motorcycles are registered in Ashburton, New Zealand, according to latest figures.

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MOTORCYCLES WIN TEST

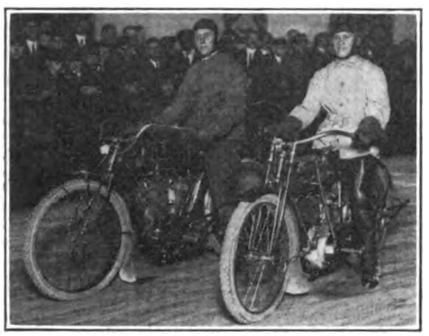
FOR some time past the firm of Bishop McCormick & Bishop, Long Island distributors for Page, Cole and Ford automobiles, and located on Halsey street, Brooklyn, have conducted an emergency repair department. Automobiles have been used for this purpose, but the service has not been found satisfactory and the cost of maintenance has been high. The company recently concluded a series of tests in which automobiles and motorcycles were rushed about on hurry jobs. The motorcycle proved so efficient and the upkeep was so low that a number of machines were purchased. Harry A. Patterson, the "live-wire" Brooklyn and Long Island Indian agent, was successful in landing the order. These machines were exhibited at the booth of Bishop, McCormick & Bishop at the Brooklyn Automobile Show, held in the Twenty-third Regiment Armory last week.

LIMA AGENTS

LIMA, Ohio.—The Lima Cycle Co., 212 West High street, has taken the agency for the Yale for Lima and vicinity. Z. L. Bedford & Co., 125 East High street, will handle the Harley-Davidson.

A SKATING RINK COURSE

BOB PARKER, on the Flying Merkel with which he won a recent race at the Elyria (Ohio) skating rink, appears at the right in



the accompanying picture. The event was for two miles and Parker won over Carl Hiller, who is shown at the left on his Indian, by 10 feet. Both riders mounted 7 h. chain-driven machines.

NEW ENGLAND AGENTS.

THE Boyd Motor Company, of Boston, one of the most important motorcycle concerns in New England, will handle "Flying Merkel" motorcycles exclusively during the season of 1913. This arrangement, which was just concluded last week, means that the self-starting two-speed "Yellow Jackets," and others of the Flying Merkel family, will receive proper representation in that portion of New England contiguous to Boston.

The Boyd Motor Company is planning the most comprehensive advertising campaign ever undertaken in New England, and, in fact, several large advertisements have already appeared in the New England daily newspapers. This has produced such a flood of inquiries that this week they wired for a carload of machines.

SOME MERKELITES

NEIHAUS & DOHSE, of Dayton, Ohio, who handled the Flying Merkel last year in that territory, have renewed their contract and will have a larger field. An order has been received from the Dayton police department for a number of machines. The entire motorcycle squad in Dayton will now be equipped with Merkels.

A week's additions to the list of Merkel agents are reported as follows: Sawyer & Son, De Kalb, Ill.; Matthew Lamberg, Bridgeport, Conn.; A. A. Stoddard, Jacksonville, Fla.; A. D. Swanson, Galesburg, Ill.; A. L. Marple, Cumberland, Md.; John G. Ledyard, Camden, N. J.; Cliff Tunti, Lorain, Ohio; G. E. Grass, Troy, Ohio; H. A. Jackson, Soottdate, Pa.; Roanoke Cycle Co., Roanoke, Va., and the Poultney Auto & Machine Co., Poultney, Vt.

SWINEHART EXTENSION

ACCORDING to a recent statement made by President T. F. Walsh, of the Swinehart Tire & Rubber Co., of Akron, Ohio, contracts have been signed for a new building which will be erected at once. The large increase of orders received by this company of late has made it necessary to increase the facilities. The new building, which will be 102 by 70 feet and three stories high, will enable the company to triple its present output.

MUDD LANDS CONTRACT

T. N. MUDD, Reading-Standard agent in Washington, D. C., has for the fourth consecutive year landed the contract for furnishing the police department with motorcycles. The contract called for two 5 h. chain-driven machines for the use of officers who escort the President on his automobile trips around Washington and vicinity. There are now eight Reading-Standard machines in use in the national capital police department.

MURPHY MAKES CHANGE

GERALD H. MURPHY, known in trade circles as "Jere," has severed his connections with the Splitdorf Electrical Co., of New York, his resignation going into effect the last of February. Mr. Murphy has acted as assistant treasurer for the company for seven years, and in that time has become very popular throughout the executive departments of the motor industry.

BOSCH DISTRIBUTORS

THE Doubleday-Hill Electric Company, of 719 Liberty avenue, Pittsburgh, Pa.; the Motor Parts Company, 185 Columbus avenue, Boston, Mass., and the Phoenix Automobile Supply Company, 3974 Olive street, St. Louis, Mo., are reported as new Bosch Magneto distributors.

MINNEAPOLIS DISTRIBUTORS

THE John F. Wingate Company, 1204 Hennepin avenue, Minneapolis, Minn., has been organized with a capital of $25,000, and will have the distributing rights for the Minneapolis in North and South Dakota, Montana and Iowa.

WANT MORE EXCELSIORS.

AN order for three Excelsior singles has been received by Waters & Co., of Savannah, Ga., from the local police department. There are already three Excelsiors in use in the department, one of them having covered 59,000 miles, and another nearly 40,000.

IT is reported that nearly every up-to-date druggist in Savannah, Ga., employs one or two single-cylinder motorcycles in his delivery department. The motorcycle is also popular with the photographers in Savannah.

A MILWAUKEE RIDER

MISS LILLIAN SLAUGHTER, of 428 Jackson street, Milwaukee, Wis., Milwaukee's first motorcyclist of the fair sex, appears in the accompanying photograph. Miss

Slaughter has been a Harley-Davidson rider for the last three years and has established a reputation as a dependable long-distance roadster. The photograph was taken February 16 last when Miss Slaughter was on her way to the skating park for an hour's recreation on the ice.

AN ORDER FROM PARIS

A CONTRACT for 100 machines, to be delivered as soon as possible, has just been closed with a large distributor in Paris, France, by the Henderson Motorcycle Co., of Detroit.

IN NEW BUILDING

THE Goodyear Tire & Rubber Company's Toledo, O., branch, is moving into its new building, corner Madison avenue and Fourteenth street. This concern will carry about a $500,000 stock of tires.

MONNOT & SACHER, motorcycle dealers of Canton, Ohio, have contracted for the 1913 Excelsior agency. The Excelsior company has also closed with F. C. Scott, 55 East Market street, Tiffin, Ohio, to handle its line in the vicinity of Tiffin.

VINCENT BROTHERS, of Cleveland, have placed sub-agencies for the Pope with the Herman Cycle Company and the Woodland Avenue Cycle Company.

Lewis May, agent for Indian machines in Savanna, Ill.

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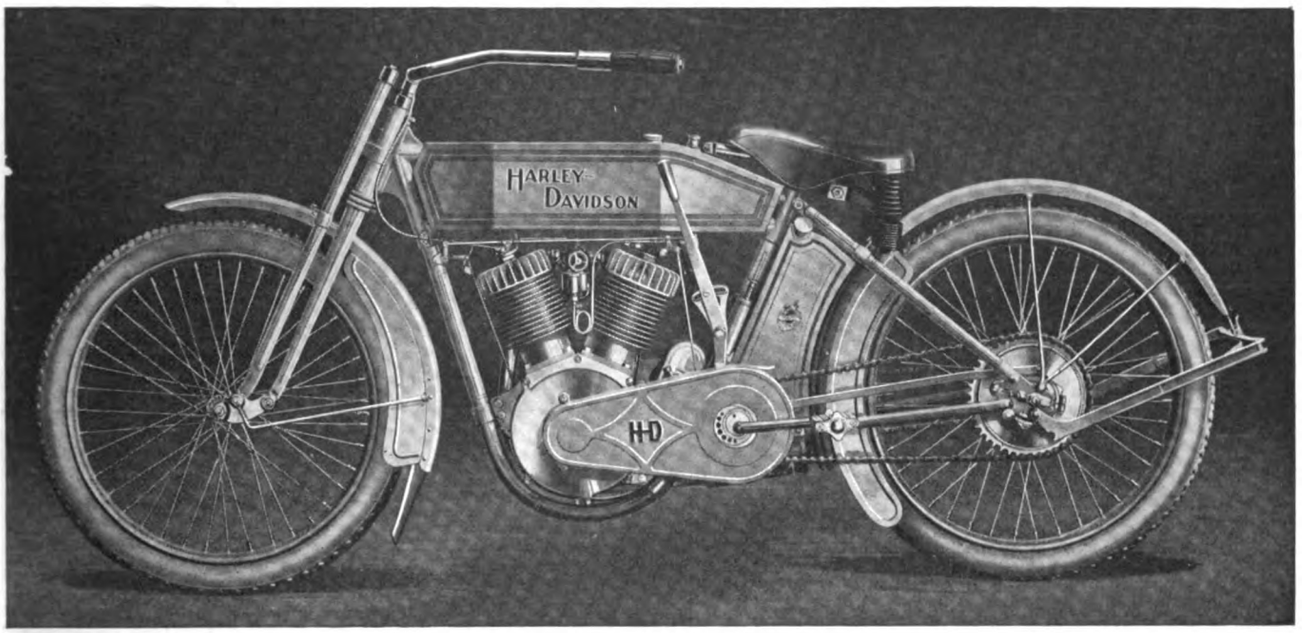

The Greatest Police Machine Built

THE Harley-Davidson twin without question fills the needs of police department use better than any other motorcycle made.

HERE is what Wm. Root, Chief of Police of Freeport, Ill., says of their Harley-Davidson:

"It has been in daily use for the past six months and the running expense has been about $6.00 per month for oils and repairs of all kinds. We have had no engine trouble whatever and have run the machine about 9,000 miles. Up to date we have not failed in a single instance to run down all violators of the speed limit, although we have had a few cases where it was attempted by both automobiles and motorcycles. The use of our Harley-Davidson on the force has enabled us to make some very important arrests which would have been impossible without the machine. We consider the Harley-Davidson the best and best adaptable to police work on the market, and would not be without one."

THE Harley-Davidson is built for service—hard continuous service—but it has more speed and power than any other stock machine made.

Harley-Davidson Motor Company

Producers of High-Grade Motorcycles for Eleven Years

376 C Street **Milwaukee, Wisconsin**

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MOTORCYCLE MART

One time, three cents a word; twice, two cents a word each insertion. Agents' cards, five cents per word; two or more times, three cents per word each insertion. No advertisement for less than fifty cents.

FOR SALE OR EXCHANGE

FOR SALE.—New Standard Speedometers, Excelsior and Indian attachments, $12; $20 instruments. Address Speedometers, care of MOTORCYCLE ILLUSTRATED.

FOR SALE—1913 Bushnell & Cannon two-speed gear to fit countershaft type motorcycle, price $20. Percy Morgan, 7 Elizabeth st., Newport, R. I.

HOW MUCH CASH AM I OFFERED FOR—One Yale tandem attachment complete, will fit Indians; one Prest-O-Lite tank, 8-in. head-light, tail-light; one LBA storage battery, new, never used? John L. Young, Creek st., Canajoharie, N. Y.

FOR SALE, $230.—1912 twin Thor 7, 2-speed; front and rear lamps; speedometer; luggage carrier; extra large Troxel saddle; tires good; machine now at Thor factory being overhauled. Also have Baxter sidecar for $45. Jas. DeMercer, 2841 Michigan ave., Chicago, Ill.

FOR SALE.—Motorcycle, bicycle and phonograph business, including side lines. Location and good will by purchasing five hundred dollar stock. J. A. Finkle, Dalton, Mass. "In the Heart of the Berkshires," State roads all directions.

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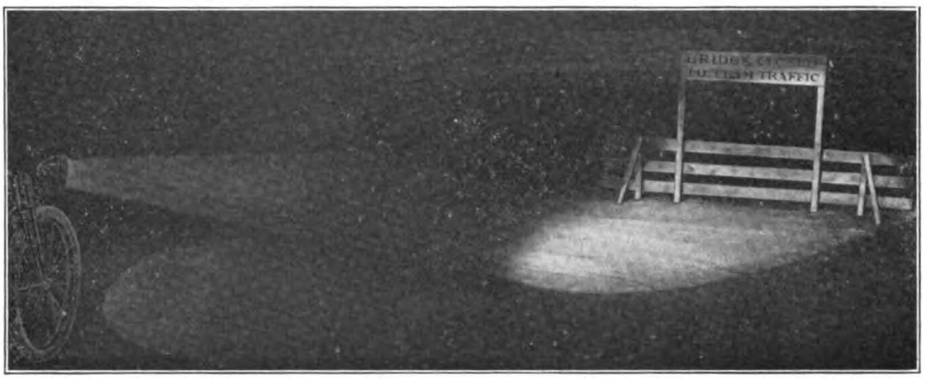

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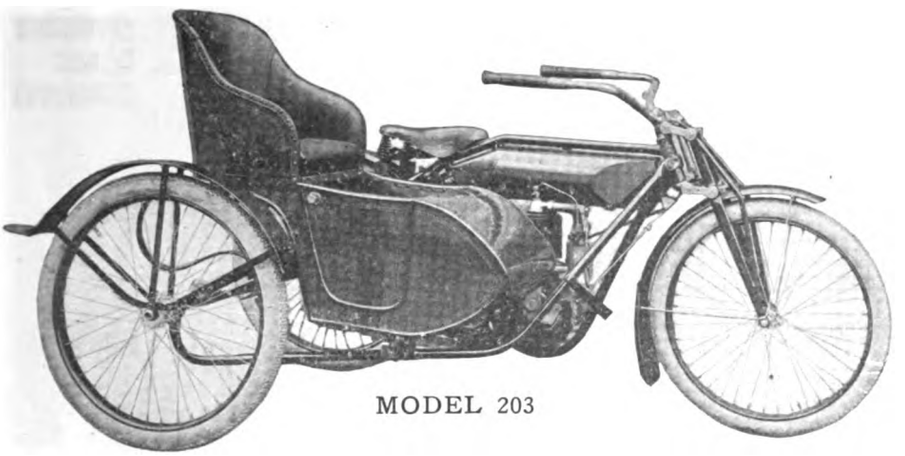

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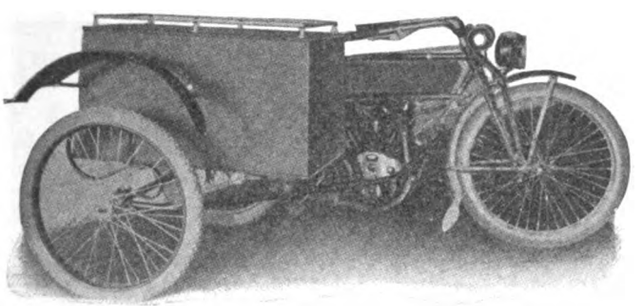

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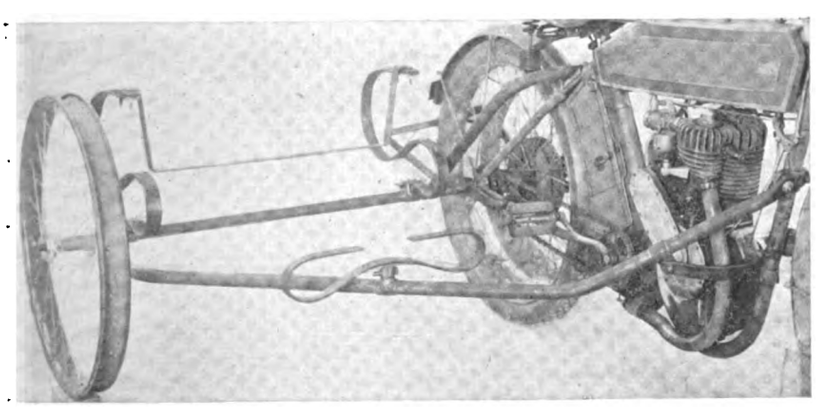

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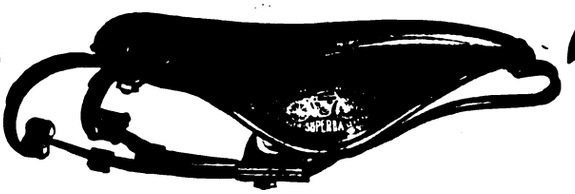

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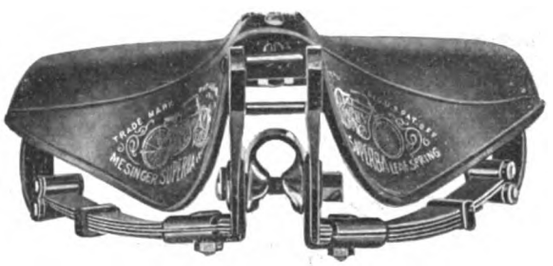

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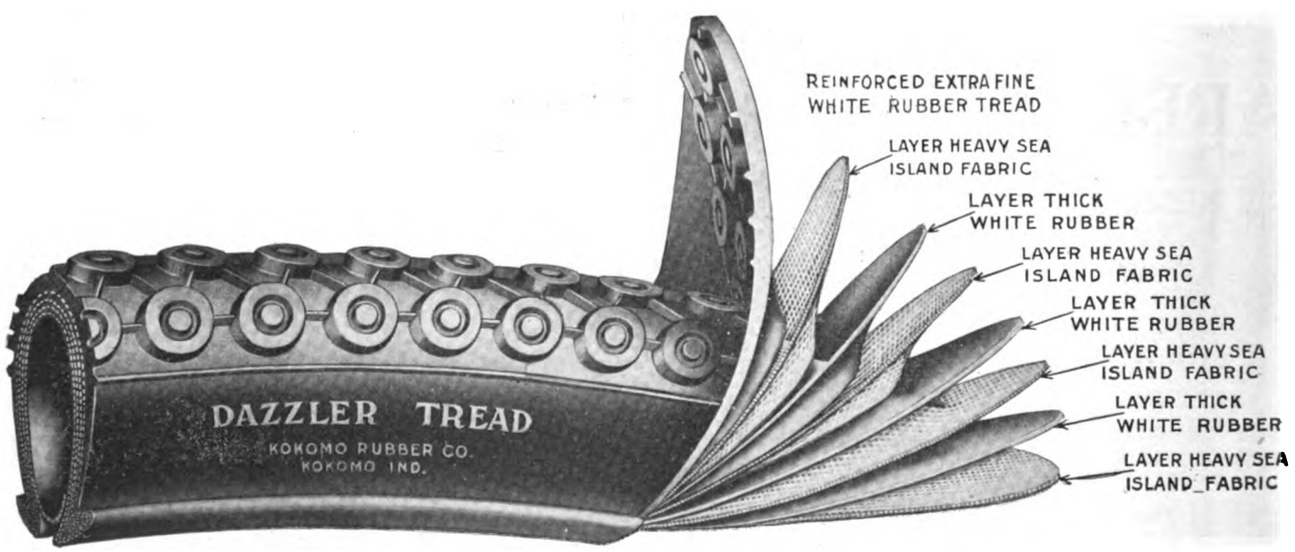

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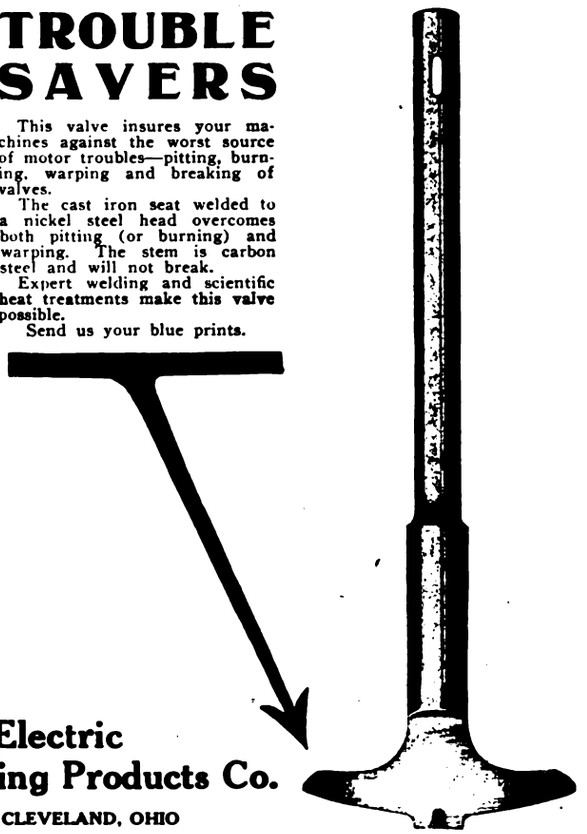

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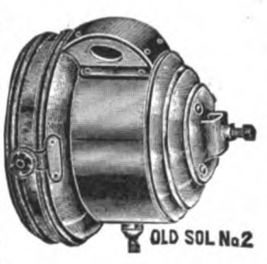

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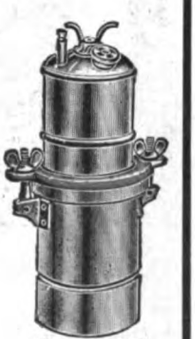

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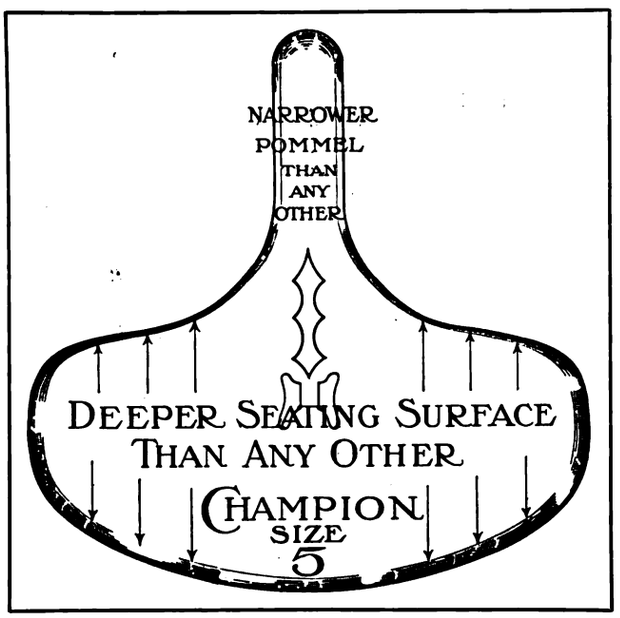

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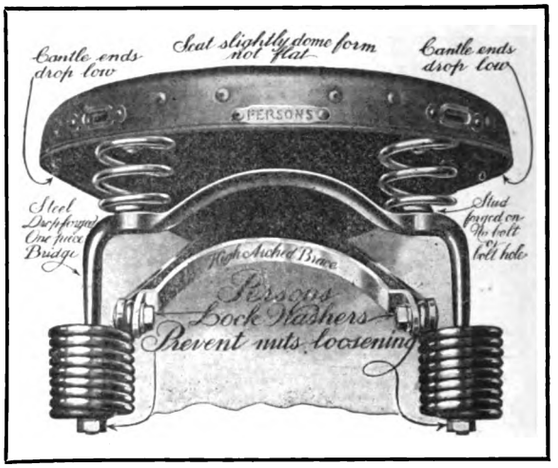

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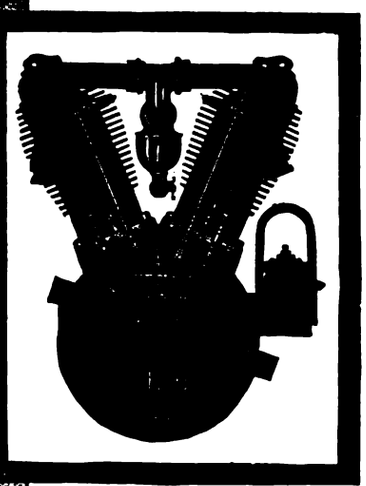
Motors DeLuxe

Superiority Wins! Ten months ago we announced to the trade for the first time our now famous line of DeLuxe Motorcycle Motors. Today many prominent motorcycle manufacturers are using DeLuxe motors and they are the most talked of sensation of the present season.



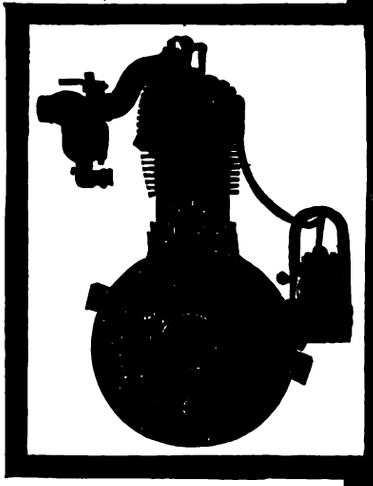
Why?

Because of the following noteworthy features, some of which are:

Rigid Crankshaft.
One Part Crank Case with Cover.
Improved Cam and Magneto Drive.
Oil Tight Motor.
Positive Oiling System.
Silent Operation.
Simplified Design Throughout.
Reduced Number of Parts.
High Power Development.

FOUR SIZES

4 H.P. Single Cyl. **5 H.P. Single Cyl.**
7 H.P. Twin Cyl. **9 H.P. Twin Special**



1913 Will Be a DeLuxe Year

Motorcycle Manufacturers, place yourselves in a position to supply the certain demand.

THE F. W. SPACKE MACHINE CO., Indianapolis, Ind., U. S. A.

Motors DeLuxe

When writing to advertisers, please mention MOTORCYCLE ILLUSTRATED.

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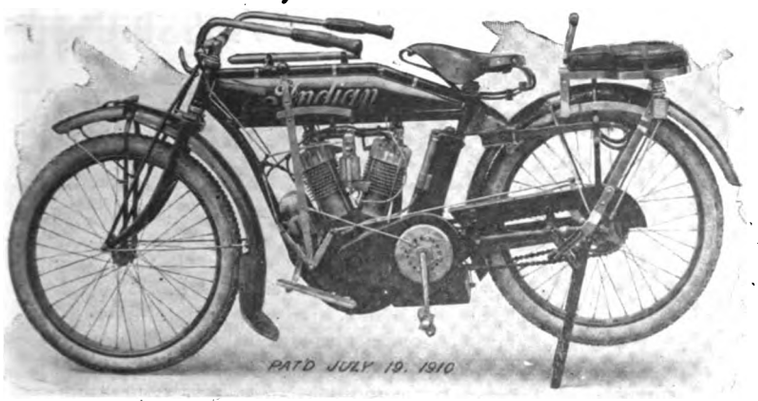
Gaze On This, All You Indian Riders, Agents, and Distributors



This is what you have been looking for. 'An attachment just as classy as the machine itself. An INDIAN Motorcycle equipped with our Attachment and Back Rest is the most luxurious thing on two wheels. Mr. Rider, if our INDIAN Attachment and Back Rest cannot be obtained from your dealer, send us a money order for $17.60, and we will ship same to you transportation charges prepaid.

BUILT BY MEN THAT KNOW HOW

Mr. Dealer, don't overlook these goods, stock them, sell them. Add $$$ to your bank account. Mr. Distributor, get these goods in stock and take care of your agents. We make these Attachments to fit thirty makes of Motorcycles. The Back Rests can be attached to any saddle having an iron cantle. Attachments, complete with cushion, or air bag for spare tube, $15.00. Back Rests $2.60. Universal Lamp Brackets, will attach any lamp to any handlebar in several different positions, $1.60 per pair. Double Locking Extension Nuts, 40 cents per pair. Liberal discount to Jobber and Dealer. A Postal Card will bring you a descriptive folder.

(Patent Applied For)

FENTRESS-NEWTON MFG. CO., 429 Bagg St., Detroit, Mich.

EMBLEM

Have You Enlisted Under the Emblem?

Have you assured for yourself a prosperous 1913 season? Have you held your ear to the ground and sensed the impending tremendous demand for the EMBLEM, whose service, whose speed, whose comfort and whose all-around quality have been so often tested and invariably conclusively proven? If you have—then you're an EMBLEM dealer.

When we say that every EMBLEM dealer will be a successful dealer we base our claim upon EMBLEM reputation. Its continually spectacular feats of endurance, its proven speed, its undeniably sturdy construction—all these features hold weight with prospective EMBLEM riders, and there are many of those in your town.

So, Mr. Dealer, if you are still open for a proposition, get ours. A postal card is all that is necessary.

EMBLEM MANUFACTURING CO.

ANGOLA, ERIE CO., N. Y.

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If Other Belts Were As Good As "Wetprufe" They'd Be Guaranteed

Every Wetprufe motorcycle belt is guaranteed to be water-proof and weather-proof.

Each belt is guaranteed not to stretch.

Each belt is guaranteed not to crack or open at the laps or plies.

Each belt is guaranteed to be free from defects in material or workmanship.

You want the best belt. If other belts were as good as Wetprufe, they'd be guaranteed, like ours.

Buy the best belt—a Wetprufe. It is guaranteed.

Your dealer can supply you with a Wetprufe belt. Additional Wetprufe facts if you will write us.

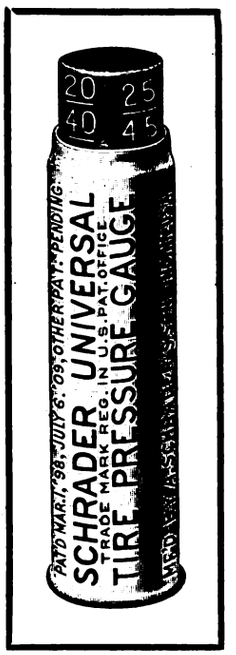
HIDE, LEATHER & BELTING CO.
227 S. MERIDIAN ST., INDIANAPOLIS, IND.

H. T. Roberts, Selling Agt., Railway Exchange Bldg., Chicago

Keep Your Tire Pressure Up and Your Tire Expense Down

You cannot run your motorcycle with any old pressure in the tires AND EXPECT THE TIRES TO LAST. Tires are built to withstand a definite and specified air pressure. You can only get maximum service when you inflate them to the EXACT air pressure needed, and maintain that specific pressure at all times.

A SCHRADER Universal Tire Pressure Gauge



PRICE ONE DOLLAR

Will tell EXACTLY what pressure you carry in your tires.

Kicking the tire won't tell you and guessing won't do.

Nearly right isn't enough, the pressure must be EXACTLY right.

ASK YOUR TIRE MAKER

FOR SALE BY
Tire Manufacturers, Jobbers, Dealers, Garages, or by

A. Schrader's Son, Inc.
30-32 Rose St. - New York

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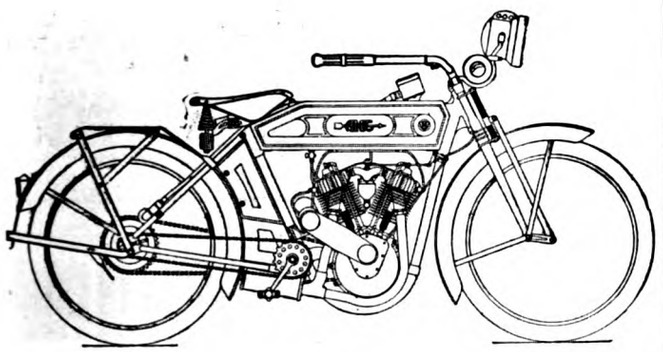
AMC



THE ONLY COMPLETE MOTORCYCLE

With Every Equipment

Five Models

All with Eclipse Free Engine Pulley

A machine with an abundance of power, exceptionally well proportioned and balanced, made to answer every requirement of city use and touring with the greatest comfort and economy.

The successful agent does not guess; he knows—because he takes the trouble to find out. Get the A-M-C proposition which shows the way to easy sales and big profits.

Manufactured by

Allied Motors Corporation

MOTORS BUILDING
Union Park Place and Carroll Ave. CHICAGO, U. S. A.

That Mysterious Sound!

Did you hear it?
That weird howl growing into a shrieking yelp and then dying away into silence? It says, "Look out—I'm coming!" It's

THE ACME SIREN

"The little horn with the enormous range"

A tremendously powerful bulb siren. Practically indestructible. Absolutely positive in operation. Long range. A handsome, unique and durable warning signal. Price $5, at your dealers or direct. Write for our booklet and send 10c. for one of our tiger color Coventry pennants.

Sarco Engineering Company

112 Broad Street, New York

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Standard

In Name and Quality

Never has there been a truer saying than the time-worn old adage, "It's the little things that count." And it is the degree of attention paid to these "little things," that determines oftimes the success or failure of a machine to "get across."

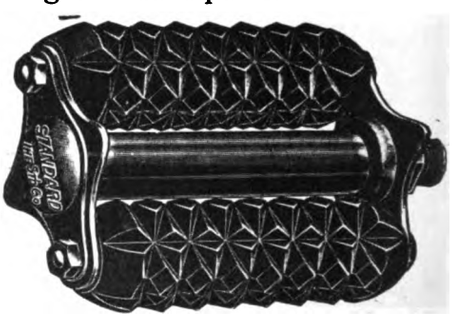
Wise manufacturers are equipping with Diamond "E" Spokes and Standard Pedals because they are quality goods—because they reduce the number of repair shop trips for the rider—because farsighted manufacturers realize that a motorcycle's weakest points are its strongest—and it is that infinite attention to detail which bespeaks perfection.

The dealer who looks ahead will stock heavily with Standard Pedals and Diamond "E" Spokes and Nipples. The motorcycles that are not so equipped will inevitably come to his shop for replacements and it is up to him to sustain his reputation for high-grade repair work by fitting Standard parts.

Everyone knows the superiority of Standard No. 3 Pedals, their deep, soft rubber cushions, the interchangeability of the rubbers, and the thousand and one other good features that are not found in other pedals. The feet cannot slip no matter how rough the going. And the perfection of Diamond "E" Spokes is proverbial.

The Standard Company

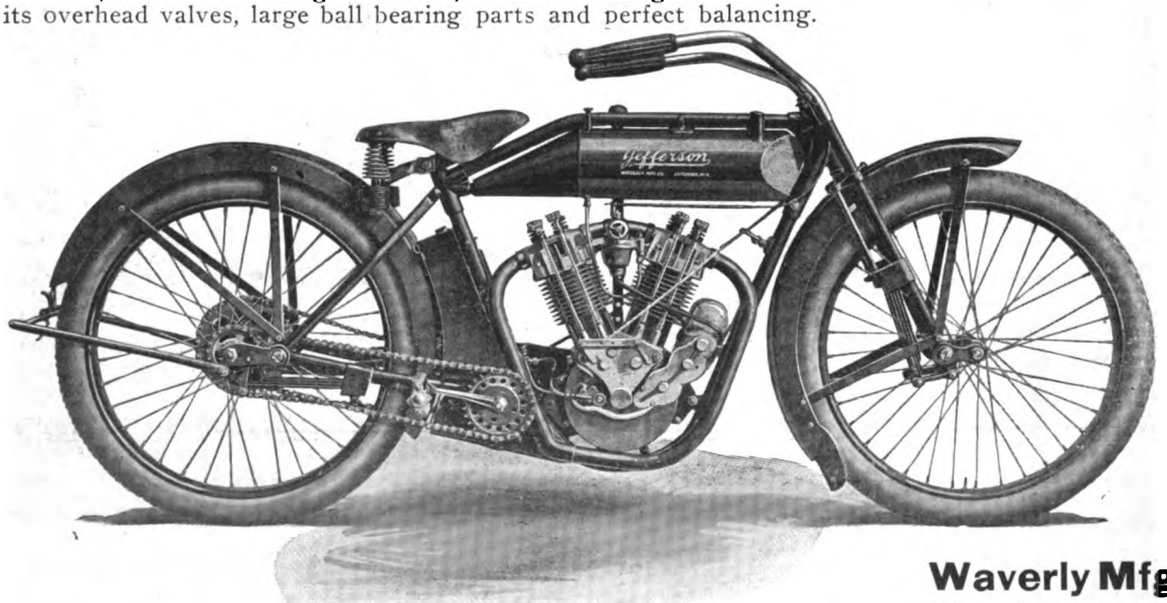
Torrington - Conn.



THE 1913 JEFFERSON HAS EVERYTHING

Speed—Power—Comfort—Durability

The JEFFERSON has these features in abundance. Its speed was proven beyond a doubt when, under the name of P. E. M., it won six races against twins, besides winning 37 out of 47 races which it entered. Power is assured by its overhead valves, large ball bearing parts and perfect balancing.



Aside from the automobile leaf springs, which not only make comfort a striking feature in the JEFFERSON, but add immeasurably to the strength of the JEFFERSON'S frame, the construction of the JEFFERSON—re-enforced frame parts, makes it proof against wear.

DEALERS—Our proposition is a good one Write us about it

Waverly Mfg. Company

Waverly Place Jefferson, Wis.

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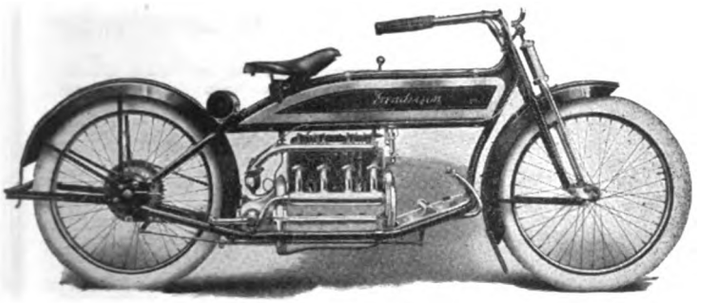
Line up now with Henderson



The 1913 Henderson 8-65
8 H.P., 4 cylinders; free engine; chain drive

Rider and dealer alike, if you want the 1913 Henderson, should not delay.

And there's no doubt you'll want it after you've investigated—the one for its power and silence and comfort; and the other because of its great sales possibilities.

Investigate, both of you, by getting the details from us.

Henderson Motorcycle Company

1158 Cass Avenue **Detroit, Mich.**

Even with porcelain BROKEN it sparks perfectly

Unlike all other plugs, J-M Plugs spark just as well with the porcelain broken, as when it is whole—even when the current is supplied by a magneto.

This perfect sparking service is made possible by the **double insulation** of the

J-M Spark Plug

There are two absolutely independent insulations in the J-M Plug—an inner insulation of mica protected from injury by a porcelain insulation. If the porcelain is broken, the mica prevents current leakage, and sparking will be just as strong as if the plug were not damaged.

Other exclusive features of the J-M Plug are—

Case hardened center electrode that cannot expand and contract when heated by the engine. All joints packed with asbestos or high temperature cements, baked so that they never require adjustment or "tightening up."

Look for name "J-M" on every plug. Shipped direct, prepaid, from our nearest Branch on receipt of price, $1.00, if your dealer doesn't sell them.

Ask our nearest Branch to send you Booklet

H. W. JOHNS-MANVILLE CO.

Albany	Cincinnati	Kansas City	New Orleans	San Francisco
Baltimore	Cleveland	Los Angeles	New York	Seattle
Boston	Dallas	Louisville	Omaha	St. Louis
Buffalo	Detroit	Milwaukee	Philadelphia	Syracuse
Chicago	Indianapolis	Minneapolis	Pittsburgh	

For Canada:—THE CANADIAN H. W. JOHNS-MANVILLE CO., LTD.
Toronto Montreal Winnipeg Vancouver

1933

Maroline MOTORCYCLE OIL

MOTORCYCLE dealers, manufacturers and speed kings everywhere are recommending the exclusive use of Maroline Motorcycle Oil. They have proven by actual test that it

"Keeps Your Motor Young"

Being manufactured from brightest, filtered Pennsylvania stock, it insures perfect lubrication and renders full power and speed. Carbon proof.

The Sealed Package

protects motorcyclist and dealer. Ask your supply man for Maroline Oil, put up in handy tins—halves, ones and fives (gallons). Insist on original tins.

If your dealer doesn't carry it write us, giving his name, and we'll see that you're supplied.

MARSHALL OIL COMPANY
-INCORPORATED-
Marshalltown, Iowa, U.S.A.

To Dealers: Price for 50-gallon lots, same in tins as in barrels, thus protecting you against leakage. Cases packed as follows:

Two 5 gallon lithographed tins
Twelve 1 gallon lithographed tins
Twelve ½ gallon lithographed tins

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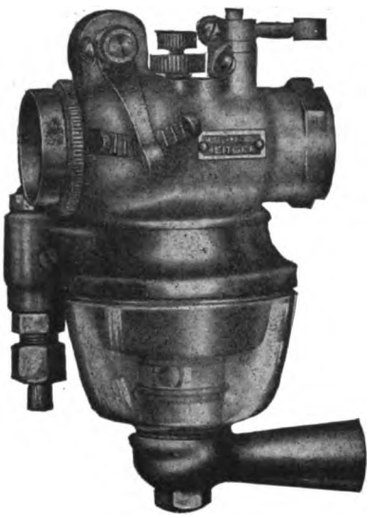
HEITGER MODEL K—1913

Made in ¾" and 1" pipe threads, and special threads for Spacke, Pope, H-D, Excelsior, Merkel, and Emblem, same list, ¾", $10.00; 1", $10.50. Where special fittings are needed, extra price. Has new air valve, no friction, or stems to wear, causing air leakage in low; air adjusted instantly from saddle, for starting, etc. Needs no priming in coldest weather. Furnished with glass or metal bowls, same price, the two being interchangeable.

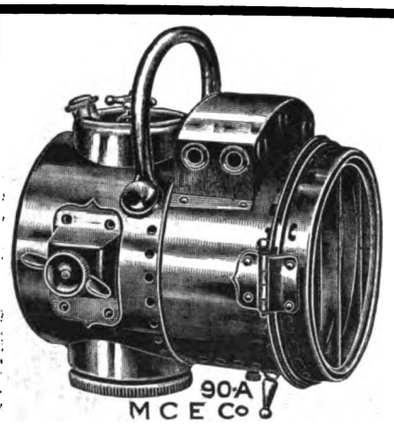


HALF SIZE

Has new gasoline feed, two jets, one for low, one for high, with separate adjustments, giving minimum and maximum speeds. Owing to air valve action, etc., gives greatest possible speed to motor on minimum gasoline consumption. Light in weight, castings of aluminum, polished nickel plate.

Heitger Carbureter Co.

1129 Beecher St., INDIANAPOLIS, IND.

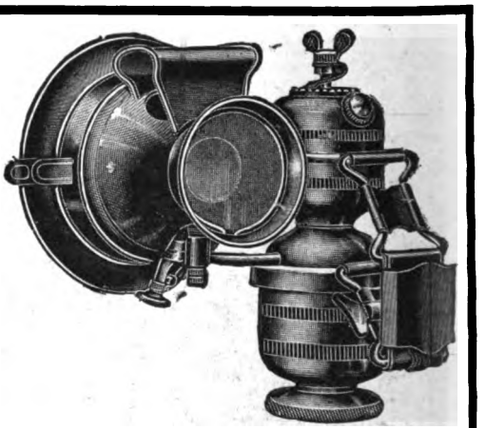


An Ideal Motorcyclist's Lamp. A "Close Coupled" Searchlight and Generator Combined. Weighs 28 ounces; size, 4 x 5 inches. Nickel Plated, Neatly Designed. No. 90 rear prop; No. 90A, side props.

Price $6.00 each

Dealers! Your Attention Please!

Do you realize that our enormous stock of high-grade automobile, motorcycle and bicycle supplies is **entirely** at your disposal? That not one penny's worth is sold to the rider direct? Consider what this means to you. Here are two stunning successes any dealer can handle with amazing results.



Duplex "Self-Lighter" Lamp

The law in most States requires rear lights on bicycles and motorcycles. The combination Duplex MEETS THIS REQUIREMENT. It lights up the road in front of the rider and also shows a RED LIGHT WARNING SIGNAL in the rear. This lamp is finished in nickel, has a flare-front door 4½ inches across and is fitted with a compact generator 2¼ inches in diameter. Height of lamp 5½ inches. This lamp attaches to fork on left side of wheel.

Price $3.00 each

Tear this out

I am a dealer and want to be placed on your mailing list.

Name .....

Address .....

Tear this out

The Motor Car Equipment Co.

55 Warren Street New York, N. Y.

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WARNING

Every motorcyclist is looking for a pleasant warning signal which will work equally well in the city, or country and under all conditions.

1913 BARCO MOTORCYCLE CHIMES

offer the only solution to this problem. They are much larger than last year's model, and the three tones are deeper and richer. It is remarkable what a volume of tone may be produced with this horn on the average motorcycle and how easily the horn will blow.

The Barco Outfit is easily installed and will attract attention everywhere.

The Barco Chime Valves are the only valves with an absolutely unobstructed exhaust passage. Experienced motorcyclists appreciate the necessity of keeping the exhaust free from obstruction and back pressure, and this is only accomplished by the Barco Valve.

BARCO BRASS & JOINT CO., CHICAGO

Billings & Spencer Tools

"The tools that are guaranteed"

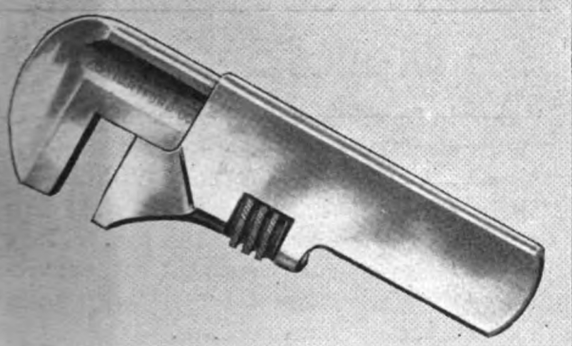
Motorcyclists need strong, easily adjusted and thoroughly reliable tools. For these qualities BILLINGS & SPENCER Tools are recognized by motorcyclists and tool users in general to be unequalled.

They have more than forty years of practical tool making experience behind them.

Write today for catalog.

THE MARK OF QUALITY B THE BILLINGS & SPENCER CO. HARTFORD

BILLINGS & SPENCER CO.
HARTFORD CONN.



"The Coventry" Chain

"THE MOTOR'S TRUE MATE"

There is something in the smooth, frictionless, powerful, supple action of a good chain that gives the rider a confidence in his ability to surmount every obstacle in the road with unfailing regularity; a confidence which no other transmission can afford. Just as surely as the chain is the ideal transmission are The "Coventry" chains the ideal chains.

Get our catalog and send 10c. (to cover postage) for one of our "Coventry" tiger-color pennants.

Sarco Engineering Co.
112 Broad St., N. Y.

Abesto-Pull-E-Tape

The only article on the market which will do away with belt trouble. Gives wonderful results when wrapped two or three times around pulley. Prevents belt from burning, hardening and becoming glossy.

No Screws to Cut Belt

Made in all standard widths. Price, 50c. a roll.

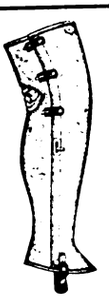
Dealers, write at once for our proposition. It's a live one.

KRAFT APPLIANCE CO.
150 E. Exchange Pl., Akron, O.

Made in Dixie Wear Like Sixty

HALCO HALCO BRAND **LEGGINGS**

Cost But Moderately



ARE PROFIT MAKERS FOR YOU

Mr. Jobber and Mr. Dealer, because they sell almost on sight and they please in every particular. Our sales of many thousand pairs last year will be more than doubled in 1913.

There's A Reason For Their Popularity

There's a wealth of Comfort and Wear in every pair—the quality is uniformly the Best—their Stylish Shape will keep indefinitely. In a word they completely satisfy.

Take Tip from Us—Catalogue and Stock Them.
Dealers Send for Catalogue P. D. Q.

A Pair for Every Pair of Legs

Hagerstown Legging Co., Hagerstown, Maryland

A Price For Every Purse

When writing to advertisers, please mention MOTORCYCLE ILLUSTRATED.

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HARRIS
TRADE MARK REG. U.S. PAT. OFF.
OILS

Make A Good Motorcycle Better

Because they increase its efficiency. Motorcycles are especially susceptible to poor lubrication—likewise, they quickly respond to good treatment. Cheap oils not only give poor results, but injure your machine. Special care is taken in making our motorcycle oils, and the same high standard of quality found in our other products, is maintained.

Only the ***best*** crude stock is used, and every process of its manufacture is carefully tended by experts. Treat your motorcycle right—lubricate it with HARRIS OILS—it will fully repay you in service.

See our exhibition at the Boston Show. Space 510, Dept. F.

A. W. HARRIS OIL COMPANY

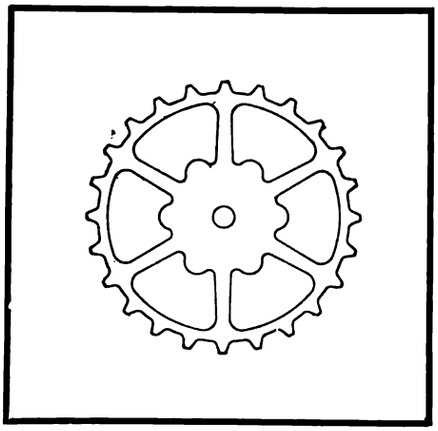
326 S. Water St.
PROVIDENCE, R. I.

143 No. Wabash Ave.
CHICAGO, ILL.

A Little Goes A Long Way

And Every Drop Counts

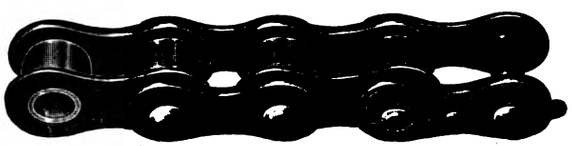
SPROCKETS



Hydraulic Pressed Steel Co.
Cleveland, Ohio

Your Motorcycle

should be equipped with chains that will stand up under all conditions. You can depend upon the "Whitney" Chain whether in rain, mud, sleet or snow; they are always on the job. They give the maximum amount of service because they are made by men with years of experience in chain making.



When making replacements insist on a "Whitney."

"Whitney" Chains Are Built for Strains

The Whitney Mfg. Co.
HARTFORD, CONN.

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Open

$1.00

Insure Your Motorcycle

against theft or unauthorized use. The Waterbury Motorcycle Lock is the strongest and only practical lock made. Fits any machine. Instantly snaps around two front forks and through front wheel. Impossible to force lock or move machine without breaking all spokes of front wheel. Easily carried in any pocket or tool bag. Made of solid brass with heavy hard steel, nickel plated shackle. Get one now from your dealer or sent prepaid upon receipt of $1.00. Money refunded if not entirely satisfactory.

Waterbury Hardware Company **414 Broadway, New York**

Closed

$1.00

Fourteen Thousand Riders Read

THE MART

OUR CLASSIFIED ADVERTISING PAGE

THREE CENTS A WORD

MONARCH

"It Stands the Test"

IVES MOTORCYCLE CORPORATION, 200 John Street Owego, Tioga Co., New York

Distributed by Lowe Motor Supplies Co., 1727 Broadway, New York; Poulton & Hostetter, 20 S. 57th St., Philadelphia; John W. Grove Co., 624 Liberty Ave., Pittsburg; V. E. Yapp, Esbon, Kansas; Lincoln Holland, 1034 S. Main St., Los Angeles, Cal.

"THE ARISTOCRAT"

PLEASURE SIDECAR

"UNDERSLUNG"

SPRING WHEEL SUSPENSION

RESULT OF THREE YEARS' PRACTICAL SIDECAR EXPERIMENTS

PLEASURE CAR MADE IN ONE BODY TYPE ONLY. COMMERCIAL VANS WITH STANDARD BODIES AND SPECIAL BODIES. STANDARD VAN BODY WILL FIT CHASSIS OF PLEASURE CAR.

215-219 ENGLEWOOD AVE. ANGSTEN-KOCH COMPANY INCORPORATED MAKERS OF GOOD SPECIALTIES CHICAGO CHICAGO, ILL.

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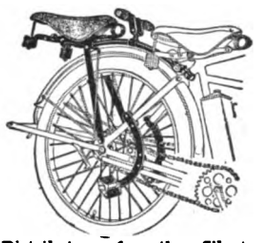
"Bu-Rem"

Tandem Attachments for 1913 INDIAN

Price complete with Mesinger Superba Saddle $15
Price less saddle $10



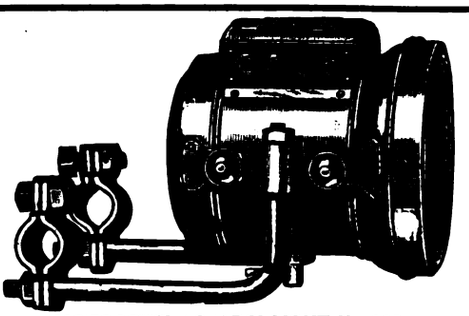
Distributors for the Silent Indian, Cincinnati and Vicinity.

The "Bu-Rem" Tandem is the safest and only practical tandem for use

on 1913 Indians

Write for complete catalogue describing "Bu-Rem" Tandems, Electric Light Outfits, Crank Case, Protectors, Dust and Mud Shields.

THE BUMILLER REMELIN CO.
Manufacturers—Jobbers—Dealers
Cincinnati Ohio



MOTORCYCLE SEARCHLIGHT No. 102
Showing Back Closed

20th Century LAMPS

For Motorcycles and Bicycles

Throw a Powerful Direct Ray

UNEQUALED FOR STRENGTH, COMPACTNESS EFFICIENCY

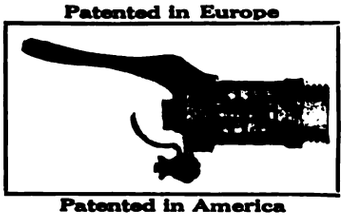
Catalog on request

20th Century Mfg Co

420-22 Ogden Street
NEWARK, N. J.

SPEED WITH ECONOMY

Patented in Europe



Patented in America

The M&M Economizer is guaranteed to increase your speed and power 20%, **WITH LESS GASOLINE**, and **LESS CARBON. IT IS ALSO GUARANTEED** to save from 40 to 50% of gasoline. It is the only known carbureter adjuster on the market. Do not throw your old carbureter away until you have applied our device. **THEN NOTICE RESULTS.** It is **GREAT** for priming the engine, and acts in the capacity of an air brake.

The M&M is nickel plated and highly polished, and it is positively air tight when closed. It requires a ¼" pipe tap to insert into manifold. It is made with six portholes, which when open, admits auxiliary air into the manifold.

READ THIS! Then watch for next month's testimonial.

Dunellen, N. J., February 21, 1913.

Moller Bros., Philadelphia, Pa.

Gentlemen: I beg to advise the results that I have received from your Economizer are satisfactory thus far. Owing to the recent bad weather, a thorough test of gasoline consumption was impossible, but your Economizer gives all you claim for it in the way of added speed. I have installed it on a PIERCE single, and find that it increases the speed by giving a perfect mixture at all times, a thing which no ordinary carbureter can do. I am sure I will let you know favorably in the near future in regard to the gasoline consumption.

Yours very truly,
(Signed) E. J. PARKER.

Money refunded in 30 days if unsatisfactory. **PRICE $1.25 Prepaid.** **Send for catalog and information.**

BEWARE OF INFRINGEMENTS.

Moller Brothers Controller & Economizer Company

Main Office: 700 Betz Bldg., Phila., Pa.
Factory: Lewistown, Penna.

Keco

An Electric Motorcycle Horn

PRICE $3.50

Ready for delivery April 1. Finished in Brass and Black Enamel. Attaches to Handlebar. Complete with Push Button and Wire.

Add your name to the already large list of dealers who were literally "electrified" by our announcement

GEORGE W. SHERMAN -:- Distributor for the United States
76 Blaine Ave., Detroit, Mich.

MANUFACTURED BY THE **KOSMAK ELECTRIC CO.**
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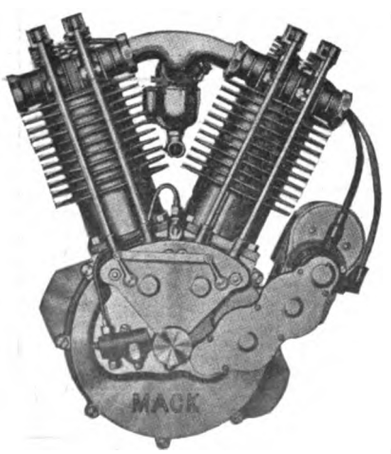
"OMC"

Motorcycle Supplies

If you want to secure "Gulliver" quality at "Lilliput" prices—or in other words—a lot of value at small cost, send for our catalog of OMC motorcycle supplies. Everything for the dealer and rider. Don't fail to get our catalog.

OBERWEGNER MOTOR CO.
TOLEDO, O.



Investigate—Then You Will Appreciate Mack Superiority

Investigate—compare—critically examine every detail of the MACK MOTOR. Grasp the manifold advantages offered in this new conqueror of the road and track. Note the special alloy drop forged steel motor, of which material the most powerful automobile motors are constructed.

MODELS { **4 and 5 H. P. Single—Interchangeable** / **7 and 9 H. P. Twin—Interchangeable**

Realize the unexampled convenience of the micrometrically measured parts, which make them absolutely interchangeable. Examine the MACK'S crank-shaft. Imported annular ball-bearings support it. Take a look at the oil-tight aluminum crank-case and note the high nickel finish on the cylinder and small parts.

Here is the positive mechanical oil pump. No valves to become dirt clogged—absolutely positive in action.

We are ready to handle 1913 business now. We have perfected our motorcycle motor department. We can give perfect service insofar as prompt deliveries are concerned. Our many years of gas engine experience protect the prospective buyer.

Our catalog is yours if you let us have your name and address.

THE UNIVERSAL MACHINERY COMPANY, 1913 ST. PAUL AVENUE MILWAUKEE, WIS.

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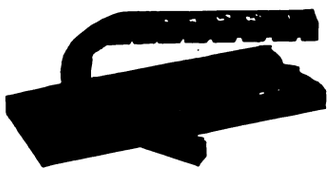
Buckskin Motor Cycle Belts

The Belts that put pleasure in motorcycling



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OUR BIG COMBINATION OFFER

To introduce our line of motorcycle pennants we will send prepaid upon receipt of $1 the following pennants—in original colors—Indian, Merkel, R-S, Eagle, Emblem, Monarch, Thor, Excelsior, Henderson, Minneapolis, Yale and Jefferson. Can you beat it? They make dandy wall decorations. This offer is for a limited time only, so hurry!

Send 10c. for sample pennant.

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The STAR LUGGAGE CARRIER

Is Built for Heavy Duty

For the rider who wants to carry an excessively heavy weight behind the saddle, the Star Luggage Carrier fills the bill.

Scientifically constructed of steel, heavily re-enforced at points of wear, the Star can withstand considerably over 300 lbs. weight. For tandem riding the spring action makes it an exceedingly comfortable seat.

The Star is handled by the leading jobbers in America. Write us.

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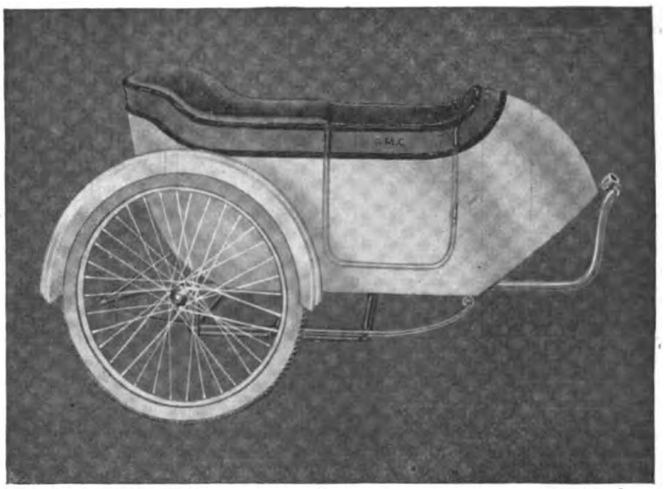

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A genuine automobile body, sixteen gauge aluminum over clear selected ash, automobile door with lever lock, automobile upholstery and automobile comfort. Will last for years, bran new whenever you have it re-enameled. Interchangeable on same chassis with delivery van shown below.

UNIVERSALS

for business and pleasure. One chassis; two bodies (separate springs attached to each). Auto-car for pleasure, Van for business. Sold one at a time or in combination at a very substantial saving in price. "Universals" are the highest grade cars built in America. Ask any one who attended the National Shows and, service and durability considered, they are the most economical.

REED BODIES, TOO

For those who prefer a reed body, "Universals" leave nothing to be desired. They are made of the finest imported reed and luxuriously upholstered.

JUST OUT: The most interesting and profitable piece of literature you can secure is the new "Universal" booklet and a post card brings it. Send **TODAY.**

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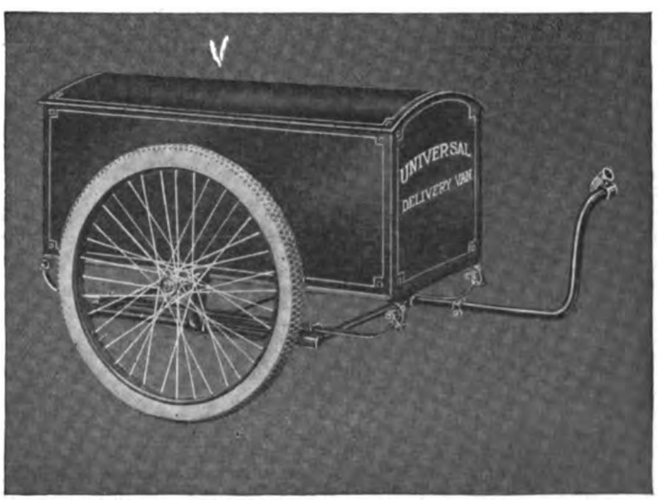
A stylish metal and composition body built to stand the wear of years. Three in one, first, a covered van; remove the top and you have an open box truck; remove the body and a substantial platform truck is at your disposal. Interchangeable on same chassis with "Auto-car" body shown above.



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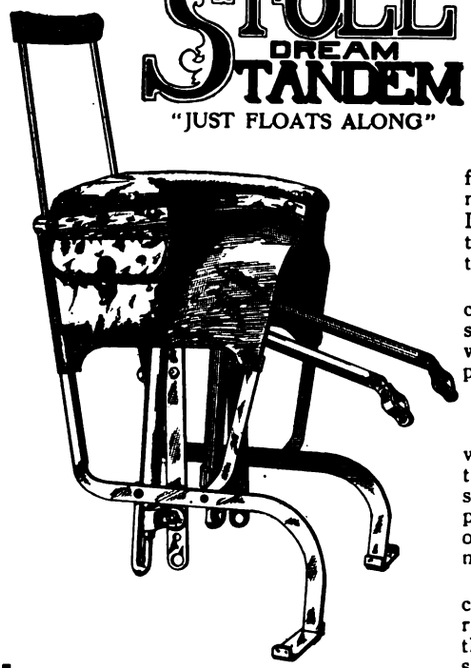
STOLL DREAM TANDEM

PATENTED

"JUST FLOATS ALONG"



A few of the features that help make the STOLL DREAM TANDEM the easiest riding tandem in the world.

Genuine leather cushions gracefully shaped and provided with skirt guard and pockets.

Folding foot-rest.

Rocking motion which allows the tandem to remain steadily in the same position, regardless of the jolting of the machine.

The back-rest combined with the rocking motion give the rider a sense of security and comfort found in no other tandem. Can be raised or lowered instantly while riding.

Send for catalog. Dealers' proposition now ready.
Get in line with the live ones.

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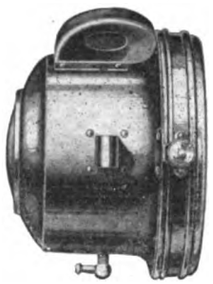
Our latest model. The greatest light producer on the market. Largest genuine mangin mirror ever used in motorcycle lamp, viz. 6½".



Specifications.

Front diameter .....8¼"
Body " .....6½"
Size of lens .....6½"
Made from one-piece heavy metal. Props and hoods solidly riveted and soldered. Adjustable focus. Mirror fastened with removable lugs.

Latest member of the up-to-date Victor line which includes the already famous X-Ray, Pathfinder, Tourist and Indian.
Dealers should not fail to get our proposition before closing contract.

Manufactured by

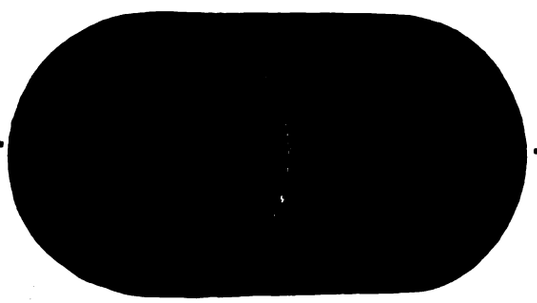
VICTOR AUTO PARTS CO.

CINCINNATI, OHIO

Selling Agents

FULTON McCUTCHAN CO.

1146 MICHIGAN AVE., CHICAGO, ILL.



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AN AIR-FILLED MOTORCYCLE TUBE POSSESSING VERY UNUSUAL FEATURES:

First: It withstands a tread puncture without deflating the tube.
Second: The higher the pressure the tighter the puncture closes.
Third: It eliminates the risk of destroying casings by reason of punctures.
Fourth: The danger of loss of control of machine is removed.
Fifth: It assures you of not being obliged to repair a puncture on the road and gets you "there and back" on full tires.

AIR FILLED ONLY.

Punctures are self-closing by reason of a scientific but simple principle of construction.

NO "DOPE," GUM, PASTE OR OTHER STUFFING MATERIALS.

Write for prices, full description and sectional sample.

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As pioneers in the production of these articles we have acquired a reputation for high quality that becomes an asset to all who use our products.

Our frame parts are made from individual blue prints only and we use in their construction only the finest quality of

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THE LIGHTEST, STRONGEST, SMOOTHEST STEEL TUBING MADE

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The motorcycle lamp that searches the way to safe and joyous riding. Its powerful rays pierce the darkest night and light the road so far ahead of the rider that all strain and worry of night riding are immediately overcome.

You can turn or set it at any angle — enabling you to thoroughly explore any descending grade or curve and to have light for repairs on the rear wheel.

To be equipped with a Pathfinder means all the comfort of daylight. The material and workmanship are the best and we guarantee entire satisfaction.

UNEXCELLED FOR MOTOR BOATS

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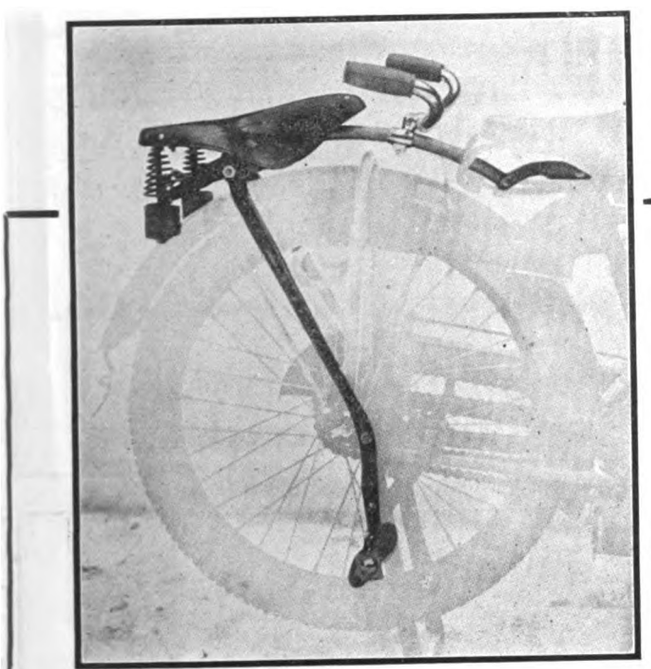

Patent applied for MODEL A

MUELLER TANDEM ATTACHMENT TO FIT ALL INDIAN MOTOCYCLES

Specially Adapted to New Spring Frame Models

MODEL A attachment is for 1913 spring frame machine and does not interfere with frame action. Attachment is made of steel tubing and drop forgings, well brazed—enameled and nickeled. Large Troxel motorcycle saddle, adjustable handle bars, standard No. 3 pedals. Enameled red to match motorcycle.

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DIFFERENT motorcycles need different lubricating oils.

Some one of the several grades of Gargoyle Mobiloil will get the greatest efficiency from your motorcycle.

Send us the name and model of your motorcycle. We will tell you the grade of Gargoyle Mobiloil that is best suited to it.

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THE INSTRUMENT OF PERMANENT ACCURACY

New unbreakable steel shaft casing, heavy bevel joint. Nickel steel gears. Special axles for all motorcycles requiring swivel fittings. Drop forged and hardened swivel fittings with large bearing surfaces. Ball bearings in the bevel joint, shaft coupling and main spindle. The new outfit will stand hard usage without injury.

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Fittings Patented, the Only Practical Ones in Use

$16.00

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Dials 60 or 80 Miles

Every effort has been made to produce the neatest, most accurate, and above all, the most durable speedometer manufactured to date.

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MADE OF HEAT DEFYING, PERFECTLY INSULATING PORCELAIN—AND DESIGNED FOR MOTORCYLES ONLY

No need any longer to use the inferior mica plug or a makeshift porcelain. This new Motorcycle Standard Spark Plug, built by the greatest manufacturer of spark plugs in the world, gives motorcycle riders a plug with a porcelain insulator that is faultless, defies heat and insures perfect ignition.

MOTORCYCLE STANDARD SPARK PLUG—$1.00

Leading motorcycle engineers of the country have pronounced this plug right in principle and construction. The length over all is 2¼"—just the right size for the limited dimensions available for a spark plug in the motorcycle motor. The porcelain is made in our own potteries. Heat cannot crack it. The bushings are case hardened. The terminal nut will take ordinary wire, ring, or special "Indian" terminal.

Comes in half-inch or metric sizes. Your dealer will supply you—or sent prepaid on receipt of price and size. Our guarantee—"Your money back or a new plug, unless you are absolutely satisfied."

Jeffery-Dewitt Company 55 Butler Avenue, Detroit, Mich.

The Miller "Block" Non-Skid Tread" Tire

Satisfies the demand for a stronger and larger tire. Its construction is such that it can withstand the most severe road conditions with minimum wear. **Prepaid to all Points.**

Miller's Non-Skid "Block Tread" Motorcycle Tires

Size	Tubes and Casings Guaranteed	Heavy Red Tubes	Tube Casing
26x2½	"Block Tread"	$2.60	$8.00
28x2½	" "	2.75	8.80
28x2¾	" "	2.85	9.75

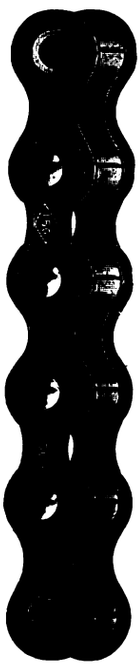
Miller's Improved Adjustable Sectional Vulcanizer

One of the 37 kinds we manufacture. Repairs perfectly all sizes Bicycle, Motorcycle and Auto Tires and Tubes.

Our 44-page catalog, covering Auto Tires, Tire Repair Stocks and Tire Re-Liner, is yours for the asking. We also make the Standard Grade Tire, which is corrugated. This tire is lighter, but of the same quality of rubber and friction.

CHAS. E. MILLER
ANDERSON RUBBER WORKS
ANDERSON, IND.

"We have used Diamond Chains exclusively for starting chains on the Wagner Motorcycle for the past six years. Always most satisfactory."



Testimony like this from such a well-known firm as the Wagner Motorcycle Co. should be more convincing than all we can say about the high grade material and exceptional, machining that goes into every part of a Diamond Chain.

Twenty-one years of supremacy makes Diamond Chains worth all the praise they get. Look for the Diamond trade mark on the connecting link when you buy a new chain.

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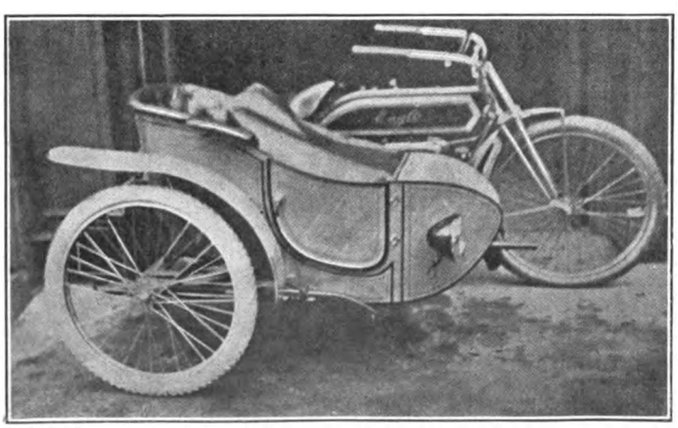
Capacity 8,000,000 feet per year. 121
SAMPLES SUBMITTED.



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are the result of eight years' experience in frame and body building.

The Simplex is light, graceful, yet tremendously strong. Its body is made of sheet steel, comfortably upholstered—upholstering which WILL NOT FRAY, and keeps its shape.

High protecting dash and floating mudguard complete the classy, efficient appearance of this "king of sociables."

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MOTORCYCLE OIL LAMP

(Patented)

SHOWING A RED REAR LIGHT

THE ONLY RELIABLE MOTORCYCLE OIL LAMP

LAMP WEIGHS ONLY 12½ OUNCES.

The Neverout complies with the laws of the various States and Municipalities.

The Neverout burns kerosene ten hours with one filling, and will stay lighted under any and all conditions. All riveted—will not rattle or jar apart over roughest roads.

Made in gun metal, brass or nickel finish. Double clamp bracket furnished; fastens lamp securely to fork of motorcycle. No danger of shaking off, and *shows red rear danger signal.* Sold by leading jobbers and dealers everywhere.

The Neverout is equipped with a *Patent Glass Covered Reflector of German Silver,* instantly removable; never loses its original brilliancy.

Guaranteed to stay lighted or money refunded

FOR SALE BY LEADING DEALERS.

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For every letter in its name the Baxter Sidecar possesses a good point. Its seamless steel tubing with double reenforcements, its wonderful spring wheel, its scientific distribution of weight all make it

The Strongest, the Lightest, the Most Comfortable Sidecar in the World

Its recent transcontinental run demonstrates conclusively that the Baxter was built to stand up. And yet—mark this—you do not need a powerful twin to handle the Baxter. A good single can do the trick every time. Write us about it.

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NATHAN

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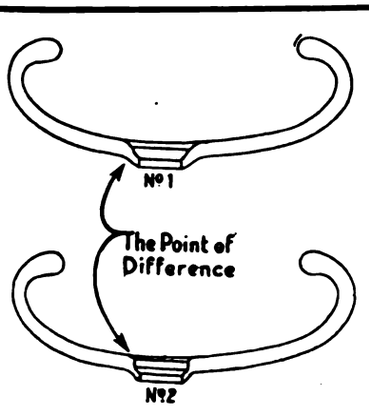

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THE superiority of the Mott motorcycle rim lies in the little points that the average riders never notice, but that show up strongly in hard service. For instance, take the way the spoke holes are punched. On Mott rims this is carefully and accurately done so that there is ample strength to hold the nipple securely. Sketch No. 1 shows the idea.

Most other rims come out like No. 2. This part of the work is hurried over, carelessly done, and as a result the holes are counterpunched too deep, making a weak spot, which often allows the nipples to pull through the rim.

Mott thoroughness shows up in the tests. Note the wheels that come through the severe endurance runs in the best condition. You'll find them fitted with Mett rims. To be sure of satisfaction, specify Mott rims for your machine.

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THEY WILL SETTLE THE RIM PROBLEM FOR ALL TIME

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Easily carried, as the small bundles they make in their canvas bags take so little room that they could be carried in your pocket, when not in use, without inconvenience.

Speed With Safety on the Motorcycles!

Order them from your dealer or write Dept. B for particulars

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The Great American Eagle Built by AMERICAN MOTOR CO. BROCKTON - MASS.

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Price, $7.50 Send for complete catalog.

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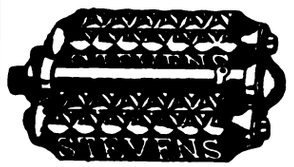

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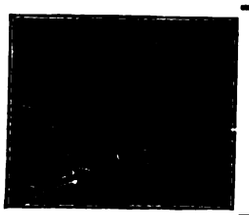

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A SIGHT-GLASS OIL GAUGE

For the crankcase of your engine. Shows the oil level at all times. Makes engine run steady. Plugs will not foul. Can be put on any machine in 15 minutes. Fits Harley, Excelsior, Jefferson, Flanders, etc. Shipped complete with tools, $1.50. Circular free.

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IT'S GUARANTEED

1. To increase power 20%; 2. To save 20% Gasoline;
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You will never know how perfect your Motorcycle can run until you try SPEEDO. Attached in five minutes on intake manifold. Your money is refunded if you are not pleased

PRICE, $2.50, Including Decarbonizer

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Works Perfectly When Throttled Down to 230 Revolutions Per Minute.

At over 3,500 revolutions it is just as effective.

All air ports have been enlarged.

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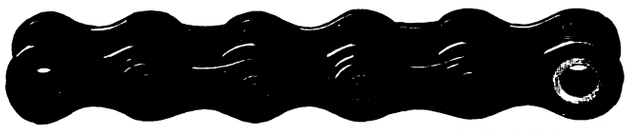

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Service Chain has been adopted by all High Grade Makers—Why?—An investigation will show you

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The tremendous rush of orders which come pouring in daily is eloquent evidence of the fact that riders are daily realizing more and more that Quality and Atlas Motorcycle Fabric and Metal Specialties are one and the same.

Our large and comprehensive line is sure to contain something **you** need. Get our catalog.

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SPEEDOMETERS LAMPS HORNS
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And all other motorcycle accessories

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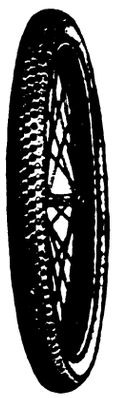
Distributors for Greater New York and Long Island for Indian Motocycles.



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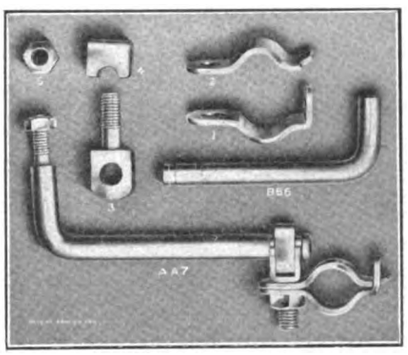
In 4 Glidden Tours—
Twin Cities to Fargo, N. Dak., 1909—Twin Cities to Helena, Mont., 1911—New York City to Jacksonville, Fla., 1911—Twin Cities to Winnipeg, Can., 1912.

It only costs one cent
to learn our unheard of prices and marvelous guarantee on Brictson Detachable Treads.

Write today for full particulars.

THE BRICTSON MFG. CO.
2533 Main Street Brookings, S. Dak.



Fitsall Lamp Bracket

Patent applied for.
Fits all Standard makes of Lamps.
Can be used on any Motorcycle — straight or "V" shaped Handlebar.
EASILY ADJUSTED.
Per pair, $1.25.

HUB CYCLE COMPANY
14 Portland St. Boston, Mass.

Increased Tire Efficiency

means lessened expense and increased efficiency for the entire car. Secure it by using these Narco products.

TIRENEW TRADE MARK — a liquid, unvulcanized, rubber compound — waterproofs and protects the inner fabric from decay.

Makes Tires Look Like New

Narco
TIRE CUT FILLER

a self-vulcanizing, combination, rubber cement, cut filler and mastic. Fills cuts and puncture holes—heals over night—becomes like a part of the tire. Dealers—Car Owners. Send $1.00 for a trial can of Tirenew—enough for 10 tires.

National Rubber Co. 4438 Narco Bldg., St. Louis, Mo.

WOULDN'T IT BE A PLEASURE

to run through a whole season on an oil that lubricates perfectly, and without having to bother with "fouled" plugs or "carbon" troubles?

HARRIS AUTOIL

WILL GIVE YOU THESE RESULTS.

Try Some At Our Risk for 30 Days.

Have your dealer get you some or send direct for delivered price and Booklet—HOW TO TELL PENNA. OILS.

HARRIS OIL CO. - 620 Mulberry St., Muncie, Ind.

FEDERAL MOTORCYCLE TIRES

"EXTRA SERVICE"

Federal Rubber Manufacturing Co. - Milwaukee

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The Future of the Motorcycle

Right now the prospects of the motorcycle are very bright. The one single possible bugaboo that hangs over the trade is that unhealthy mania for an impractical speed. Accidents on the track and road are invariably the result of "speedomania," and that is what gets us in wrong every little while with the general public. Remember, the real growth of the motorcycle business depends upon that same general public, thinking we're all right.

Practically every motorcycle engineer and designer knows that the belt is the best transmission for road riding and general use. Any experienced dealer knows it, too. But many riders who are not skilled mechanics have "speedomania" in severe form, and want the chain for its race-track possibilities. So they order the chain and secure a theoretical speed they can never, never use, and pay a fearful price for it. The manufacturers have to cater to the "speedomania" demand, for it is easier to accede than to argue.

It's that "speedomania" that has caused the present demand for chain-driven machines, because, unquestionably, the "positive transmission" of the chain makes a theoretical higher speed possible than by the belt.

If you are a racing man you NEED that possible extra speed; but if you are just Mr. Plain Regular Rider your belt will furnish you all the speed you can possibly use and something extra corked up for any contingency.

The price you pay for your chain transmission is THE HEALTH OF YOUR MACHINE! For it is unavoidable that the racking, grinding, straining, positive action of the chain tears on the wellness of your motor. There is not the slightest "give" or pliability to the chain; it is entirely "positive," it simply cannot adjust itself to the demands of a complaining motor. If you have ever taken a motor apart you know that it is a fine piece of machinery, much too delicate to be subjected to the unyielding, gruelling pull of a steel chain.

Spartan Belts Save the Motor

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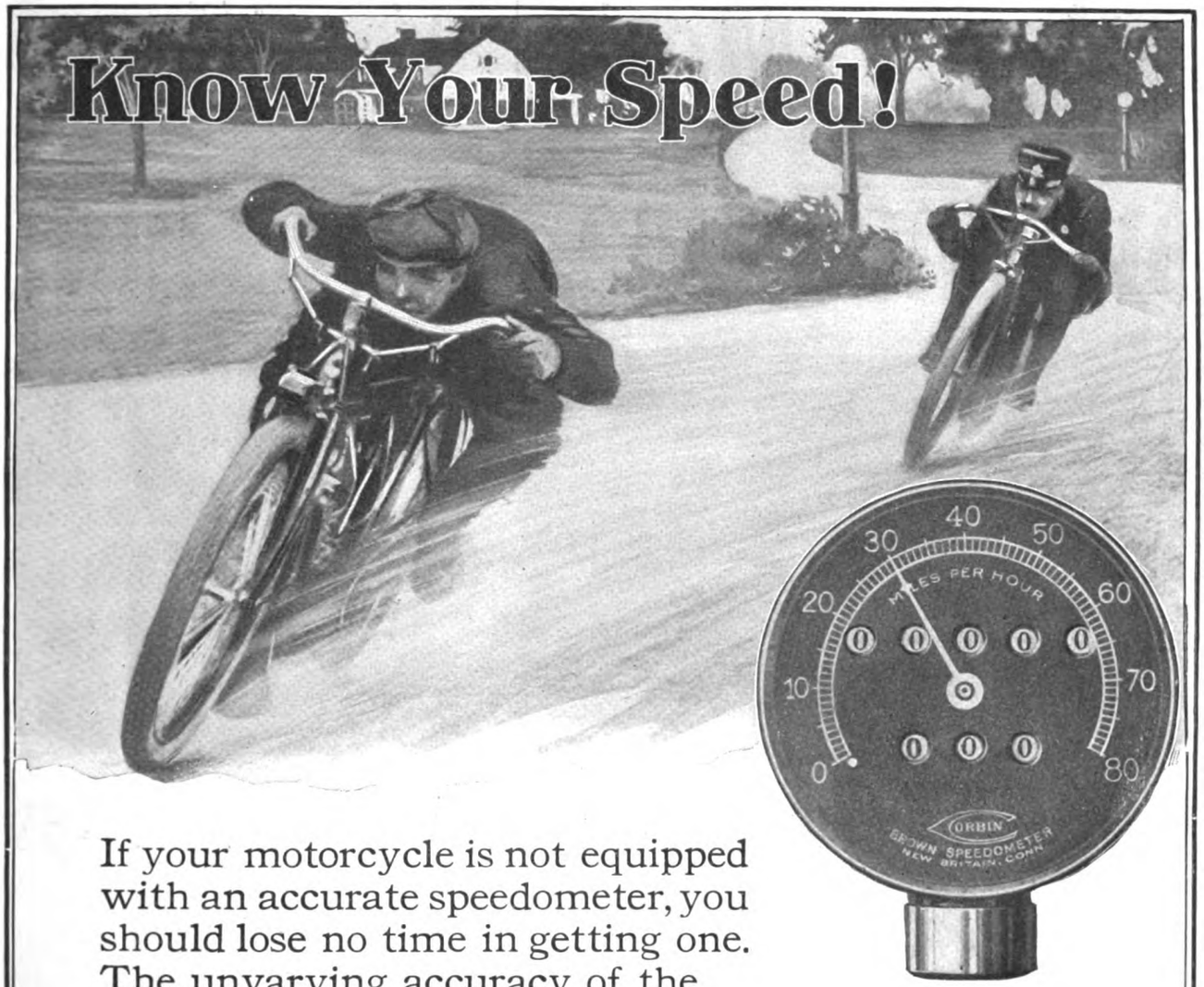
Know Your Speed!



If your motorcycle is not equipped with an accurate speedometer, you should lose no time in getting one. The unvarying accuracy of the

CORBIN-BROWN SPEEDOMETER

"The Speedometer of Absolute Accuracy"

is the result of the correct scientific principle—***centrifugal***—upon which it is built, and the strength and simplicity of its mechanism.

The Corbin-Brown will afford you more than insurance against possibility of arrest and its incidental cost through unconscious infraction of speed laws—a sufficient reason in itself for your so equipping your machine. It will enable you to keep record of your total mileage, trip mileage, tire mileage and mileage-per-gallon of gasoline.

Sold by Motorcycle Dealers Everywhere.

ORDER OF YOUR JOBBER.

Mail back corner coupon NOW.

The American Hardware Corporation
The Corbin Screw Division
235 High Street, New Britain, Conn.

Branches: New York, Chicago, Philadelphia

Makers of the famous Corbin Coaster Brakes for Bicycles and Motorcycles.

The American Hardware Corporation
Corbin Screw Division
235 High St., New Britain, Conn.

Send me your leaflet which describes in detail the Corbin-Brown Motorcycle Speedometer.

Name.....

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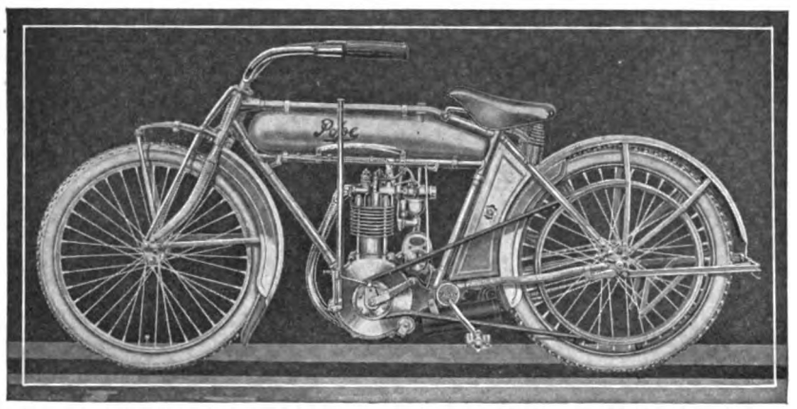
Pope, Model K, Wins Portland, Ore., Hill Climb



Model K—"Big 4"—$200—Magneto Equipped.

Contest A Triumph For Overhead Valves

A. F. Post, riding a Pope, Model K, 4 H. P., single, won its class event in the Portland Hill-Climbing Contest, held February 23, under the auspices of the Portland Motorcycle Club, defeating a field of four well-known makes.

Course	Total Rise	[redacted] Grade	Pope's Time
1940 ft. long	278 ft.	Last 200 ft. 22%	41 3/5 seconds

The Pope beat its nearest competitor by over 7 seconds. The contest was run under the F. A. M. rules—from a standing start; the street, Bancroft avenue, has a macadam pavement; the last block (the steepest grade) was very rough, with loose rocks on the surface. The best time made in the twin class was 33 seconds.

THE POPE MOTORCYCLE WITH ITS OVERHEAD VALVES IS ALWAYS THERE ON THE HILLS.

Send for Pope Catalogue and Dealers' Terms.

THE POPE MANUFACTURING COMPANY, Hartford, Conn.

Pacific Coast Distributors.

F. P. Keenan, Portland, Oregon
Northwest

Kimball-Upson Co., Sacramento,
Northern California and Nevada.

C. L. Smith, Los Angeles,
Southern California.

When writing to advertisers, please mention MOTORCYCLE ILLUSTRATED.

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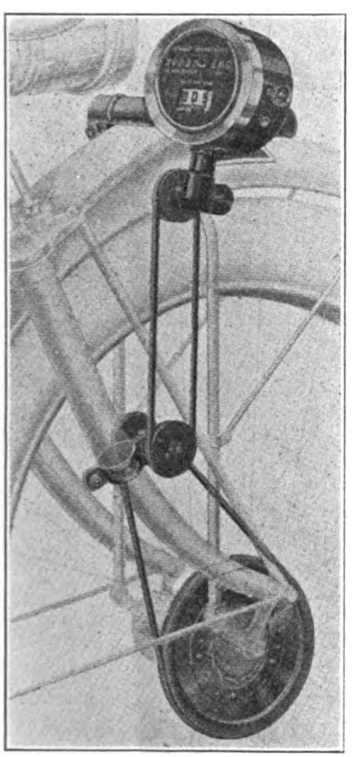
$12
Complete
Model D

75-mile speedometer; 100,000 mile season odometer; 100 mile trip register, which can be readily reset to any tenth of a mile without disturbing total mileage of season register, front wheel two belt drive complete with pulleys and brackets.

The New Stewart Motorcycle Speedometer

Magnetic Type

Showing the new Two-Belt Front Wheel Drive



HERE is the only practical motorcycle speedometer made. Just as accurate, reliable and complete as our most expensive automobile speedometers. Our Front Wheel Two-Belt Drive and manner of installation render it impossible for the speedometer to get out of alignment with its driving equipment, this because both instrument and driving equipment are attached firmly to parts that move in unison.

Is installed upon your mudguard or extension spring. As it thus is within the range of your headlight you can read it as easily at night as during the day. This is an exclusive feature not to be had with any other make.

Indicates accurately miles per hour, miles per day or trip; miles per season.

This special instrument is made on the famous magnetic principle. Over 95% of all the speedometers manufactured (for either motorcycles or automobiles) are now built on this practical principle.

For sale by dealers all over the world. Price $12 complete.

Write us for a handsomely illustrated catalogue which explains in detail, the many advantages and fine construction of this improved motorcycle instrument. This book is free. Write today.

The Stewart Speedometer Factory

1942 Diversey Blvd., Chicago, U. S. A.

SERVICE STATIONS:

Atlanta	Cincinnati	Indianapolis	New York	San Francisco
Boston	Cleveland	Kansas City	Philadelphia	Toronto, Ont.
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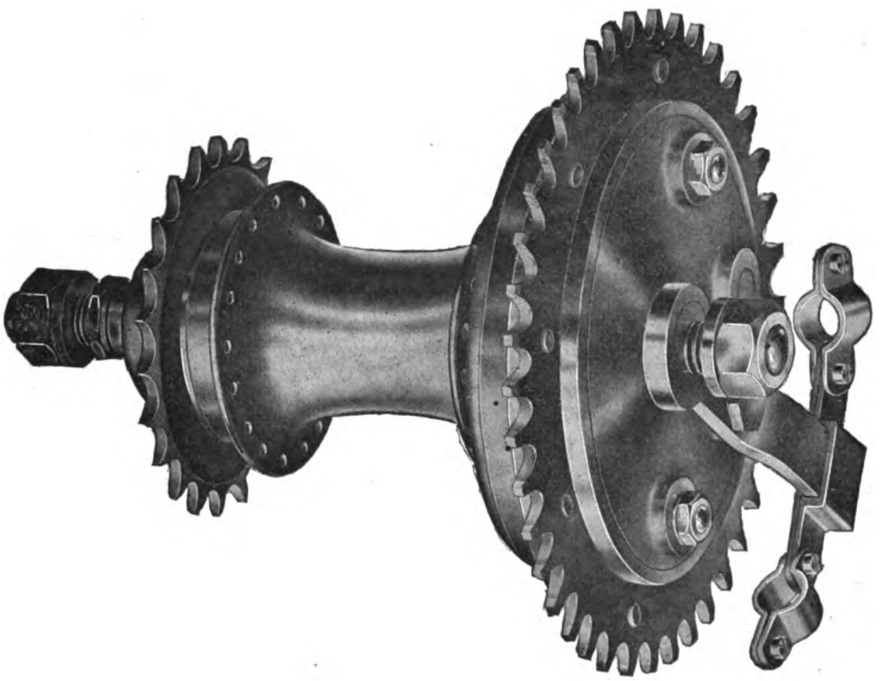

This Brake Was One of the Most Important Features of the Shows

It is exactly the same kind, type and design of a brake as is used in automobiles.

It is powerful enough to hold an automobile—or a motorcycle of several times the horse power of any now on the market.

It gives you everything the autoist has:—

Absolutely reliable control of your motorcycle under all conditions;—

Fool-proof—a brake that will not wind, bind or lock;—

A slight back pedaling pressure will exert a retarding force of a ton and a half.

You surely want to know about this newest motorcycle device.

Write for fully illustrated and descriptive literature.

The New Departure Mfg. Co. Bristol, Conn.

COASTER BRAKE LICENSORS

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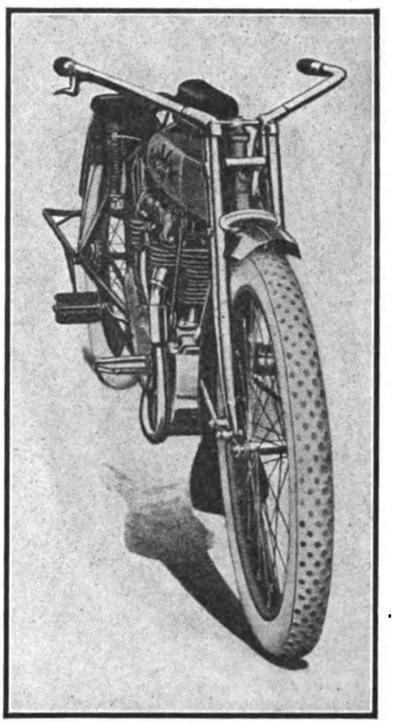
YALE

No Mistakes for Sale



Fastest road machine made, the big Yale twin. National Road Champion, $275.

WHEN any feature becomes an accepted part of Yale design, it is proof that it has been tried to the limit and has *made good*. The "Big Y" has no mistakes to regret. Experiments are all made *before* any feature is incorporated in the regular design—not after the machine has been sold to a rider.

In a corner of a back room of our factory, covered with cobwebs and lying with other mechanical junk, rests a spring frame that we built over two years—not "18 months"—ago. It is practically identical with a much-boasted-of 1913 "revelation" on another machine. Only a few week's tests proved to us that it was absolutely wrong—the fundamental principle is a mistake and can't be made good—so we discarded it and the experimental model now rusts peacefully in the junk heap.

When a man buys a Yale he knows that every point is the best that it is possible to make—not a "cheap" feature in the whole machine.

This bit of news, printed on page 19 of the February 27th issue of "Pacific Motorcyclist," the Los Angeles motorcycling journal, points a moral that all riders should bear in mind:

...ol showing a prospective custom... chine in a perfectly clean room, without interruption

...ay that 40,000 ...geles in March ...e proportion of ...n California Last 25 and October This spring

...motor- ...n Cali- ...rticu-

YALE GOING WELL

An indication of the growing popularity of the Yale in Los Angeles alone is that more than fifty riders of this city who last year had machines of other makes arranged to dispose of them so as to get Yales. The Los Angeles Motorcycle Co. is so fixed as to be able to offer easy terms, which helps. The company continues to receive large shipments from the factory, and inquiries are brisk from all parts for agencies.

...RATING

They have learned where to get real value.

Experienced riders all over the country are finding out the same thing—that it is better to pay a fair price and get a "Big Y," with real quality and real ability, than to buy a "cheap" machine with merely a racing reputation made with special machines, and get troubles and repair bills instead of service.

Consolidated Mfg. Co.

1730 Fernwood Ave. - Toledo, Ohio

Eastern Representative

F. C. CORNISH, 219 Clinton Avenue, Newark, N. J.

Pacific Coast Distributor

N. W. CHURCH, 511-512 L. A. Investment Bldg. Los Angeles, Cal.

Makers also of Yale and Snell Bicycles, Hussy Handlebars, Brazed Tubing, Bent Parts and Drop Forgings of Every Description.

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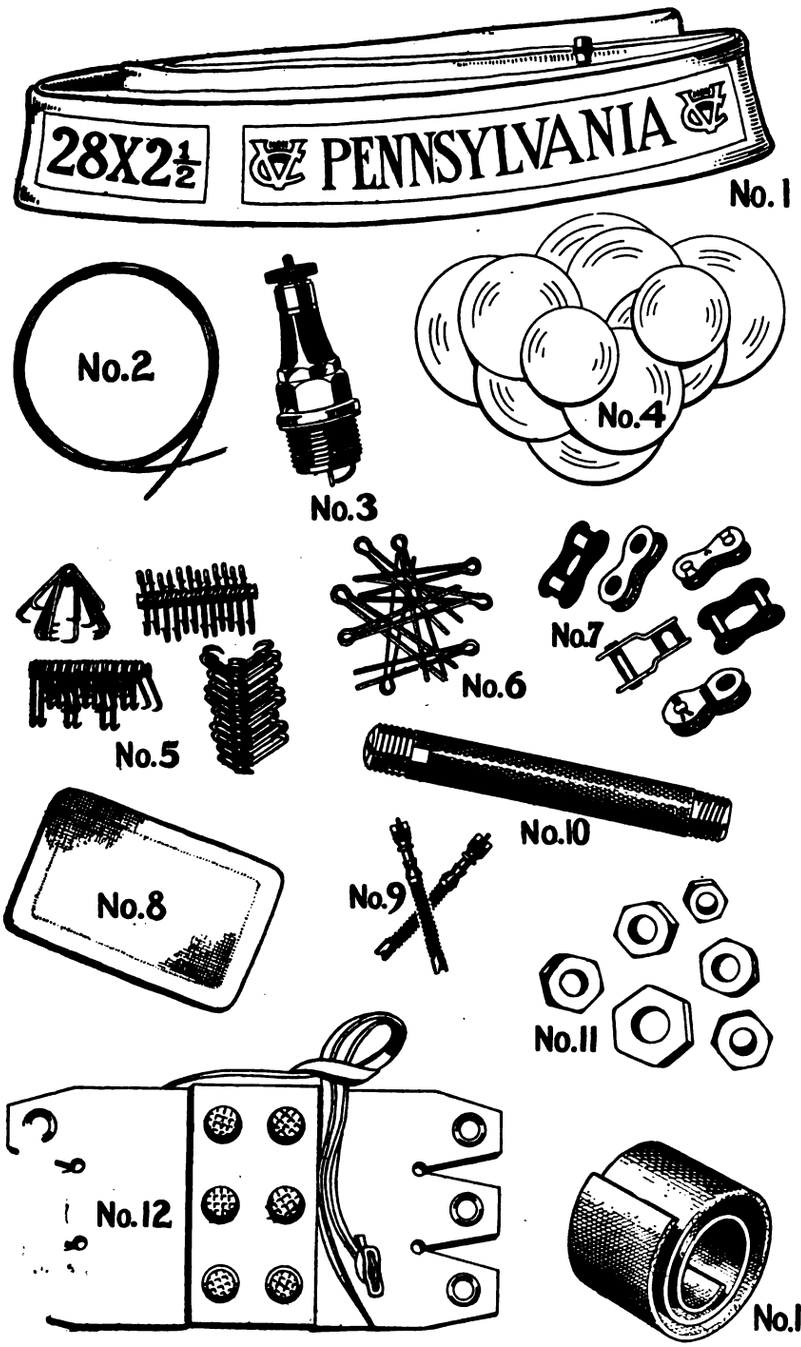
"The Emergency Friend"—Can You Beat This?

$7.80 VALUE FOR $5



No. 1—Pennsylvania Red Pure Gum Inner Tube The finest Tube that can be made. Specify size wanted—if Butt End or Endless. (Will supply Goodyear—Diamond—Empire—or U. S. make at same price.)	$3.00
No. 2—Bowden Control Wire	.15
No. 3—Kingston Mica Plug (Specify size wanted.)	1.00
No. 4—10 Cementless Patches, Assorted Sizes	1.00
No. 5—Meco Belt Shackles, Two Sizes	.40
No. 6—Spring Cotters	.10
No. 7—Coventry Chain Parts (Highest priced Chain on the market.)	.80
No. 8—Continental Inside Unvulcanized Patch	.15
No. 9—Schroeder Inside Valves	.20
No. 10—Emergency Pedal	.30
No. 11—Assorted Sizes Nuts	.20
No. 12—Genuine "Spartan" Tire Sleeve, Studded Tread	.35
No. 13—Pulley Tape Give width preferred.	.15
	$7.80

Sent Prepaid to Any Part of the United States on Receipt of Remittance

Our 1913 Catalogue is the reference book of the motorcycle rider. It's free—send for it. We save you 25 cents on every dollar spent with us.

Motor-Cycle Co-Operative Co.

473 Woodward Avenue
Detroit, Michigan

When writing to advertisers, please mention MOTORCYCLE ILLUSTRATED.

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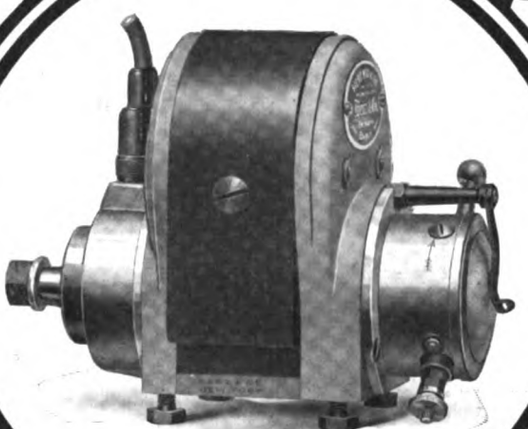
WE GUARANTEE OUR NEW WATERPROOF MAGNETO *to be* 30% *stronger than any other magneto made anywhere in the world*

Starts motor at 35 R.P.M. as against 45 R.P.M. for the best other make

Adjudged by the official English test, against 15 competitors, to be the strongest Magneto by 25%

HERZ MAGNETO



RUN SUBMERGED IN WATER ALL THROUGH THE NEW YORK AND CHICAGO SHOWS

Completely enclosed but easily accessible

HERZ & CO. *295 Lafayette St., New York.*

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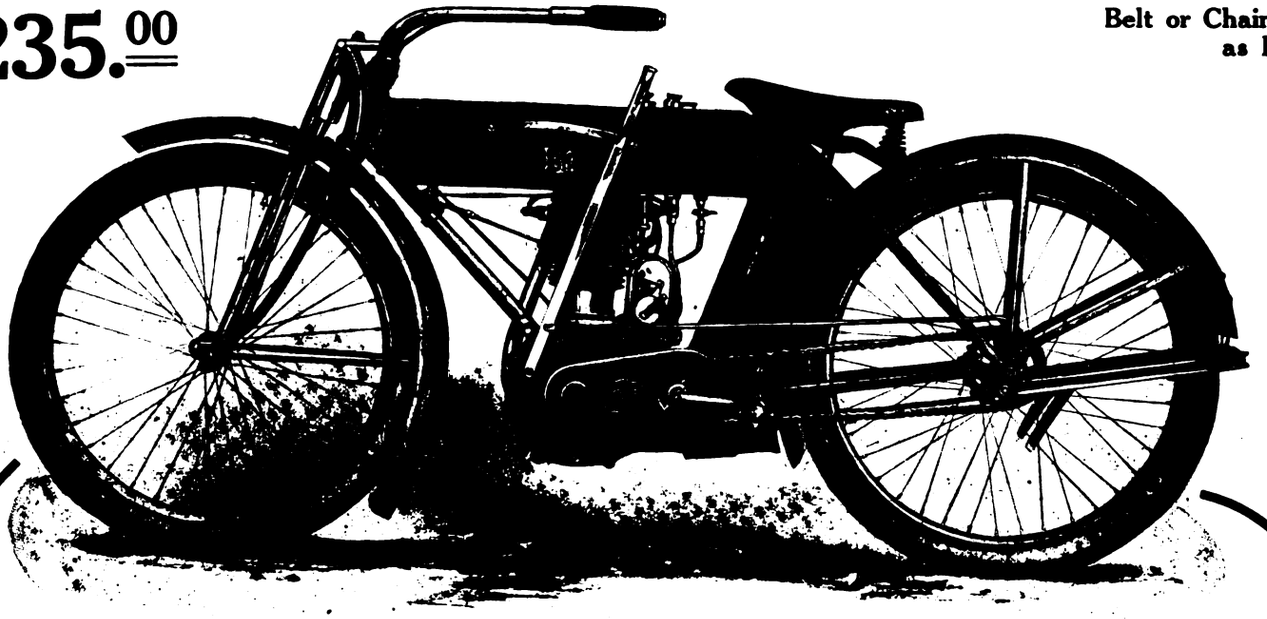
$235.00

Belt or Chain Drive as Desired



Good "Black Hawk" Territory Still Open

If you as a dealer desire to give your patrons good, sound, honest motorcycle value, you will look into our proposition and make application for agency in your territory—providing it has not already been assigned to someone else.

The "Black Hawk" Will Make Good For You

Its selling possibilities are greater than that of any other motorcycle on the market because it is so far ahead of other models when it comes to a "show-down" that competition cannot rank with it.

Another thing, very little persuasion is needed to sell the "Black Hawk." Riders have been wanting speed, power, comfort, safety—without extra cost—without buying a "twin"—and the problem has been solved in the construction of the new "Black Hawk."

The dealer handling this machine has it on his competitor, where real value, real quality is concerned—and

The rider has it on the crowd when it comes to performance, for the "Black Hawk" is the **best-looking, best-acting** motorcycle that ever came out of a factory.

Now, won't you decide to obtain the agency for the "Black Hawk" in your territory. Deliveries are certain. Write for proposition.

Trade Mark

BLACK HAWK

BH

Star Features That Sell the "Black Hawk"

In showing the "Black Hawk" to a customer, all that will be necessary to make a sale will be to point out that this motorcycle looks better, acts better—is better—and yet the price is only $235.00. For instance:

If the rider wants speed, he gets it up to 60 miles per hour.

If the rider wants power, he gets enough to take him up the highest hills, over rocky roads, over sandy stretches—through mud or snow—or anywhere he wants to go—and then have some in reserve.

If the rider wants riding comfort, the "Black Hawk" beats them all with its Spring Seat Post and Spring Fork which cannot bottom. The low center of gravity adds greatly to its ease of handling.

If the rider wants appearance, the "Black Hawk" stands way above the rest. Straighter, neater, more graceful lines, have never been seen even in the highest priced automobiles.

That's speed, power, comfort that can't be beat. And when you come to figure in the Mechanical Oiler, automatic in action—which answers the lubricating problem—the Simple Grip Control, Free Engine Clutch in rear hub—which makes the rider a master of the machine at all times—you will admit that the "Black Hawk" has it on any other motorcycle that ever came out of a factory.

If you are looking for a motorcycle that won't disappoint you or the rider, get the agency for the "Black Hawk"—it will pay you.

BLACK HAWK MOTOR CO. Dept. B Rock Island, Ill.

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Thor

Dealers, Attention

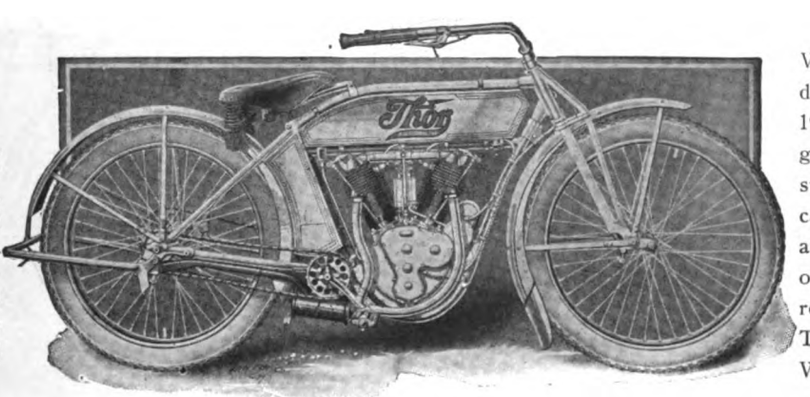
25,000 Motorcycles

IS THE MARK SET FOR THE SEASON OF 1914

This quantity of real **quality** machines will be manufactured in our new big plant located in Chicago, which will be devoted to the exclusive manufacture of Thor motorcycles. This removal into our new quarters, which cover 600,000 square feet of space, places us in position to actually produce motorcycles and fittings in the quantities demanded by our agents and riders.

THE THOR LINE

Comprises Model 13-M, 4 h. p. single at $225; Model 13-W, a 5 h. p. single at $240, and Model 13-U, a 7 h. p. twin at $290. Two-speed and two-speed control for any of the above machines, $40 extra.



We are making immediate deliveries on our 1913 models, which is giving our dealers assurance that service can be had. Dealers avail yourselves of the opportunity to sell a real quality motorcycle. They can be had. Write today.

Model "13-U" $290.00

Aurora Automatic Machinery Co.

General Offices:

Thor Building, 1307 Michigan Ave., Chicago, Illinois

Pacific Coast Distributor: A. FREED, 1440 Market St., San Francisco, Calif.

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Pittsburgh, Pa., Feb. 24th, 1913.
Continental Rubber Works, Erie, Pa.

Gentlemen: I am writing this letter to inform you of the wonderful service of a Continental Tire that was purchased by me from a Buffalo jobber last summer; this tire is the regular 28 x 2½ size and was installed on the rear wheel of a Yale Motorcycle. After 2500 miles of hard service, it was put on the front wheel and entered in the Columbus tour to the F. A. M. meet last summer, since that time the tire has traveled 1500 miles on the front wheel and has never been punctured.

This tire is still in excellent condition and has certainly proved that the tire for service is the Continental. When the buttons are off the tread, you still have some tire left and this is where the rest fail.

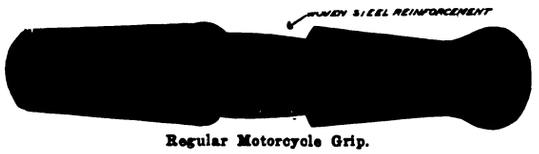
I have specified my new machines to be equipped with your tires and know I will not be disappointed.

If this letter will be of any assistance to you then use it as you wish, as all the facts are absolutely correct.

Wishing you every success, I remain,
Very truly yours,
(Signed) EARL W. DEAN.

4000 Miles on Continental-Erie Tires without a puncture!

That's Service for you!



Regular Motorcycle Grip.

Continental-Erie Woven Steel Reinforced Grips are the only grips made that are ABSOLUTELY INDESTRUCTIBLE. The Woven Steel Reinforcement in the center part of the Grip strengthens it at its weakest point and prevents it from breaking. In addition to the steel reinforcement, our Grips have an inner lining of fabric which makes them as pliable and as resilient as any other grip on the market. These are made to fit all makes of machines.

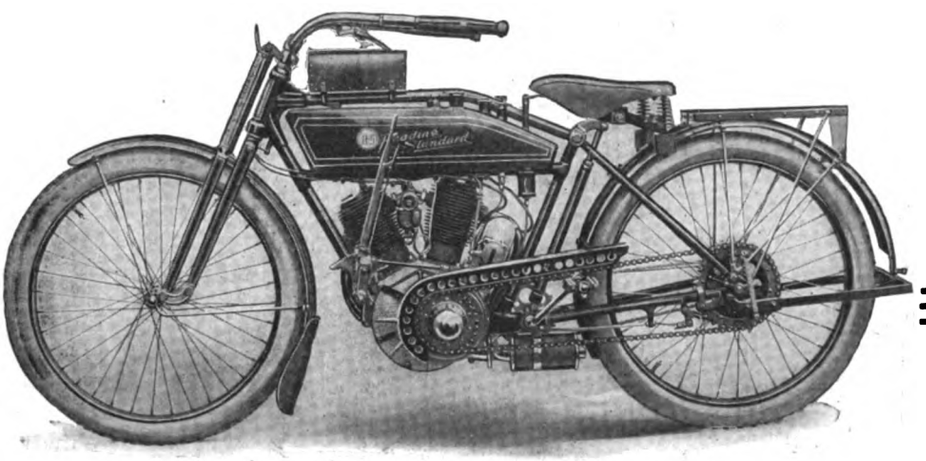
When ordering your 1913 machines, specify these Grips and thus avoid replacements.

Continental-Erie Non-Slip-Lag The only pulley lining on the market that gives entire satisfaction, prevents belt from slipping, increases power, applied without removing belt or wheel. Carried in stock by all jobbers and dealers.

CONTINENTAL RUBBER WORKS, Erie, Pa.

BRANCHES { NEW YORK 35 Murray Street | CLEVELAND 1551 Columbus Road, N. W. | CHICAGO 180 No. Market St.

Worrying About Deliveries?



Get the R-S Agency and Stop Worrying

Prompt Deliveries, Complete R-S Perfection

Near the end of the 1912 season we suddenly came to the realization that, insofar as perfecting the R-S was concerned, our work was completed. Try as we might, we could not find anything to improve in its construction.

But there was room for improvement in our service department. So we applied the same critically analytical methods, the same concentrated thought, the same keen engineering knowledge to the perfection of our factory organization as we had to the R-S itself. The result is that we can now guarantee **prompt deliveries.** Nor more need be said. It's entirely up to you.

Reading-Standard Co.
340 Water Street **Reading, Pa.**

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SPEED

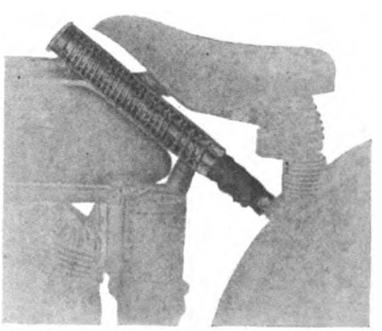
It Was Abraham Lincoln Who Said

"You can fool all the people some of the time, and some of the people all the time, but you cannot fool all the people all the time"

Dyed-in-the-wool motorcycle riders—those veterans who have been riding motorcycles ever since there were any motorcycles—are not easily misled. New riders and prospective motorcyclists, however, may be deceived by misleading advertisements, and it is for this latter class that this advertisement is written. Those men who have been riding for years will admit that all the laurels ever won by the Flying Merkel Motorcycle—and their number is legion—have won by sheer merit, nothing else. We have never "pulled off" phony road races, endurance runs, and hill climbs merely to be able to write an advertisement about it. We have never said that all other motorcycles are wrongly constructed except the Flying Merkel, for it would be an untruth. All our advertisements have been plain statements of facts. We do say, however, most emphatically that the Flying Merkel has been the pioneer in many features now practically accepted as standard by leading manufacturers. The Flying Merkel was the first motorcycle to employ a loop frame; the first to market a magneto model and the first to market magneto models exclusively; it was the first to make a ball-bearing motor; it was the first to employ a spring frame and now is the first and only motorcycle in the world employing a self-starter for its engine. That is undeniable motorcycle history.

A PLAIN HONEST STATEMENT OF FACTS!

Because it embodies so many new and exclusive features certain manufacturers recently have attempted to belittle Flying Merkel features which they themselves have attempted to copy without infringing on our patents. The Flying Merkel Spring Frame compelled every other motorcycle manufacturer to seek some device of comfort for the rider. In the 1913 Flying Merkel motorcycle the EXCLUSIVE Spring Frame is positively the most comfort-promoting device ever offered the motorcycle buying public. Instead of two jiggley springs placed where they can easily rust, thereby losing their resiliency and breaking, causing serious inconvenience to the rider, the Flying Merkel Spring Frame employs but one spring, placed in a steel barrel, so that no dirt or water can injure it, and constructed in such a manner that it is kept lubricated at all times, and can be readily adjusted to compensate for wear or for varying weights of riders. In addition there is a recoil spring and a pneumatic plunger which further promotes comfort. This spring frame contains 306 inches of spring steel instead of about 100 inches as in most machines. Before being adopted, these springs were tested over thousands and thousands of miles of the roughest kind of roads, and—POSITIVELY NOT ONE OF THEM HAS EVER BROKEN AND WE DOUBT IF THEY EVER WILL. Should for any reason one of these springs break it would be possible to ride the machine the remainder of the season in safety. We ask you, Honest rider, to examine every spring device on the market and judge for yourself whether or not you would be able even to get home should *ONE* of the springs break. As in the past, we shall continue to win the approbation of the rider purely through the merit of our machine and not through purchased space in the newspapers.



"The Man Who Owns One Does Our Advertising"

Have You Seen Our New Catalog?

The Miami Cycle & Mfg. Co.

300 HANOVER STREET
MIDDLETOWN, OHIO
MEMBER M.M.A.

POWER MIAMI COMFORT

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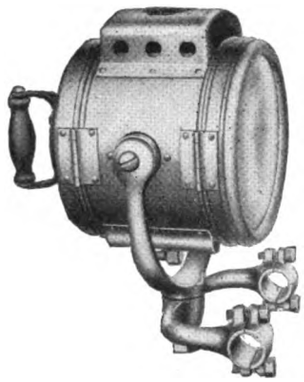


THE PATH-FINDER

The motorcycle lamp that searches the way to safe and joyous riding. Its powerful rays pierce the darkest night and light the road so far ahead of the rider that all strain and worry of night riding are immediately overcome.

You can turn or set it at any angle — enabling you to thoroughly explore any descending grade or curve and to have light for repairs on the rear wheel.

To be equipped with a Pathfinder means all the comfort of daylight. The material and workmanship are the best and we guarantee entire satisfaction.

UNEXCELLED FOR MOTOR BOATS

Pathfinder Lamp Co.

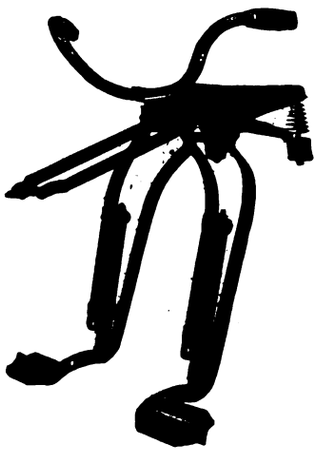
147 North 4th Street
COLUMBUS, OHIO

The Empire Special
SPRING TANDEM

"It Floats"

For appearance, durability and smooth riding this Tandem surpasses anything previously made.

It is equipped with Kelly Adjustable Handle Bars, Troxel Saddle and Rubber Pedals.



"It Floats"

The Handle Bars and Pedals Float with the Saddle, insuring smooth and comfortable riding on the roughest roads.

Springs easily and quickly adjusted to any desired tension.

PATENT PENDING.

It has the greatest range of movement, and lowest saddle position of any spring Tandem on the market.

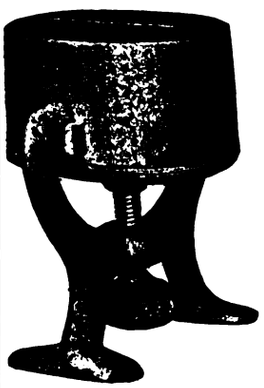
You pick for quality and comfort when you buy a motorcycle. Why not do the same when you buy a tandem?

Fitted to any make of motorcycle . . . Price $25.00

Send for our leaflet.

EMPIRE SPECIALTY COMPANY
Office, 147 The Arcade CLEVELAND, OHIO
CHAS. E. WEAVER, Sales Manager

Make Your Punctured Tubes As Good As New
Vulcanize in Twenty Minutes



Don't insecurely cement your punctured tubes. Vulcanize them with virgin rubber. Makes the repaired portion as good or better than any other part of tube. Get

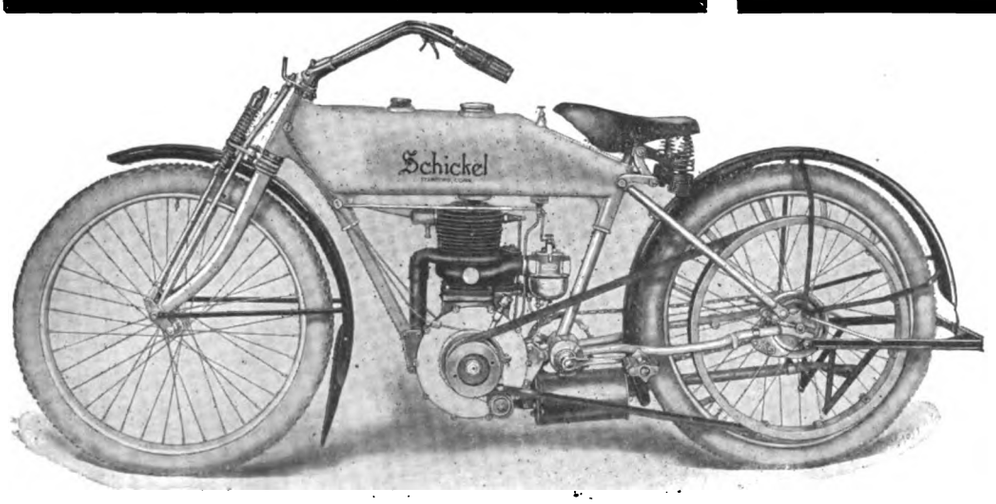
The Clark Vulcanizer

A compact, practical little vulcanizing outfit. easily fits pocket. A supply of pure virgin rubber with every outfit. Absolutely the simplest, lightest, most practical and cheapest device on the market.

PRICE, PREPAID, $1.00

Dealers—here's a "sizzler." Get our proposition.

CLARK VULCANIZER CO.
Columbia Bldg. - COLUMBUS, O.



The Schickel "Big Six"

For hill climbing—beating it over rough roads—threading thru city traffic or performing on the boulevard—this big fellow is matchless.

The powerful valveless motor, sturdy low slung construction, complete handle bar control and noiseless operation makes the Schickel's wonderful all-around performance possible.

Literature describing Schickel chain and belt drive models, in two sizes, sent on request.

Dealers write to-day for our trade proposition.

THE SCHICKEL MOTOR CO.
59 GARDEN STREET STAMFORD, CONN.

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DON'T EXPERIMENT

WHEN IT COMES TO A HORN—DON'T TRIFLE WITH DEATH

BUY A HORN THAT HAS MADE GOOD

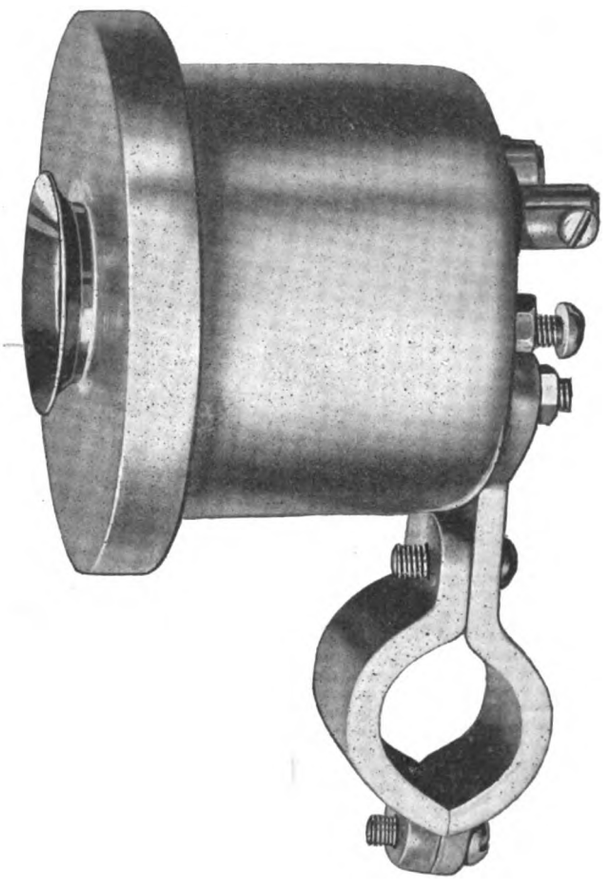
Samson Motorcycle Electric Horn

Loud Strong

Every motorcyclist knows the necessity of a good, loud signal. There is even more need of it on motorcycles than on automobiles. This No. 22 **"Samson Horn"** is a solution of the perplexing problem.

Thousands of these horns have already been sold and in operation for some time. They have proven uniformly satisfactory; and we assure the motorcycle enthusiast that this is an article which is not a toy, but made for practical, every day work.

Nickelplate or Black Enamel Finish



No. 22 Horn Exact Size

Simple Reliable

This horn is extremely simple, consisting of a heavy vibrator with two substantial coils, diaphragm and striking rod, all adjustments locked, metal outside case waterproof, neat and substantial.

We furnish a Push that can be mounted on handlebar or grip and securely attached. Push is made so it projects above case and can be used with gloved hand. Four feet of duplex flexible cordage attached to Push, ready for installation.

New Prices for 1913 Now Out

A BIG FACTORY AND FINANCIAL RESPONSIBILITY BACK OF EVERY "SAMSON" HORN

"Samson" Electric Horns are for sale by all up-to-date dealers and distributors. If any motorcycle owner should find a dealer not selling this horn we will quote direct on receipt of the dealer's name.

DEALERS: WRITE NOW FOR 1913 PRICES

American Electric Co.

MAKERS OF LARGEST LINE ELECTRIC HORNS

State and 64th Sts. Chicago, U.S.A.

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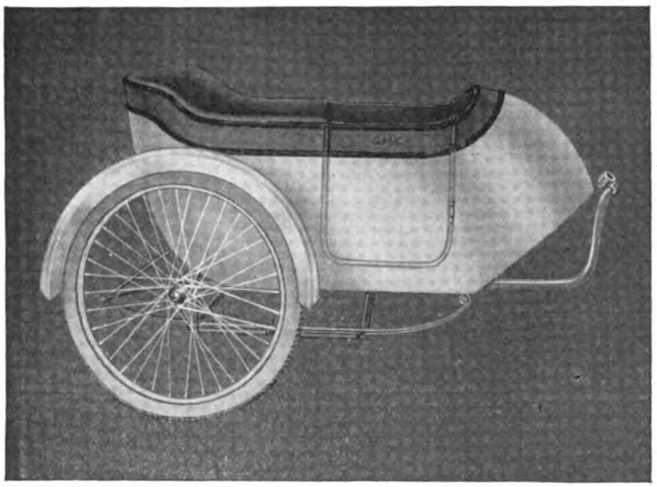


AUTO-CAR MODEL.
A genuine automobile body, sixteen gauge aluminum over clear selected ash, automobile door with lever lock, automobile upholstery and automobile comfort. Will last for years, bran new whenever you have it re-enameled. Interchangeable on same chassis with delivery van shown below.

UNIVERSALS

For business or pleasure. Three models of pleasure cars, one of aluminum and two reed, one model for commercial use.

OUR SPECIALTY

"Auto-car" body and commercial body interchangeable on the one chassis, complete with chassis at a combination price.

REED BODIES,

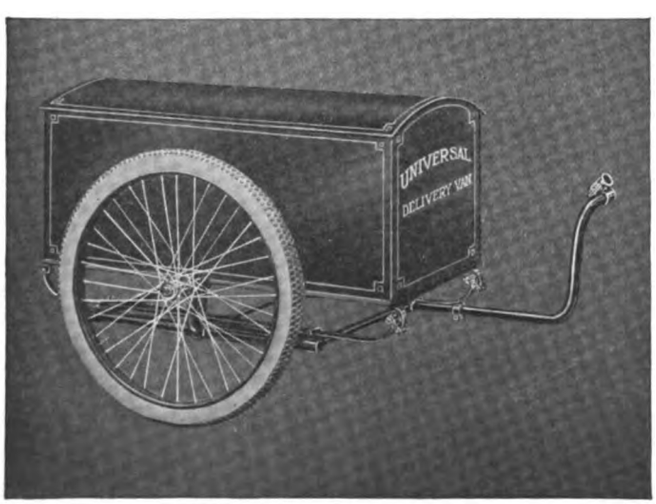
Two models in reed for those who prefer that style. They are made of the finest material and luxuriously upholstered.

JUST OUT: The most interesting and profitable piece of literature you can secure is the new "Universal" booklet and a post card brings it. Send **TODAY.**

GREYHOUND MOTOR CO.

1440 Niagara St. Buffalo, N. Y.

DELIVERY VAN.
A stylish metal and composition body built to stand the wear of years. Three in one, first, a covered van; remove the top and you have an open box truck; remove the body and a substantial platform truck is at your disposal. Interchangeable on same chassis with "Auto-car" body shown above.

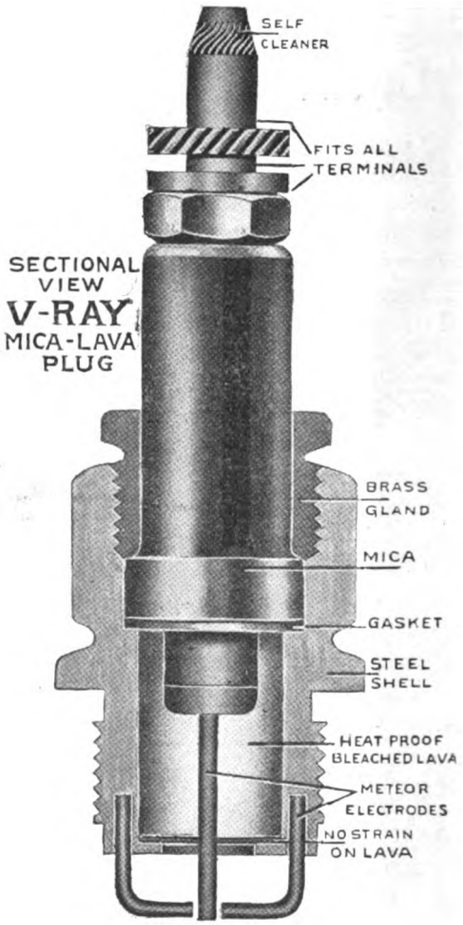


Motorcycle Type.

Neither Mica nor Porcelain Touches Oil or Heat in this, the

Motorcycle Type.

Manufactured by THE V-RAY CO., Marshalltown, Iowa



YOUR JOBBER—YOUR DEALER

MICA-LAVA V-RAY

In justice to your motor look carefully at the sectional view of this great plug. You'll at once decide this plug to be

THE LATEST, GREATEST CONCEPTION OF V-RAY ENGINEERS

ALL JOBBERS. **THE V-RAY CO.** ALL DEALERS.
MARSHALLTOWN, IOWA

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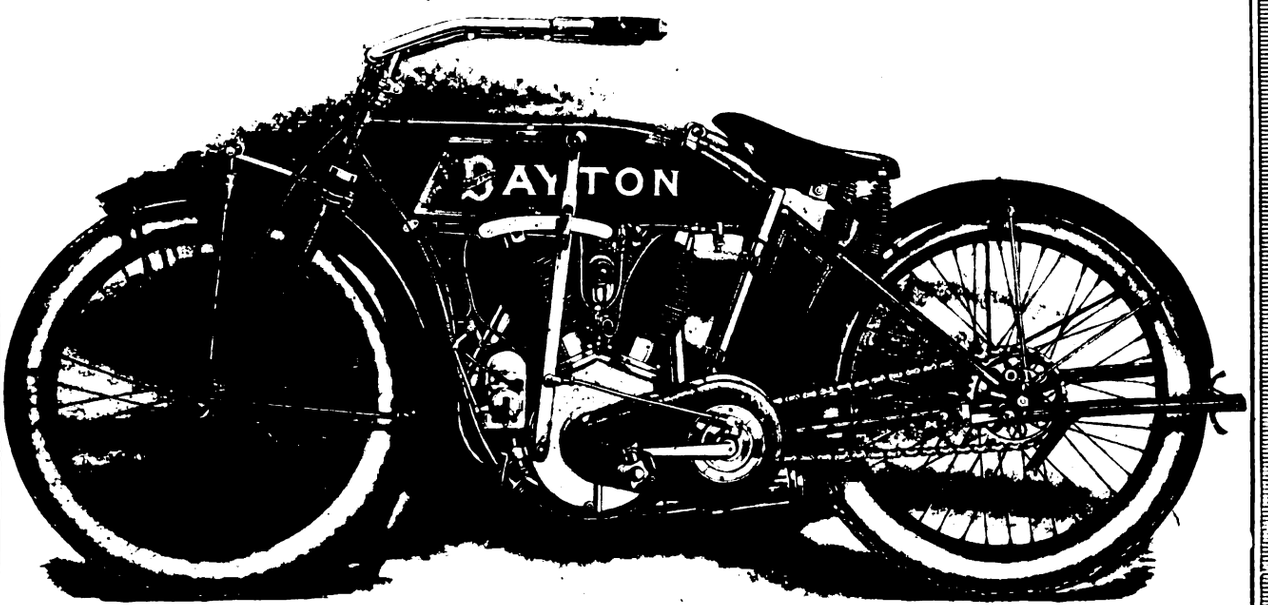
On The Job When Wanted



FREE ENGINE AND CHAIN DRIVE

9 H. P., $275 **7 H. P., $265**

The Dayton motorcycle is a superior motorcycle with unsurpassed equipment.

It has every feature that goes to make up good, sound motorcycle value. Just as important—there is nothing untried or unproved in the entire construction.

When you buy a Dayton motorcycle or when you sell one you know that it will give **real motorcycle service.**

Some good territory is still open for live dealers.

Write today for our booklets.

The Davis Sewing Machine Co.

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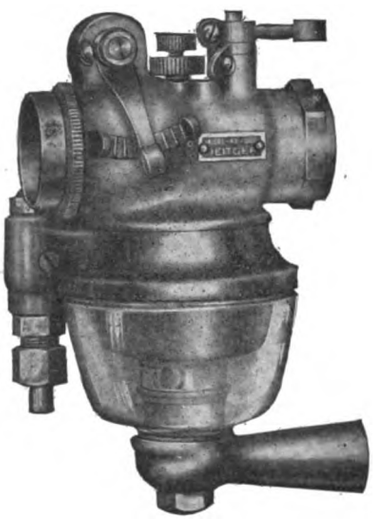
HEITGER MODEL K—1913

Made in ¾" and 1" pipe threads, and special threads for Spacke, Pope, H-D, Excelsior, Merkel, and Emblem, same list, ¾", $10.00; 1", $10.50. Where special fittings are needed, extra price. Has new air valve, no friction, or stems to wear, causing air leakage in low; air adjusted instantly from saddle, for starting, etc. Needs no priming in coldest weather. Furnished with glass or metal bowls, same price, the two being interchangeable.

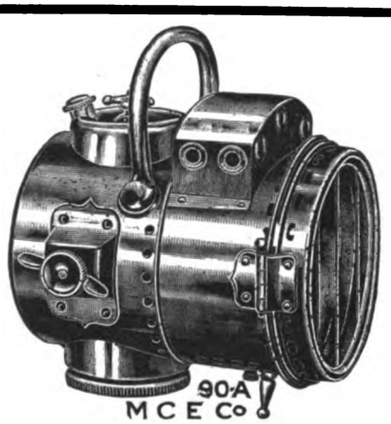


HALF SIZE

Has new gasoline feed, two jets, one for low, one for high, with separate adjustments, giving minimum and maximum speeds. Owing to air valve action, etc., gives greatest possible speed to motor on minimum gasoline consumption. Light in weight, castings of aluminum, polished nickel plate.

Heitger Carbureter Co.

1129 Beecher St., INDIANAPOLIS, IND.

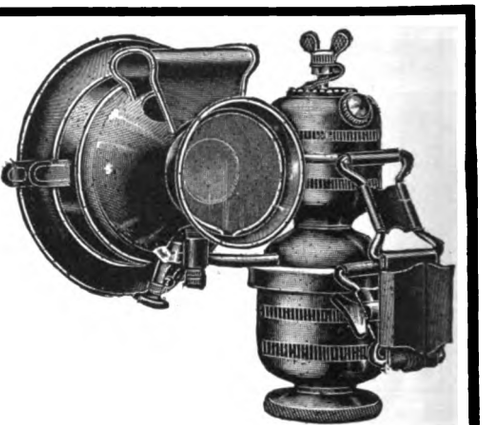


An Ideal Motorcyclist's Lamp. A "Close Coupled" Searchlight and Generator Combined. Weighs 28 ounces; size, 4 x 5 inches. Nickel Plated, Neatly Designed. No. 90 rear prop; No. 90A, side props.

Price $6.00 each

Dealers! Your Attention Please!

Do you realize that our enormous stock of high-grade automobile, motorcycle and bicycle supplies is **entirely** at your disposal? That not one penny's worth is sold to the rider direct? Consider what this means to you. Here are two stunning successes any dealer can handle with amazing results.



Duplex "Self-Lighter" Lamp

The law in most States requires rear lights on bicycles and motorcycles. The combination Duplex MEETS THIS REQUIREMENT. It lights up the road in front of the rider and also shows a RED LIGHT WARNING SIGNAL in the rear. This lamp is finished in nickel, has a flare-front door 4½ inches across and is fitted with a compact generator 2¼ inches in diameter. Height of lamp 5½ inches. This lamp attaches to fork on left side of wheel.

Price $3.00 each

Tear this out →

I am a dealer and want to be placed on your mailing list.

Name .....

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The Motor Car Equipment Co.

55 Warren Street New York, N. Y.

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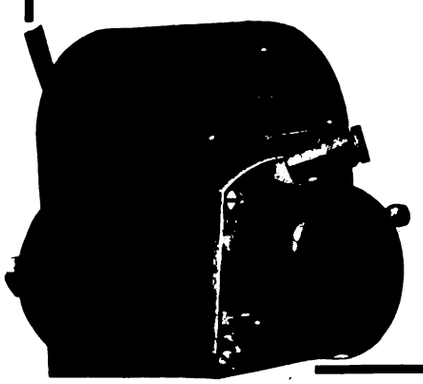
The Berling Magneto

The Berling Magneto gives perfect ignition.

It is water tight—oil and dust proof—delivers a "fat" spark under all conditions of work and weather.

Leading manufacturers are adopting it as part of their regular equipment.

The Berling Magneto adds efficiency to a machine and makes motorcycling a delight.



Ericsson Mfg. Co.

Buffalo, N. Y.

Insist that your motorcycle be equipped with a Berling Magneto.

Made in Dixie Sell Like Sixty

Selling Secrets

that is practically what our 150 ideas on

Cost But Moderately

HALCO HALCO-BRAND LEGGINGS

means to Jobbers and Dealers. With these 150 Legging ideas and prices, incomparable for lowness and range, you can always make legging sales.
BE THE LIVEST DEALER IN YOUR TOWN.
STOCK OUR FAST SELLING LEGGING LINE.

Put a postal on the job. You need our Catalog.

A Pair for Every Pair of Legs

The Hagerstown Legging Company
Franklin St., Hagerstown, Md.

A Price For Every Purse

You'll never realize how much there is to know about a motorcycle until you get a copy of

The Motorcycle Manual

Everything the motorcyclist should know. 25c. a copy—postpaid.

RENOLD CHAIN

Costs the most—yet the least expensive

We're proud of the fact that Renold Chains cost more—because we know every far-sighted rider would rather pay for the difference between Renold Chains and others of inferior quality, just for the assurance of perfect satisfaction which the RENOLD CHAIN affords.

There are no flaws in the RENOLD CHAIN, because every one of the six thousand operations employed in each chain's manufacture is carefully inspected.

Because integrity of manufacture is the keynote of the success of RENOLD CHAINS.

Because our system of inspection absolutely certifies

RENOLD RELIABILITY

We make 90 per cent. of the chains used on foreign motorcycles. But we do not want this to weigh so heavily with you. We want to have you learn **why** the discriminating motorcycle manufacturers and riders in England and other foreign countries choose RENOLD CHAINS.

And as the most convincing argument we can put forth is a demonstration of the chain on YOUR machine, we want to send you a set of RENOLD CHAINS. The true test of quality is service and that is where the

RENOLD CHAIN

excels.

We will send our invaluable booklet, "Hints on Chain Drives for Motorcyclists" to anyone who gives us the name of the dealer in his town.

PETER A. FRASSE & CO.

419 CANAL ST., NEW YORK CITY

BUFFALO PHILADELPHIA

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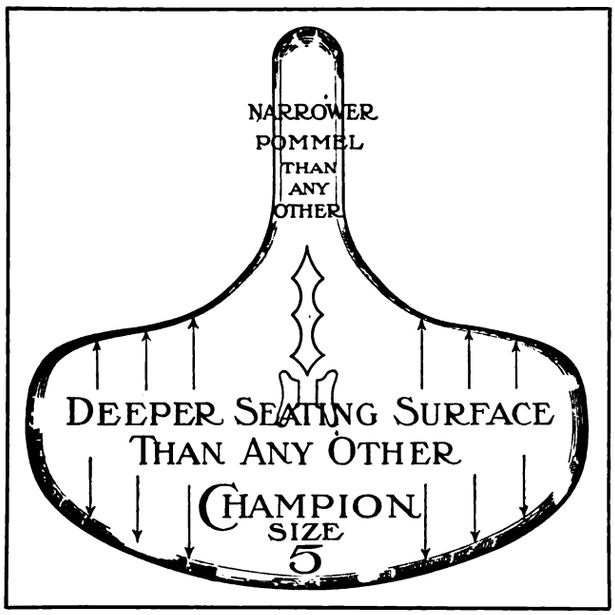
Just Picture the Comfort in the New

PERSONS CHAMPIONS



They are the acme of Quality, of Comfort, of Style and Durability. The front spring is eliminated to insure lowest Saddle position. PATENTED COMPOUND REAR SPRINGS PREVENT VIBRATION AND REBOUND.

COMFORT IS YOURS FOR THE ASKING

Specify PERSONS CHAMPIONS! Supplied without extra cost on the Excelsior, Harley-Davidson, Merkel, Thor, Pope, Reading-Standard, Dayton, Iver-Johnson, Yale, Emblem, A. M. C. and others.

THE PERSONS MANUFACTURING COMPANY

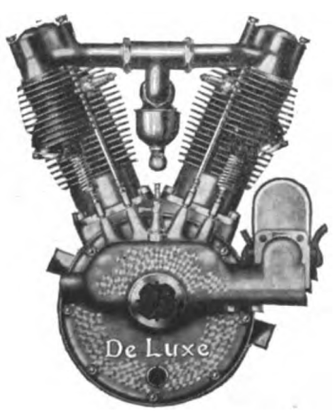
WORCESTER MASS.

"In a Fair Field and no Favor, It's a PERSONS"

DeLuxe MOTORCYCLE MOTORS

A Revolution and a Revelation

in motorcycle motor design. With the many improvements in De Luxe Motors, we have not only overcome the defects in the conventional motor, but we have shown the trade what a good motor should really be.



FOUR SIZES

4 H. P. Single Cylinder — **5 H. P. Single Cylinder**
7 H. P. Twin Cylinder — **9 H. P. Twin Special**

The F. W. Spacke Machine Company

INDIANAPOLIS, IND., U. S. A.

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The following advertisement appeared in the Sacramento, California, papers after receipt March 1st of our first shipment of 7-horse-power twin Jeffersons.

WAVERLEY MFG. CO.,
Jefferson, Wis.

Jefferson

TWIN HAS ARRIVED

The SPEED KING Is Here!

Immediately upon receiving these motors we took one of them out of the crate and timed it for one mile on the Stockton Road. She made the mile under stop-watches in exactly 46 2-5 seconds, or a speed of **78 miles an hour.** This motor was positively just the way it came from the factory and just the way we sell them to our customers. In a few days we are going to tune one of them up for one of the boys who has bought one, and we expect to get at least ten miles an hour more. This motor is the Big Brother of the Little 4-H-P. Single P. E. M., on which **Mr. Cap. Scott,** the owner, has defeated every fast twin, both 7 to 9 horsepower in Sacramento, a remarkable performance for a 4 horsepower single, but nevertheless a positive fact. Of course you don't need the **intoxicating speed** with which these motors are gifted, but you do need that terrible power which they have in the hills. One of the boys who owns a seven h. p. twin of a certain popular make, said after we had given him a ride on a Jefferson: **Honestly, that machine will go over a hill that mine will scarcely make at all, faster than mine will go on a level road.** We have his machine here for sale this morning. (He wants to get a Jefferson.) Come down and look at it, for it is a real bargain in a 1912 7 H. P. motor, capable of making a mile a minute itself.

These machines are guaranteed to develop twelve full horsepower, three more than any other motor on the market.

It has three times as many hand-finished parts as any other machine you can buy and all parts are machined to one one-thousandth part of an inch. They are not made in a large factory and there is not going to be a large amount of them made, but the man who builds them takes a personal interest in every machine, and he builds them with a conscience.

Come down and ask Mr. Hardy Tompkins, the man who rode the machine, how it feels to go 80 miles an hour.

They Are Sold on Easy Payments

GEO. F. BUELL

The Man With The Guarantee

1234 J STREET **SACRAMENTO, CAL.**

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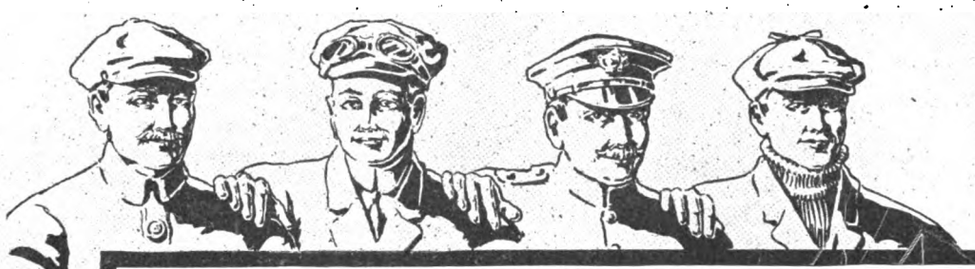
United States Tires



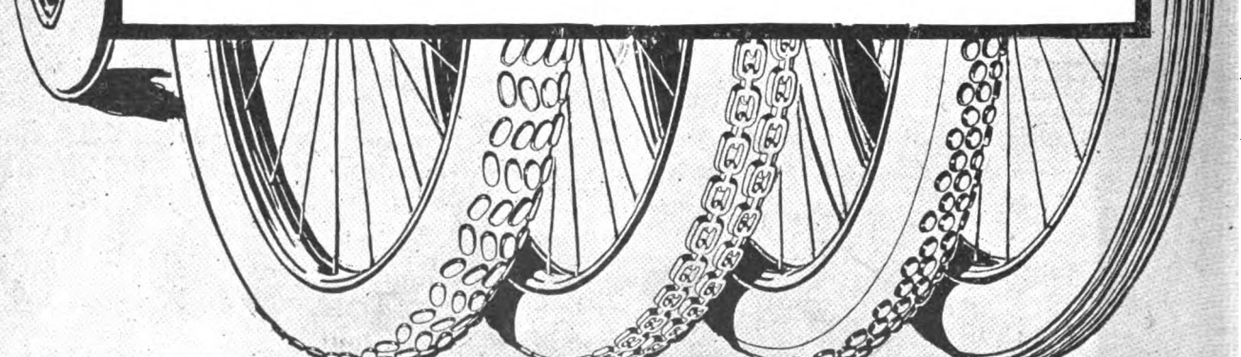
The Tires that have reduced the high cost of touring

By putting all the best features of the two most famous motorcycle tires in the world into one tire, the United States Tire Company has forced down the item of tire expense to the lowest point ever reached by any tire maker.

The rider who uses United States Tires for this season's riding will actually get from 25 to 50% more mileage out of his tires than he possibly could out of any tire two years ago, before the formation of the United States Tire Company.

Why not have your machine equipped with United States Tires now and get full advantage of this saving in tire expense.

Cost no more than you are asked to pay for other kinds.



United States Tire Company-New York

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MOTORCYCLE ILLUSTRATED

51 CHAMBERS STREET
NEW YORK CITY

THURSDAY, MARCH 20, 1913

TEN CENTS A COPY
ONE DOLLAR A YEAR

CALIFORNIANS WELCOME F.A.M. LECTURER

HAVING sprinkled organization and boom meetings as liberally as possible among motorcyclists along his trail through the Southwest, Director J. Leo Sauer, of the F. A., M., has arrived in southern California on his round-the-country lecture trip. As is generally known, the only friction worthy of the name between clubs and the national body has been developed in California, and it was here that the Federation traveler expected to find his work cut out for him. To a great extent his expectations were realized, but it is worthy of note that he found motorcyclists in general ready to hear his arguments and to give reasonable consideration to the proposals of the F. A. M. He was given a warm welcome on his arrival in Los Angeles, despite the stand-pat attitude of the leaders opposed to the F. A. M., and at the first meeting of importance, held at Venice, near Los Angeles, there was a large attendance.

This meeting was featured by a debate between Director Sauer and George F. Douglass, the latter representing the element on the Pacific coast that is antagonistic to the F. A. M. In his explanation of the causes that led to the present dissatisfaction, Mr. Douglass dwelt on the claim that the Federation had not shown definite results in California; that promises had been made without being fulfilled, and that the motorcyclists on the coast had arrived at the conclusion that they were being overlooked.

WHY STATE ACTIVITY IS NEEDED IN F. A. M.

In reply to these arguments Director Sauer stated that the riders could not afford to take a narrow view of the situation, and that even casual inquiries would show the F. A. M. to be making progress along practical lines. He said that while the Federation was being so severely criticised on the Pacific coast it had actually under way legal action cases in New York, New Jersey, Indiana, Ohio, Virginia and California. He explained that these cases had been taken up at the request of clubs or State officials, and that they would be fought to the last trench in order to protect the interests of motorcyclists and establish satisfactory precedents. He further called attention to the fact that immediately upon his arrival in Los Angeles he had appointed Lawyer I. B. Potter to represent the National Legal Action Committee of the F. A. M. on

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the coast. Mr. Sauer stated that he had instructed Lawyer Potter to give special attention to the motor vehicle legislation now pending in California, and to leave no stone unturned to insure a proper regard for the rights of motorcycle owners.

Referring to the criticism that the coast territory was not properly represented, Director Sauer explained that under the F. A. M. constitution and by-laws each State is privileged to organize its own government, elect its officials and referee and handle its racing affairs, just as any State in the national government is privileged to dispose of matters that concern its particular territory or interests. He stated that failure on the part of the riders to form their State organization was responsible for much of the dissatisfaction now being expressed by California motorcyclists.

ONLY ONE FEDERATION NEEDED.

Continuing along this line Mr. Sauer asked for co-operation with the various departments of the F. A. M., and referred to the recently established Touring Bureau. He declared that if each F. A. M. rider would make it a point to send in details of one tour a year the country would soon be fully covered. He concluded by requesting Mr. Douglass to offer a proposition to the F. A. M., and the former advanced the opinion that nothing short of a separate organization would satisfy the riders. To this Director Sauer replied that two organizations intended to govern motorcycle affairs could not exist in one country, however big the country might be. He denied that there was justification for the remark that the F. A. M. was an eastern organization, and pointed to the fact that some of the strongest boosters of the organization are westerners; that Denver is being most seriously considered as the scene of the next national assembly, and that there can be no East or West in a body which is working for the advancement of a sport and its devotees.

The F. A. M. official stated that not until recently have Federation funds been available to give the riders practical benefits, and that considerable money is now being devoted to the development of the Touring Bureau and to legal action work. He made it clear that no section of the country is to be favored, and stated further that arrangements are under way—and have been for some time past—to give systematic attention to touring conditions on the Pacific coast and in the Middle West.

PRESENT BENEFITS OF F. A. M.

F. A. M. benefits already directly or indirectly available were pointed out as favorable publicity for the motorcycle; registered repair shops; rewards for the recovery of stolen machines; accident fund for racing men; excellent set of competition rules; a well-developed national organization; a broad legal action policy and the Touring Bureau. Mr. Sauer said that proper activity on the part of State organizations would insure satisfactory distribution of these benefits. Questions were asked and answered by both speakers. The meeting was held under the auspices of the Los Angeles M. C., with President Bissett in the chair.

Leo Owens, of Pasadena, has succeeded R. Y. Leslie, who recently resigned the State commissionership, and Percy Howers has been named as the new local referee in Los Angeles. Both Owens and Howers are hard workers and popular.

PANTHER CITY CLUB IN LINE

FT. WORTH, Tex., March 10.—At a meeting held here Sunday afternoon the Panther City M. C. was reorganized and affiliated with the F. A. M. with a paid-in membership of twenty. As many more are assured, and J. A. Massie, an active local worker for the F. A. M. was elected temporary president of the club. There are about 175 motorcyclists in this city, the dealers are working harmoniously for the advancement of the trade and the sport and it was with enthusiasm that the local riders learned of the intention of Director J. Leo Sauer, of the F. A. M., to visit Ft. Worth on his journey westward. The Federation traveler expressed the opinion that Ft. Worth and vicinity should produce a fine crop of motorcycle enthusiasts during the coming summer and the dealers assured him that they would leave nothing undone to back up his good impression of the city.

Our Dallas correspondent writes as follows:

"As a result of the favorable impression created throughout this district by Director Sauer, of the F. A. M., positive assurances are given that an affiliated club of Dallas motorcyclists will be formed in the very near future. This city has had several clubs, one of them affiliated with the Federation, but none having the support of all the dealers and various differences of opinion have prevented riders and dealers from getting together for a long, strong pull.

"The conditions were not improved when Chairman Thornley of the F. A. M. Competition Committee, appointed his referee here. Two men were equally recommended and both were capable of handling the work. When one was appointed the supporters of the other felt that a mistake had been made. The riders are now coming to the conclusion, however, that the competition chairman acted without bias and that his attitude toward all the motorcyclists of the district, regardless of factions, is one of fairness."

F. A. M. "KNOCKS OUT" ALBANY BILLS

Prompt Work by Legal Action Committee and Riders Convinces New York State Lawmakers That There is no Need for Additional Motorcycle Regulations at This Time.

AS a result of the prompt action taken by the F. A. M., through Alexander Schwalbach, who is acting for the National Committee on Legal Action, the proposed motor law amendments which were designed to impose a tax on New York State motorcyclists have been satisfactorily disposed of, and there will be no new regulations applying to owners of motor two-wheelers in this state. At a hearing held in the Assembly chamber at Albany on Thursday, March 13, the bills were threshed out by legal counsel for the automobilists of the state and by an attorney representing the F. A. M. The hearing was attended by hundreds of motor car owners and dealers and a strong delegation of motorcyclists. Before, during and after the hearing Mr. Schwalbach was in conference with the lawmakers, and he was given positive assurances that the bills affecting motorcyclists would not be reported by the committee to which they were referred.

In other words, the proposed amendments, at least insofar as they have a bearing on motorcycles, will rest peacefully in the hands of the committee. The hearing was, strictly speaking, a matter of form, for the lawmakers had been convinced that there was no justification for new motorcycle regulations at this time, even before the arguments of the State motorcyclists were formally presented. This highly satisfactory state of affairs resulted from the rapid-fire canvass of the senators and assemblymen by Mr. Schwalbach and his cohorts throughout the state.. No less than 1,500 postcards were circulated by the F. A. M. in the state, asking riders to state their objections to the contemplated amendments and to request the aid of the legislators to defeat them. Many assemblymen expressed surprise at the magnitude of the movement started in opposition to the bills by the motorcyclists, and advanced the opinion that the state could ill afford to work against the interests of such a body of riders.

Mr. Schwalbach had a personal conference with Governor Sulzer relative to the bills, but as the state executive had not found time to read the proposed amendments, he could not state his policy with reference to them. He intimated, however, that he believed the new measures would be disposed of to the satisfaction of motorcyclists. When it is realized that no less than 3,000 bills have been printed for the consideration of the lawmakers during the present term, it will be easy to understand why the motor law amendments had not reached the eyes of the Governor—or the eyes of most of the senators and assemblymen, for that matter.

One of the leaders among the assemblymen stated in conversation with Mr. Schwalbach that in his opinion the state will not be in a position to draft ironclad regulations taxing motorcyclists for many years to come. However, the policy of the F. A. M. in New York State, as elsewhere, is to be one of untiring vigilance. Every precaution has been taken to guard against unfavorable action on any measure affecting motorcyclists before the latter have been given an opportunity to state their case. This will apply to the present bills, until they have been positively put out of the running, and to all other measures that may be submitted with a view to hedging the owners of motor two-wheelers with objectionable regulations.

BALTIMORE'S NEW FIRM

HAVING obtained an option on a four-and-a-half-acre plot of land in South Baltimore, Md., the Dreadnaught Tire and Rubber Company, recently incorporated under the laws of Delaware, with a capital of $1,000,000, will erect a factory for the manufacture of various rubber products. It is stated that 400 men will be employed, fifty of whom will be brought from Akron. The officers of the company are: A. F. Gilbert, president; Wilmer Dunbar, vice-president and general manager; Walter E. Hill, secretary, and C. P. Triplett, treasurer. R. H. Diggs, Walter B. Swindell, A. B. Whitlock, Albert W. Adt, and H. E. Whitlock, together with the officers compose the board of directors. It is stated that construction work will be started at once.

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LARGE TIRES AND THE SIDE-SLIP PROBLEM

Veteran Roadster Favors Three-inch Tires for Muddy Traveling and Gives Some Advice Anent Balancing.

A PARAGRAPH which appeared in these columns recently to the effect that an experienced motorcyclist blamed 3-inch tires for increasing the tendency of a machine to side-slip has aroused considerable interest, and a number of riders have rushed to the defense of the large tire, claiming that in general the results obtained from it are directly opposite those mentioned in the original item. The defenders of the 3-inch tire state that there is an appreciable improvement over the 2½-inch casing in reference to side-slipping, and they attribute this, naturally enough, to the fact that the non-skid tread of a 3-inch tire grips more of the road surface than a similar tread on the narrower tire.

It has been suggested that the writer of the original paragraph used his rear tire without sufficient air, and that when it flattened under the load it presented a relatively broad surface which would have a greater tendency to "float" in soft mud than a narrower tire at the same degree of inflation. In other words, it is necessary to keep the large tire quite hard in order to benefit by its advantages over the narrower casing. That tires should always be inflated to the point where they will not flatten noticeably under the load is generally understood, but few motorcyclists observe this rule systematically.

When the theory that a 3-inch tire is conducive to side-slipping was presented to a well-known racer and endurance rider he greeted it with a broad smile.

"Don't believe it," he admonished, "for I have proved to my entire satisfaction in heavy road work that the 3-inch tire has marked advantages over the narrower casing, aside from its additional strength and durability. In past seasons I have had considerable trouble from side-slipping in slush and soft mud on winter and early spring trips, but during the last two months I have used a 3-inch rear tire and find that the tendency to side-slip is almost entirely overcome. I may say, however, that a soft tire—no matter how broad it may be—will not give satisfactory results in mud-larking. The tire must be hard enough so that its studs, or corrugations can "bite" through the slime and "grease" of the road and find a comparatively solid surface on which to obtain traction."

The same rider referred to the fact that chronic side-slipping is often caused, or aggravated, by an improperly balanced mount. He admitted that the standard high-grade motorcycle usually has the weight well distributed when it leaves the factory, but, he argued that the manufacturer's calculations are sometimes completely upset when the rider adds special attachments or changes his handlebars or the position of his saddle. To minimize side-slipping the saddle should be well forward in order to distribute the rider's weight as fairly as possible between the two wheels, and the handlebars should be quite broad and of such length that the rider will lean slightly forward. A gas tank, heavy tool-box or similar attachment should not be carried any higher on the frame than is absolutely necessary, and the custom of attaching a tool-bag to one of the handlebars is particularly frowned upon. Care should be taken to see that the wheels "track," and that there is no lost motion in the steering head.

"The inexperienced rider may consider some of my suggestions rather unimportant," continued the veteran roadster, "but I can assure him that no balancing detail, however trivial, can be overlooked if side-slipping is to be reduced to the minimum. I have practically cured a chronic side-slipper by changing the length of the handlebars, getting the wheels in track, shedding a cumbersome tool-box from the top of the tank and shifting the saddle a bit to the front. All side-slipping is not to be charged against the tires, by any means."

IT is stated in recent reports from California that there are now 55,000 motorcycles in use throughout the state, thus making it the banner motorcycle state of the Union.

IN the striking photograph reproduced above an English rider is shown getting into difficulty on a sharp turn littered with loose stones. The picture was taken during the recent Mid-Warwickshire reliability trial, which imposed a number of hairpin turns and baffling ascents in a downpour of rain. There were 180 starters in the trial, including three women enthusiasts.

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FROM PITTSBURG TO ALBUQUERQUE

by C. E. PARKER

BEING dissatisfied with climatic conditions in Pennsylvania and having been considerably impressed by accounts of the inducements held out by southern Pacific coast cities, I decided some time ago to make my way westward and it seemed only natural that I should choose my motorcycle as a means of locomotion. For years past I have been an ardent advocate of the single-tracker, and I welcomed an opportunity to enjoy a long tour through interesting territory and at the same time to carry out my plans for a change of climate.

At the time of which I write I was living in a coal-mining town in Pennsylvania. I wrote to several motorcycle journals and had no trouble in getting in touch with riders from various parts of the country. I chose for a partner a young man from Pittsburgh, and we decided to leave for the coast as soon as possible.

It being agreed upon that we would, as far as possible, camp out at night, I included in my equipment a good woolen blanket and a large piece of oilcloth. Before starting I attached a cyclometer to my machine, but the rough roads soon broke the brackets that held it in place. In making such a tour as this one should have a good speedometer; this not only provides for the keeping of an accurate record of speed and total mileage, but it is really necessary when traveling in the sparsely settled districts of the Far West. Here one may travel for hours without meeting anyone, and, of course, it is impossible to ask for directions. An ordinary luggage carrier was attached to my machine, to which I added a strong cottonwood board and then secured my suitcase to it. I carried a new inner tube and a good assortment of small parts.

THE START FROM WASHINGTON.

For some time prior to the date set for our start there was almost continuous rain in our district. We had arranged to meet in Washington, Pa., for the real start, and on the way to this point I encountered considerable rain, had some trouble with my clutch and got a bad puncture. Pretty interesting for a start, eh? Part of my route to Washington was over the Old National Road, some of which offered good going. I stopped the first night at Brownsville, which is a quaint old town. In the morning it took a great deal of kicking on the door before I managed to arouse the garage keeper. After passing through Beallsville I reached Washington and found that my partner had not arrived. I spent the afternoon riding around the town and shortly after supper "Bill," my companion, made his appearance.

We went to bed early and the next forenoon we worked on Bill's machine, as he had run through an open bridge culvert and twisted the front fork badly. It was nearly noon when we finally left Washington, and the weather was fair. The country becomes hilly immediately and the rider in this section need not fear monotony. We passed through Caysville and West Alexandria to Elm Grove. Here we stopped to inspect my rear tire which had gone flat. After going through the usual procedure to find a puncture—which we couldn't locate—we discovered that the valve was leaking. By the time we were ready to start again my motor balked and all my efforts to get it started were unavailing. Then Bill tried it and met with success the first time. Later on in the day I found that my magneto cut-out was grounding the magneto circuit.

ENGINE TROUBLE AND A PUNCTURE.

After leaving Elm Grove we rode down in the valley and soon reached Wheeling, where we stopped long enough to get a supply of gasoline. So far the roads we had traversed were from fair to good, with some very long and steep hills. We crossed the Ohio River over a toll bridge, paying five cents. This brought us to Bridgeport. While riding through the town I noticed all the people were looking upward and, of course, I did the same and saw a fine flight of an aeroplane. I waited a while but as my partner did not show up I started back to find him. I had not gone far when my motor stopped. It halted in front of the home of an electrician, who came out and after experimenting a little we decided to disconnect the magneto cut-out. After doing this the engine started all right.

On going back to the city I found that Bill had picked up three nails in one of his tires and he was forced to use a new tube. The punctures were in the rear wheel so we had to remove the wheel, brake and chains. We were soon under way again, and after leaving Bridgeport we rode up the Wheeling Mountain. This road is very steep and there are many sharp curves. We arrived at St. Clairsville at nightfall, where we ate supper and then

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made our way slowly out of town for our first night's camping. We were up early the next morning and proceeded to Morristown over good roads. We made a stop here for breakfast, but as we were rather late there was an extra charge. Leaving here we continued over fair roads through Fairview, Washington and Cambridge. There are many hills in this section, on which are numerous water breakers and one has to use caution to avoid being thrown.

GOOD PROGRESS OVER FAIR ROADS.

Many stone bridges are seen along this Old National Road. Before reaching Zanesville we passed through New Concord and Bridgeville. After dinner, which we had at Zanesville, we were advised by an acquaintance to go to Columbus by way of Lancaster and Fultonham, and we acted upon his instructions. This was an improvement over the Old National Road and we had good gravel and macadam roads to Columbus, where we arrived at nightfall. Both being without lights we were at loss as to how we should enter the city, as we feared being halted by the police. However, an automobilist came to our rescue by offering us the protection of his lights. To this point the trip had been very enjoyable and the roads generally good.

We got under way at 9 a. m., and went over a fine boulevard toward Springfield. The first 17 miles afforded excellent going, but after that the macadam was rutty and dusty. We were now riding the National Road which runs straight for about 50 miles, although the rolling nature of the country gives it a rugged appearance. We stopped at Brighton, having passed through Alton and Lafayette, which place we reached in time for dinner. The road leading to this point was in fearful condition. That afternoon we passed through Donnellsville, Brandt, Vandalia, Arlington, Lewisburgh and Gettysburg to Richmond, Ind. This country is marked by large corn and tobacco fields and is of a rolling nature. We slept that night at the college grounds in Richmond. In the morning we bought a bottle of kerosene oil. This we used daily in the cylinders and found it to be very beneficial.

A CLOSE CALL FOR BILL.

We rode on to Pennville for breakfast, but as the restaurant keeper was not up when we arrived, we made some adjustments on my rear cylinder which had not been firing regularly. We found that the nut joining the inlet pipe and valve dome was broken which caused a leak, thereby weakening the explosive mixture. The application of some friction tape wound tightly around the break effectually checked the leak. After leaving here we had some bad going. Just outside of the town the roads were being repaired and we were forced to go into the ditch. This was followed by miles of loose gravel, dumped on the road, and we took several spills in trying to turn out for automobiles and teams. Our route to Cleveland was through Cambridge City, Lewisville, Ogden and Knightstown. It was raining when we reached the Mile High City and we sought shelter in a barn. The storm did not last long, and as the gravel roads dried quickly we had no trouble in reaching Greenfield, where it had not rained. The roads to Cumberland and Indianapolis were better than we found earlier in the day.

As a rule it is confusing to find one's way into and out of a large city, but we had no trouble in locating a motorcycle store in Indianapolis, and on leaving a guide from the shop escorted us out. We had to cross a number of railroad tracks just outside of the city and in going over one my partner took a spill. For an instant I thought he would be killed as a fast freight train was almost upon him, but a flagman managed to drag him and his machine out of the way just in time. He was not injured and a broken pedal pin was the only damage to the machine. By the time we were able to start it was dark and we had ridden only a short distance when my mount skidded out from under me. We then decided to camp out for the night.

In the morning, while we were eating breakfast a couple of motorcycle racers, riding from Terre Haute to Indianapolis passed by. Later on we met another motorcyclist who gave us directions how to avoid some bad sand. However, I made the wrong detour and turned back just in time to get the worst of the sand. Plenty of sand was encountered at Belleview and Mt. Meridian. We met a number of riders near Rullsville and Manhattan. We had dinner at Brazil, after which we continued on through Seeleyville to Terre Haute.

(To be continued.)

SLIDE-VALVE MOTORCYCLE MOTOR

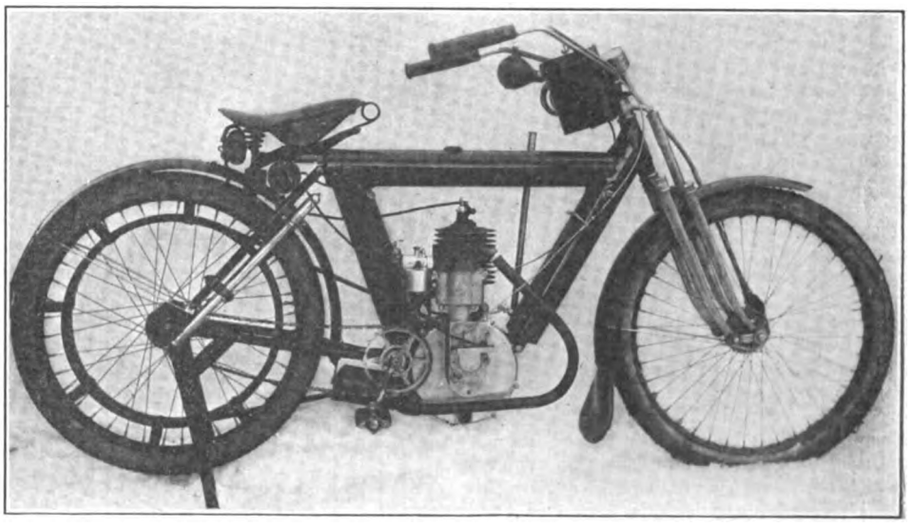
New Yorker Perfects Unique Power Plant and Proves Its Advantages in Practical Trials Covering Two Years.

WHAT is probably the first successfully used slide-valve motorcycle motor is that designed by A. E. Osborne, of 2058 Valentine avenue, New York City, the present form of which is illustrated here. The original motor was brought out in January, 1911, and is still running, mounted in a tank-frame machine.

As part of the cylinder casting there is a smaller cylinder formed at the right side and within this cylinder operates a piston valve which is reciprocated by a small crankshaft and connecting-rod. The crankshaft is driven at one-half the motor speed and the valve serves to open and close the inlet and exhaust ports at the proper intervals. There is also a small V-section ring (shown black in the motor section) fitted in the inlet passage whose duty it is to prevent the expanding gases entering the inlet pipe just before the exhaust port is opened. This ring floats with a limited movement in the little chamber until seated by the expanded gases and is insulated from the burning charges by the piston valve during the firing stroke. It is cooled also by the new charges passing over it. The inlet passage is that nearest the combustion chamber and its opening to the cylindrical passage in which the piston valve works is controlled by the V-ring previously mentioned. The exhaust passage is the lower one and is annular, while the inlet passage to the valve cylinder is a combination of annular and ports, the latter establishing communication between the little chamber and the small cylinder in a most satisfactory manner.

The operation is as follows: With the motor piston at the top of its stroke and the charge compressed, the firing of the charge would force the piston down and the piston valve, being driven by the timing gear, will travel downward successively uncovering the inlet and the exhaust ports. As the inlet port is exposed, the V-ring covers it until the gases escape through the exhaust port. As the main piston performs the exhaust stroke the exhaust port still remains open but as the main piston commences the inlet stroke, the piston valve ascends, closing the exhaust port and exposing the inlet port. The suction lifts the V-ring and the charge is admitted. As the motor gets on compression stroke, the piston valve rises to its top position, cutting off communication with both ports. The movements are timed so as to occur properly whether the motor is running at 250 or 2,500 revolutions, a feature which is not the case with other slide-valve designs which cannot be run slowly with any certainty of operation.

Lubrication is well provided for. The valve piston is formed with oil grooves on its lower two-thirds and gas-tightness is secured by two packing rings on the upper part. There is a connection to the valve cylinder near the bottom for an oil lead and oil is thus sent past the piston valve to the main piston.



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HOW TO BUILD A MOTORCYCLE GARAGE

BY CARL · L · WEIL

HAVING learned that one of the chief problems confronting me as a motorcyclist concerned the housing of my machine, and that many of my friends among the riders are about in the same position, I set to work recently to design a satisfactory motorcycle garage that could be erected at a small outlay, and I believe that the plans which accompany this article will be found to meet all requirements. Being a rider, I have kept in mind the special needs of the motorcyclist without ever losing sight of the fact that economy in construction was a big factor, and it will be noted that the total expenditure as required in my specifications is $15.04. I do not believe a rider can lower this figure materially and still obtain the results he desires, and on the other hand I do not see why it should be necessary to increase it.

Hundreds of riders keep their machines in barns that at best are insecure and leaky, much to their depreciation (and sometimes resulting in their theft by night prowlers), and it strikes me that with the approach of Spring there will be a widespread demand for just such a building as I have planned. It will be found from study of the plans that the dimensions are such as to minimize waste in cutting by making the sizes conform to standard lumber stock. In the following paragraphs I give some alternative details and also outline the methods to be followed in keeping the total cost down to the figure I mention.

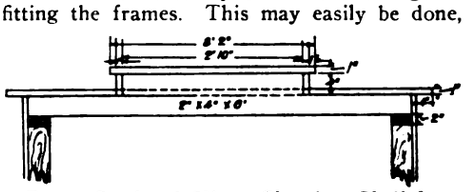
SOME SPECIFICATIONS IN DETAIL.

If a wooden floor is to be used it will be necessary to have a foundation of gravel or cinders, six inches deep and of a ground area slightly larger than the garage. This foundation will bring the floor about one foot higher than the original ground surface, and as a result it will be necessary to have an inclined runway of cinders, concrete or wood to permit of getting the machine in and out of the building easily. By raising the floor one foot above the ground proper the machine owner will guard against flooding of his garage in wet weather and will reduce to the minimum the danger of a damp floor which, naturally, would not do his mount any good. Some riders may prefer a concrete floor and for these I would suggest a mixture of three bags of cement to fifteen bags of gravel. This mixture will give the desired results and will prove quite economical.

The mud-sill is made up of 2 x 4 in. material, laid on the 4 in. side, and the stringers to which the flooring is nailed will rest on this sill. The studding, which is 2 x 4 in., and of the lengths shown in the plans, is fastened on top by pieces laid on the 4 in. side. On the studding is then placed the rafters which carry the roofing. The section B-B also shows a pitch to the roof of half a foot, the front being 7 ft. high and the rear 6 ft. 6 ins. This is sufficient to prevent rainwater and snow from settling and remaining long enough on the roof to leak through.

PROVIDING FOR LIGHT.

The skylight and a single window can be procured from a dealer in second-hand building material at a very reasonable price. If they are bought made up it is not likely that they will be of the sizes shown on the plans, and it will then be necessary to make a change in fitting the frames. This may easily be done,



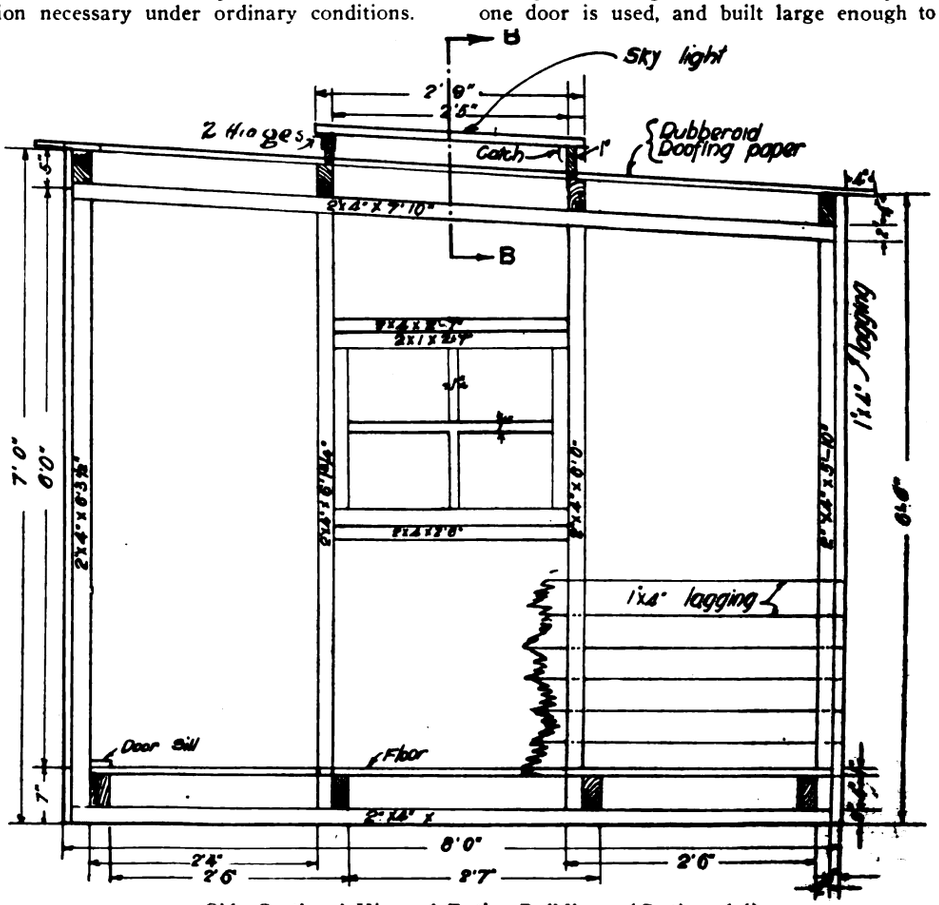
Front Sectional View, Showing Skylight.

however, and the frame accommodated to the sash of the window and skylight, whatever size they may be. The window is to be framed in, at a height above the floor that will permit of placing a workbench under it. No provision is made for opening it, since the door will be found to provide all the ventilation necessary under ordinary conditions.

Section C-C gives a longitudinal view of the skylight and a transverse section of the upper part of the garage. It should be noted that the vent runs lengthwise across the main portion. If section C-C is studied in conjunction with section B-B the rider will obtain a clearer working knowledge of the plan. The hinges of the skylight are 2-inch ones, placed outside. On the other side is a hook and screw-eye for fastening the vent down. If it is found desirable to raise the skylight for additional ventilation a piece of board, say ⅞-in. thick by three or four inches wide, may be hinged to the loose edge of the skylight frame, and holes may be bored at intervals in the board to permit of adjusting it at varying heights. In this way it will be a simple matter to push this board upward and open the skylight to any desired distance.

ADDITIONAL POINTERS.

The construction of the door should give the builder no trouble. The diagram tells its own story. It will be seen that double doors are used instead of a single wide door. There are several reasons for this construction, chief among them being handiness and stability. If one door is used, and built large enough to



Side Sectional View of Entire Building. (Section AA).

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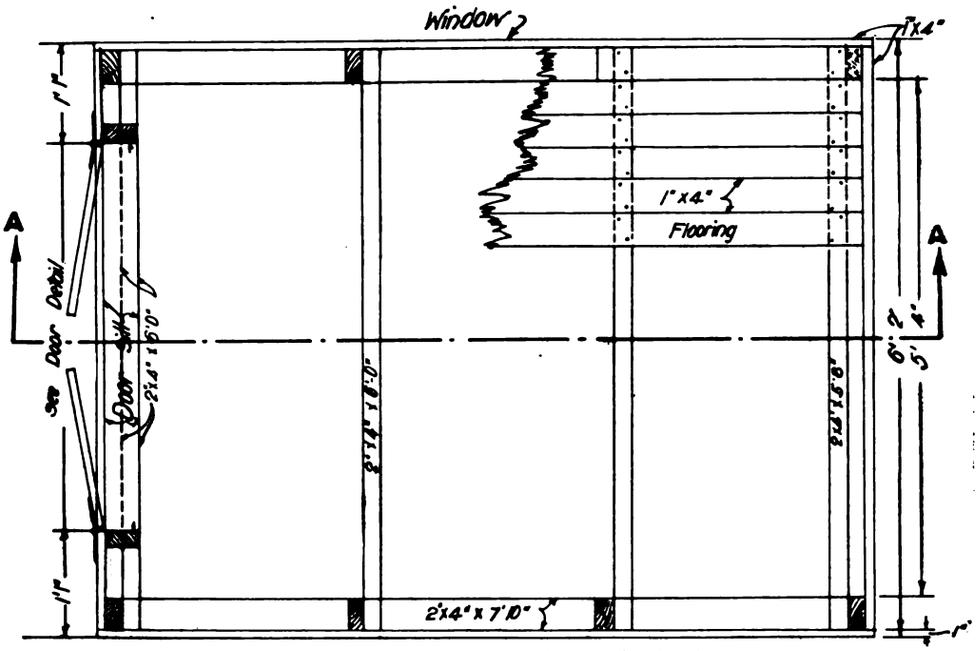
permit of the passage of a motorcycle with the utmost comfort for the person handling it, the door will be quite heavy and sooner or later it will sag and cause trouble. Double doors cost very little more, are twice as handy and will never bother the owner. Besides, with double doors it is possible to give the building a more presentable front.

The dotted lines in the door diagram show the inside braces. Four 6-inch strap hinges are used and placed outside, this method permitting the doors to be swung outward. The lock may be left to the choice of the individual rider; an ordinary hasp and staple with a good padlock will usually meet the requirements. Some time ago I saw a locking system of this character that had a feature of special interest to motorcyclists, but unfortunately I neglected to learn whether it was being manufactured for general use. In the system I refer to the hasp was hinged at the end containing the screws and it then doubled back over itself so that when the lock was in position all the screws were covered. It is obvious that a thief would find it difficult to remove such a hasp, and that the locking system would have to be pried from the building entire before the door could be opened.



Floor Plan, Showing the Frame in Section.

MAKING THE ROOF SECURE.

The roof is made up of 1-inch boards, covered with roofing paper. The paper should be carried well up on the sides of the skylight frame to insure a watertight job. Wide boards are to be used on the sides of the roof so that a suitable overhang may be obtained. Shingles may be used if desired, in which case it will be necessary to place the rafters longitudinally and then nail on shingle lath to receive the shingles.

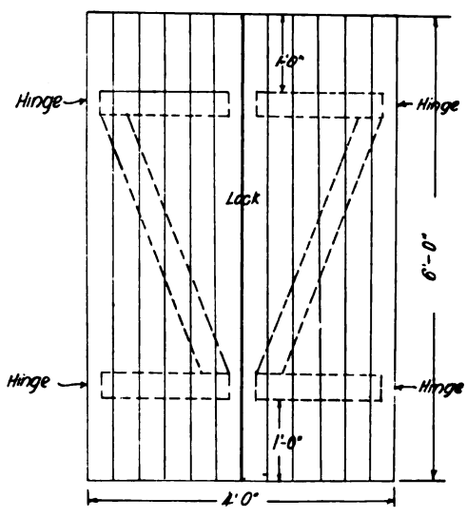
Pine, of the common grade, tongued and grooved, may be used for the siding, roof and floor. Hemlock or "short leaf" yellow pine is suitable for the 2 x 4-inch material, and 8d., 10d. and 12d. wire nails will be found to meet all the requirements of the builder. The rider who desires a concrete floor in his garage will find that cement costs about two dollars a barrel, there being four bags to the barrel.

In preparing the following schedule of prices I have not adhered to rates in any one section of the country, but have obtained prices from wholesalers in widely separated districts, so that I believe the builder will find that my table strikes a fair average, no matter where he may be located.

SCHEDULE OF PRICES.

I have prepared my expense schedule as follows: Sides of garage, 6¾ x 8 feet—108 board feet; front, 6 x 7 feet—42 board feet; rear, 6 feet 6 inches by 8 feet 8 inches—56 board feet; floor, 6 feet x 8 feet—48 board feet; total, 193 board feet. I add to this for shelves and waste 24 feet of material, so that I have a final total of 217 feet. At the rate of $30 per thousand feet it will be seen that the outlay is $6.51. Sixteen pieces of studding will be needed, 2 inches by 4 inches by 6 feet, giving a total of 64 feet; there will be four pieces 2 inches by 4 inches by 8 feet, giving a total here of 21 feet, and six pieces 2 inches by 4 inches by 7 feet, giving a total of 28 feet and a grand total for this material of 103 feet. At the rate of $27 per thousand feet, this lumber will cost $3.78.

Now for the incidentals. Two pairs of hinges, with screws, will cost 50 cents; ten pounds of nails, 8d. and 10d., $1; roofing paper, $1.50; window and skylight, $1; lock, hasp and staples, 75 cents. By footing up our totals we will find that the outlay has been $15.04, and that we have provided a building ready to receive our garage equipment. A work bench has not been included in this estimate for the reason that nearly every rider has ideas of his own as to how he can turn out his work most satisfactorily, and it probably will be best for him to arrange his bench to suit the amount of fittings and general equipment he desires to have on hand. However, I understand that another writer in this issue, dealing with the equipping of the home garage, has offered some helpful suggestions for the erection of a bench.



Detail Drawing of Double Doors.

ENDURANCE RUN PLANS

A 20-MILE an hour schedule will be maintained in the 24-hour endurance run which will be held under the auspices of the Indianapolis Motorcycle Club May 16-17, when the state convention will be held. President McClain, of the Indianapolis Club, and the state organization have received many letters inquiring about the run and the convention, and predicts that over 100 riders will take part in the 24-hour event. The route is to be kept secret until a short time before the run.

QUEBEC-MIAMI HIGHWAY

MOTORISTS of Washington, D. C., are delighted with the news that the Quebec-Miami highway from the Great Lakes to the southern part of Florida and passing through Washington is expected to be completed by the end of September. Already that section of the road from Rouse's Point, on the Canadian border, to Washington is ready to travel, save for a few miles in Maryland, and this bit of road will be completed during the spring.

From Washington there will be a new road through Virginia, and the highway will pass over historic ground, crossing no less than twenty-seven battlefields of the Civil and Revolutionary wars. The road is being built by county bonds and by popular subscription. The Chamber of Commerce of Richmond has already raised $75,000 to aid in the work.

One hundred and fifty thousand dollars in bonds for the Richmond-to-Washington highway, from Spottsylvania Courthouse south to the Hanover line, have been issued. This is the last link in the chain. The money is now all in sight and the work will be completed during the fall of this year.

NEW HAVEN M. C. SCHEDULE

AT a special meeting of the executive committee of the New Haven (Conn.) Motorcycle Club recently held at the headquarters, a schedule for the coming riding season was mapped out. The club will hold its annual spring run Sunday, April 6. It has been decided to go to Saybrook, and it will be a secret time event. A three-day run to Providence will be held May 30, 31 and June 1, and on June 9 the club endurance run will take place. Other Sunday runs will be held as follows: April 20, to Springfield, Mass.; May 4, to Norwalk; May 18, to New London, and June 22, to Coney Island, N. Y.

CLUB AFFILIATIONS

SECRETARY GIBSON announces the affiliation of the following motorcycle clubs during the week ending March 15: Freeport M. C., Freeport, Ill.; Newburgh M. C., Newburgh, N. Y.; Malta Motorcycle Club, Buffalo, N. Y., and the West Philadelphia M. C., of West Philadelphia, Pa.

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SELECTING the GARAGE EQUIPMENT

BY D. R. HOBART

N considering the equipment of a private motorcycle garage it is to be assumed that the owner wishes to be as independent of the professional repairer as possible, visiting him only for fuel, oil or certain renewals of parts. Under these circumstances, a complete set of tools and spare parts, some "sundries" and a work-bench, and equipment therefor, will be ample for maintaining and repairing the machine which is the owner's pride and joy. A foot-power lathe might be added for those who are very remote from an agency handling their make of machine, and it is probable that a mechanically-inclined rider will have one anyhow, if there is space in the rather restricted area occupied by a motorcycle shed.

WORK-BENCH AND FITTINGS.

An ideal work-bench should be located in front of a window and its top should be about three feet from the floor. The top should be sufficiently strong to take any work that can be placed upon it, and a thickness of two inches will be quite sufficient for this. The material used should be some rather hard wood, or well-seasoned pine, the dimensions of the top being at least four by two feet. Where the garage wall will admit of its being done bolts should be put through the entire width of the top and fastened *outside* the wall to give greater steadiness. There should be four stout legs, well braced, and the chief tool, the vise, should be fitted opposite the window. The construction of an all-wooden bench should be left to a carpenter unless the owner is more or less experienced in this kind of work.

In addition to the vise, which should be strong enough to take the entire motor, say eight inches, it is an excellent thing to have a tool-board close to the bench and a drawer below the top. The tools are to be fitted on the tool-board, which can be made of a sheet of zinc with nails or pegs for the various screw-drivers, wrenches, etc. The spare parts, such as can be accommodated in the limited space, are to be kept in the drawer. The latter should be arranged in sections, so that the cotters, washers and springs do not injure any reserve spark-plugs, for example.

COMPLETE TOOL SET.

If the rider is methodical, the complete tool set may consist of those tools in the tool-bag accompanying the machine, plus a ten-inch monkey wrench, a six-inch one of the same variety, a Stillson wrench of six inches, a pair of cutting or combination pliers, a spark-plug wrench, and a corrugated handle screw-driver about eight inches long for valve-grinding. To this may be added a flat file, a half round file, a small Swiss file for trimming up platinum points, a valve spring remover, a small soldering kit with lamp, chain tool (where chains are used and the tool not included in the kit), and a set of tire levers. The last are most important, as taking off a tire with a screwdriver is injurious to the flap and bead. The owner-rider should be superior to the professional in providing the proper implements and using them.

SMALL TOOLS AND SUNDRIES.

Usually a drift, center punch and soft hammer are not found in a tool-kit, but they will probably be needed badly some time or other, and should be provided. The hammer should be of copper or fibre, and is to be used for striking where a steel hammer would crack or distort the work. Copper wire is very useful, and should be carried at all times, so that a small roll of it can be kept in the garage. A length of cable for replacing that from the magneto to the spark-plug is another useful "spare," and a kerosene can should be provided. A long-spouted oil can to get at the various oil-holes, etc., without difficulty, and an ample supply of wiping rags are essential. Some of the latter should be clean at all times, so a sufficient number is desirable. For cleaning the machine, a three-inch flat varnish brush and a sash brush, the latter about an inch through, and to be used for washing in cracks or corners, will give fine service.

ARRANGEMENT OF THE EQUIPMENT.

The chief motto for the private garage is "A place for everything and everything in its place." Hence, in arranging the pegs or rack for the various tools on the board, have those most used nearest the bench, so that they will be the more easily returned when the work is finished. The soldering lamp should be more or less isolated from the rest of the outfit on general principles, and have a peg of its own. The spares (valve springs, washers, extra plugs) go in the drawer, as previously mentioned, as do the chain tool and Swiss file. The wiping rags and brushes have their pegs on the wall, as has the wash pan. Spare tires, wrapped in cloth or put in a bag, and inner tubes, similarly housed and rubbed with chalk, are also hung up but away from the light.

FIRE PROTECTION.

For protection against fires, a hand extinguisher of the "Pyrene" type should be hung up near the door, and a box of sand would not be superfluous. The sand is useful in soaking up oil, etc., that has accumulated, and is easily swept out, carrying the oil with it. But the best way to avoid fires is to do all cleaning outside the garage and ventilate the latter by means of the open door as often as possible.

THE LATHE.

Where a lathe is decided upon, it should be placed in front of a window and have the gears, and other extra equipment on board close at hand. A lathe with six to eight-inch swing will generally be ample, and, using the small headstock cone, can be driven fast enough to do light grinding and drilling. About the only extra fitting for a regular lathe for this purpose is a drill-chuck, which can be obtained very cheaply.

BELLEVILLE TURNPIKE NOW OPEN

Important Traffic Route Between New York and Newark, N. J., Has Been Rebuilt to Avoid Half a Dozen Railroad Grade Crossings.

THE Belleville Turnpike, one of the most important connections between New York and Newark, has recently been opened to traffic after having been closed on and off for over nine months. The road has recently been entirely rebuilt to avoid five or six dangerous grade crossings. It is constructed on a heavy stone foundation, with a covering of very well-laid macadam, and as it runs the greater part of the way across the swamplands, it is as level as a billiard table.

Motorists going to Montclair, Denville, Lake Hopatcong and the Delaware Water Gap (without going through Morristown), are advised to use this road, as it presents a much better and more direct route than by the Newark Turnpike, which leads into the business center of Newark.

In order to use this route, the Newark Turnpike is followed as far as the dangerous D. L. & W. railroad crossing, which the trolleys go over on an odd double trestle; immediately after crossing the railroad tracks the first right-hand road is taken. The motorist is now on the Belleville Turnpike, which is followed past the cemetery at the foot of the hill, up the hill across the trolley tracks, and down the other side of the hill, across the Passaic River bridge into Belleville.

Immediately after crossing the bridge, turn left, taking the next right turn, up hill, crossing the Erie railroad tracks, and the trolley line on Washington avenue. Then continue straight ahead on John street, connecting with Glen Ridge avenue, which runs into Bloomfield avenue, in Montclair. From this point the regular route is followed through Montclair to Denville, Lake Hopatcong and the Delaware Water Gap, making a complete alternate to the other line via Newark, Morristown, Chester and Hackettstown.

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AN APARTMENT DWELLER'S GARAGE

How One Rider Stores His Motorcycle Safely in a Case Placed in Basement and Ingenious Platform System Which Permits of Getting Machine To and From Its Place of Concealment.

By William Hetherington, Jr.

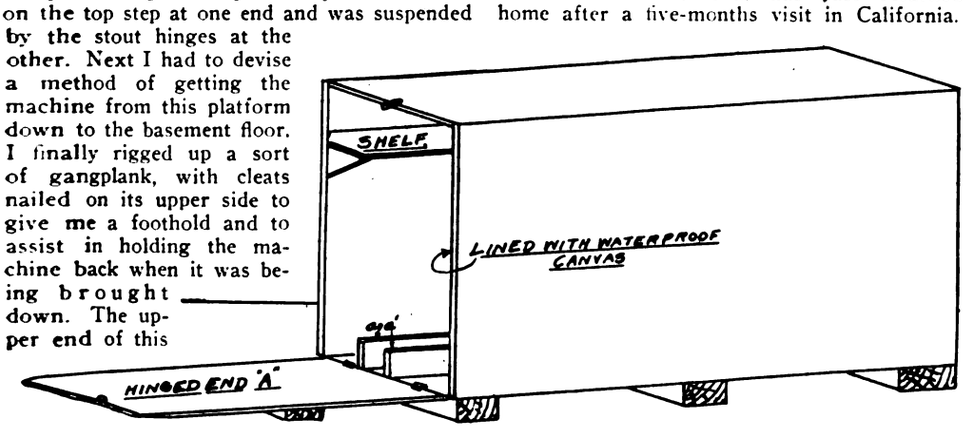
COMPARATIVELY few city riders realize how much satisfaction can be derived from a little home garage, no matter how humble it may be, and it is for that reason that I am undertaking to pass along some pointers that I have acquired in half a dozen years' experience as a motorcyclist. As a rule the city rider who attempts to keep his machine at home finds himself encountering all kinds of obstacles, and in desperation he finally stores it in a public garage. I have found this unsatisfactory, especially when the motorcycle is left at an automobile garage, and I feel certain that I am not alone in this opinion. After several unpleasant experiences I set about solving the garage problem from the viewpoint of an apartment dweller, and I am going to tell how I did it.

To begin with, I had to overcome a fine assortment of objections that were raised by the landlord of the apartment house in which I live. He regarded a motorcycle as a general trouble-maker, and especially a breeder of fires, and all my diplomacy was called into play before I finally obtained his consent to proceed with my plans. At that, I had to agree to pay the additional fire insurance premiums which were tacked on by the company as soon as it became known that I was to store a motorcycle. I did not object to this as I saw it was the only way to clear the way for my home garage.

GETTING THE MACHINE IN AND OUT.

Having disposed of the landlord I turned to the question of getting my motorcycle in and out of the apartment basement, for that was the only available place on the premises to store it. Obviously, I could not hope to get the machine up and down the basement steps, and it became necessary to rig up a platform system. I worked out several plans and finally hit upon a scheme. I decided that I must have a platform over the steps upon which to wheel the machine from the street level, and I managed that by swinging a strong but comparatively light platform from the wall facing the steps. This platform was hinged to the wall so that it could be hooked up out of the way when not in use and quickly let down when I wanted to bring my machine in or get it out.

The platform was so braced that it would carry the weight of my motorcycle. It rested on the top step at one end and was suspended by the stout hinges at the other. Next I had to devise a method of getting the machine from this platform down to the basement floor. I finally rigged up a sort of gangplank, with cleats nailed on its upper side to give me a foothold and to assist in holding the machine back when it was being brought down. The upper end of this gangplank was bolted to the platform above referred to so that it could be readily detached, and the other end simply rested on the basement floor. That is how I got around the problem of handling the machine. It is not a very simple matter even yet to get the mount in or out, but it can be done without great difficulty.



Waterproof case with hinged end for storing motorcycle at home.

A CASE FOR THE MOTORCYCLE.

Then came the arrangements for storing the machine. I built the case shown in the accompanying illustration and lined it with stout waterproof canvas. I placed the two wooden strips shown at "AA" to assist in keeping the machine upright and to prevent it from scraping along the side of the box when being placed in storage or removed. When the machine is not in use the end "A" is raised and the case is locked. This eliminates the possibility of anyone tampering with my mount while I am away.

In one corner of the basement I partitioned off my workshop, in which I fitted a workbench, vise, tool cabinet and clothes locker. For the convenience of my friends I installed two rocking chairs, and they were quite willing to sit around and give me advice. All in all, I found that I had a very satisfactory little shop and garage.

The various small parts, such as screws, nuts, washers, etc., I placed in glass jars which enable me to see at a glance what each receptacle contains. The total expense of fitting up this apartment garage was much less that I would have been called upon to spend for storing my machine in a public garage for a year. Besides I found it a great advantage to have the motorcycle at hand, for I was able to give it more attention and thus obtain greater satisfaction from it on the road. I believe every rider likes to tinker about his machine to a certain extent and I feel well repaid for the special efforts I had to make in order to perfect my home storage system, and I am certain that almost any other apartment dweller can achieve the same results. Some of the boys can get through with less trouble than I had while others may encounter a few more obstacles than bothered me, but "where there's a will there's a way."

A. L. OSBORN, the well known referee of Denver, Col., has just returned home after a five-months visit in California.

CIRCULATION OILING

By Britisher.

A WRITER on page 47 of your December 26 issue criticizes the "circulation" oiling system on the ground that when the oil has circulated a few times it is found to contain chips and fine powder, consisting of aluminum, bronze and cast iron. He asks us to imagine the rubbing effect of these little chips on the bearings, and remarks that no gauze screen is sufficiently fine to intercept them. I want him to wear his thinking cap a little longer. I have never put the drainage of a crankcase under a microscope, but I will take his word that his analysis is correct.

The first question I shall ask is what becomes of these chips in the ordinary oiling system? I have analyzed carbon deposits scraped off the piston and combustion head, and I can inform him there is only a tiny percentage of metallic matter in these scrapings; ergo, with ordinary oiling systems this powder remains permanently between the bearing surfaces, or, alternatively, stops by its weight at the lowest bulge of the crankpit; if so, not being carried in the oil, it would not travel round with a circulatory system. The second question I shall ask is how many riders use any filter at all with the ordinary handpump system?

On the average machine the oil never gets any straining; it carries with it any impurities remaining from process of distillation, dirt off the can top, dirt out of the funnel used to get it in the tank, and *all* the abraded metal ground off parts of the engine in running. Thus the oil of a circulatory system, being filtered at least once in each circuit, is necessarily cleaner than the oil splashing about in a standard engine. Finally, I will satisfy his imagination about the effect of these circulating particles of metal on the bearings. Practically every first grade automobile engine utilizes a forced oil circulation. Yet it is common knowledge that the bearings of a first grade automobile engine wear *very much longer* than the bearings of a first-class motorbicycle.

I am very fastidious about my engine bearings, and I reckon to renew the big end bearings of my motorcycle engines about every 3,000 miles, if I am looking for perfect efficiency. I have just taken down the engine of a British automobile (a cheap $1,500 four-seater) after four years' use, and I have not found it needful to replace a single brass. Durability is all on the side of a circulating oil system, and the hare your contributor has flushed is purely imaginary.

EARLY BIRDS GET FUNDS

COUNTY commissioners throughout Ohio are being requested to make their application for road appropriations early. Last year many counties were late in filing their applications and as a result several of them received no funds.

IT has been officially announced that John U. Constant will occupy the position of official starter at the Brighton Beach Motordrome during the coming season.

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A MUD-GUARDING SYSTEM FOR THE BELT

How Simple and Inexpensive Shields May Be Fitted to Protect the Transmission Agent in Heavy Going.

WHILE experienced users of belt-driven motorcycles obtain satisfactory service from their transmission agents under widely varying weather conditions, there is, especially at this season, a persistent demand for some sort of effective shield to keep the belt fairly clear of mud and thus enable it to put forth its best efforts. The problem of shielding the belt has been approached from various angles, and with considerable success in some instances, but the fact remains that the rank and file of motorcyclists do not give this feature the attention it deserves. Beltmakers are embodying all that is possible of ingenuity and high-grade material in their products, but even this care in construction cannot be expected to offset all the conditions encountered in a long trip over muddy and flooded roads.

As the belt passes around the engine pulley it is liberally splashed with mud and water from the front wheel; then as it passes the rear wheel on its way to the beltrim it receives a second splashing, and in especially heavy going it also has to contend with mud and water that drips down upon it from the rear mudguard. Owing to the fact that the latter only falls upon the outside of the belt as it passes over the beltrim it is not likely to cause immediate trouble, but the splashings from the wheels are more serious. In other words, it should be the primary aim of the rider to protect his belt from below.

In one belt-shielding system recently observed by the writer a light metal shield had been contrived to extend from the lower rear fork member on the belt side to a point about two inches below the line of the belt. At this point it was turned outward under the belt to a width of about three inches. A curved metal shield, slightly wider than the lower one just referred to, was brought up forward of the engine pulley, and in this way the belt was fully protected as it passed over the pulley, on its way rearward and as it passed the line of the rear wheel. Strange to say, the whole guarding system was quite compact and did not detract materially from the appearance of the machine.

In order that the shield extending downward from the rear fork member will not flap or be bent inward against the wheel a brace may be attached to it on the inside and carried upward to the opposite side of the lower fork. In this way it will be held rigid without being encumbered with the assortment of metal straps and braces found on some home-fitted attachments. If the rider desires to protect his belt from above he may have a light strip of tin or zinc, from two to three inches wide, attached by an arm extending outward from a clamp on the seat-mast tube. As there will be no strain on this shield it can be held quite easily. If additional rigidity is found desirable the rear end of this shield may be fastened to the rear fork.

The mere fact that a belt does not fail on a muddy road is not sufficient reason for neglecting arrangements to shield it. If the machine is driven to any extent over wet highways the material thrown up by the wheels and splashed upon the belt is certain to convey grit and road gravel to the inner surface of the transmission agent in time and this will be imbedded in the leather, to the ultimate ruination of the belt and the pulley faces. This process may not cause immediate trouble, but it is certain to cost money in the end. Therefore it behooves the careful rider to give thought to his belt even when it is not bothering him.

In addition to protecting the belt the mud-shielding system referred to above helps to keep the machine clean and adds not a little to the comfort of the rider on a long trip.

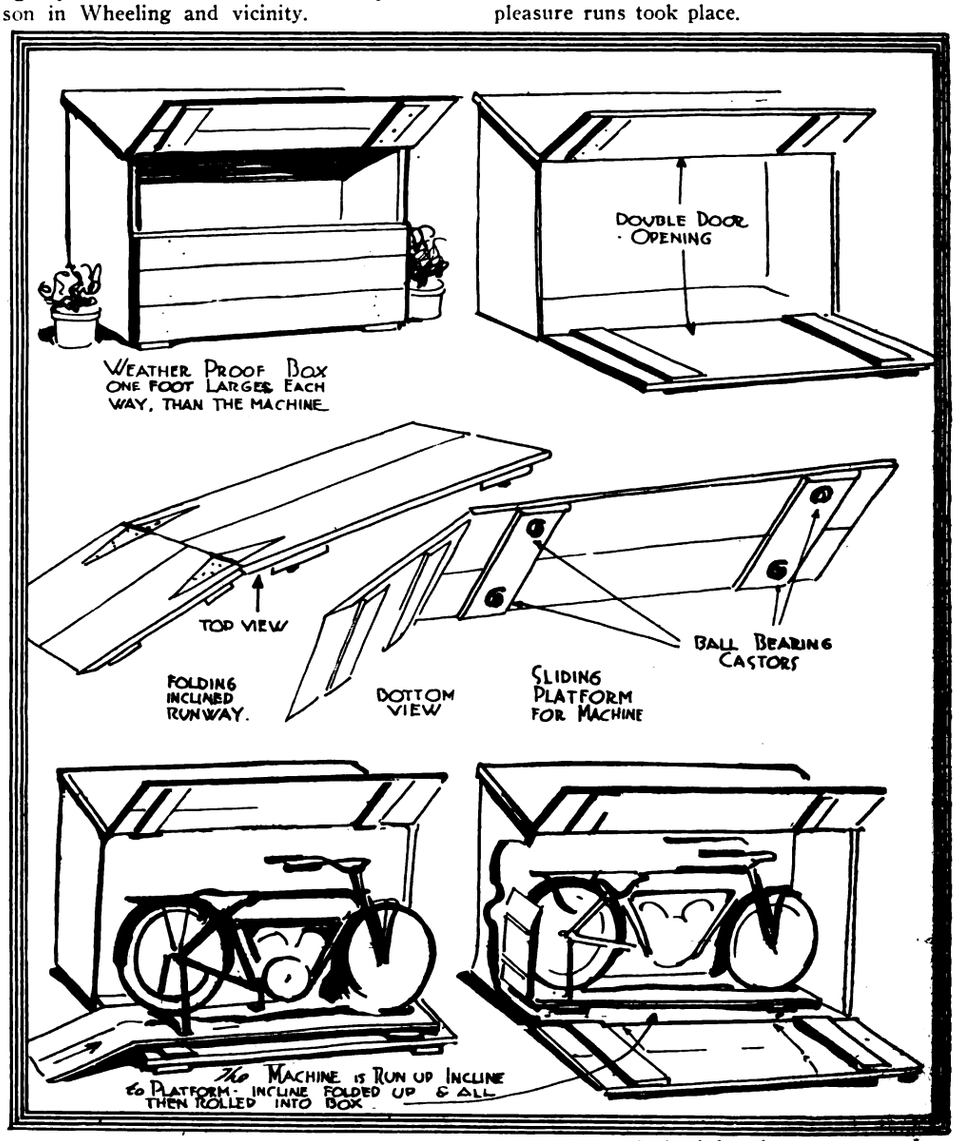
C. F. BRAUMLICH & CO., of 1012 Market street, Wheeling, W. Va., have taken the agency for the Excelsior and Harley-Davidson in Wheeling and vicinity.

BALTIMORE CLUB TO INCORPORATE

VICE-PRESIDENT SHAFFER, of the Maryland M. C., of Baltimore, announces that plans are now under way for incorporating the club under the laws of Maryland. Shaffer is also chairman of the house committee and asserts that the prospects for obtaining a site for a new clubhouse in the near future are bright. The Baltimore club now has a membership of 112.

WALLA WALLA RIDERS MEET

AT a recent meeting of forty motorcyclists of Walla Walla, Wash., the Walla Walla Motorcycle Club was formed. Informal discussions relative to race meets, endurance and pleasure runs took place.



IN the above sketches is shown an extremely simple method of housing a motorcycle at home, when there is not sufficient room for a full-fledged garage. The structure is nothing more than a large case, fitted with a rolling platform on which the machine stands when housed. When the motorcycle is to be used this platform rolls out on the lower door (as shown in the lower lefthand sketch) and is then wheeled off. It is an easy matter to push the machine up on the platform and slide it back into the case when it is to be stored again. The case should be waterproofed and fitted with a good lock. It is intended to be fastened against the side of another building to give it stability.

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IN & ABOUT OLD CHARLESTON

BY ROBERT BRUCE

THE city of Charleston, South Carolina's chief seaport and commercial center, presents to the motorcycle visitor a romantic and charming aspect. This city, so rich in colonial history, still retains many of the characteristics of its early Huguenot days. The old churches are still to be seen, and a visit to the cemeteries brings to notice many historic names, and some of the romances of Colonial days.

Starting at the Battery, the visitor rides up Meeting street to Broad street, which is the center of the old town, passing many quaint residences of ante-bellum days with their broad two-storied verandas, invariably facing the south or the shore. On one corner is picturesque St. Michael's Church, from whose belfry was rung the first call of Secession. On the opposite corner is the City Hall, in back of which is the old park. In this park there are several monuments to the heroes of the South.

AT THE OLD MARKET.

The new post office opposite St. Michael's appears incongruous from its very newness. In this city, which has lived so long in the romance of the past, it almost seems as if even the new buildings should take on the mold and rust of bygone days. Passing further up Meeting street we come to the old market. This long block of buildings with their brick floors, worn down by the tread of passing feet, are relics of days long since past. The middle market was used in early days as a mart for slaves, of which we are not very proud. The visitor is not often told that this market was used for the selling of slaves, but the second building still bears evidence of its use for this purpose in the early days.

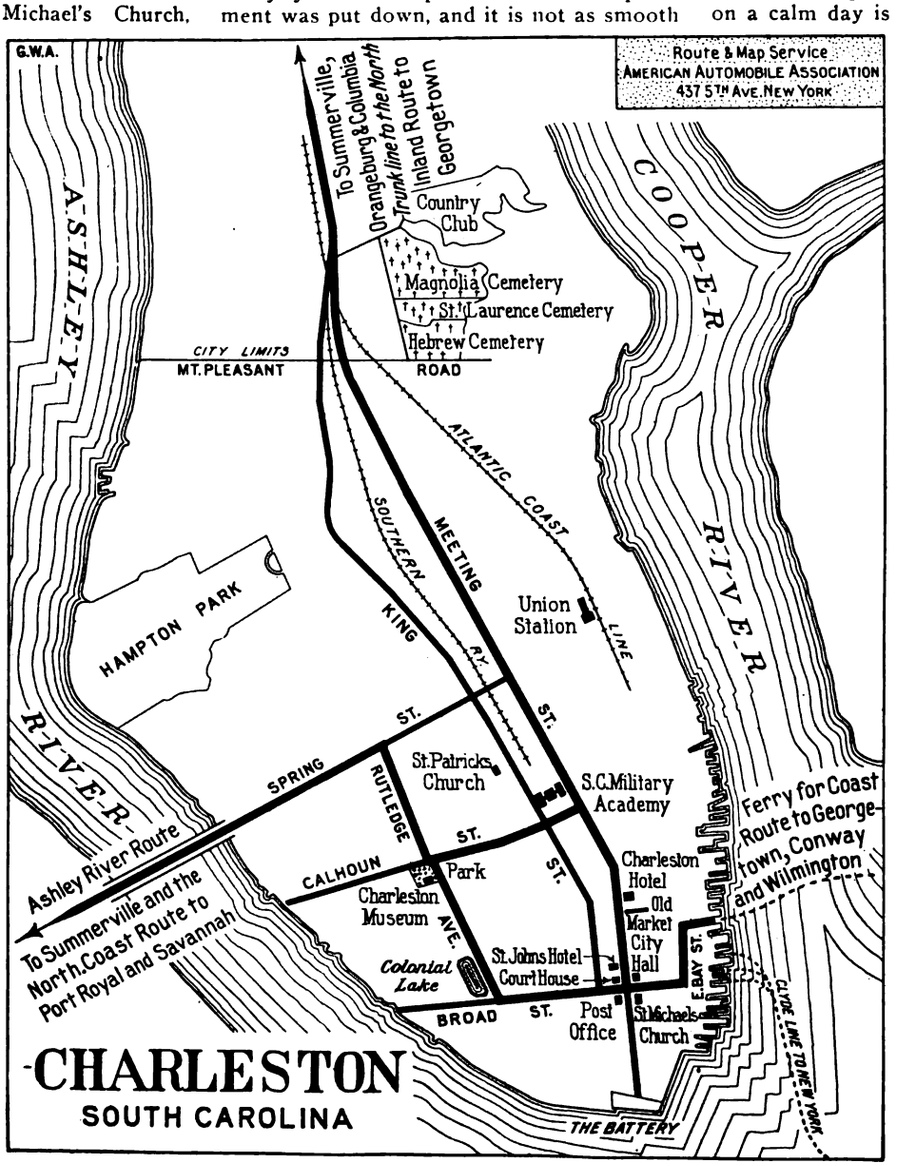
One block from Meeting street is the business thoroughfare of Charleston. In the beginning it is very narrow and paved with brick, but it is now gayly decked with streamers of incandescent lights along its entire length. There is a street car running through King street, but when we say "run" it is a misnomer; for owing to the traffic, its rate of speed is somewhat slower than an ordinary walk. Charleston boasts of King street and exultingly tells the visitor that "on our main street we have two miles of stores." In the days before asphalt was known as a paving material, Charleston boasted of being the best paved city of its size in the Southern States; probably at that time it was not an empty boast, for there are many miles of granite block pavement. Many years have passed since this pavement was put down, and it is not as smooth and good as in the days of its pristine glory. There is some asphalt paving in the town, a real good stretch, several blocks long, which some day will be part of a fine boulevard along the Battery.

THE CHARLESTON MUSEUM.

Probably the best street for the motorcycle visitor is King street, although owing to its narrowness there is little danger of breaking the speed law. King street, as far as the Battery, is paved with brick, while Meeting street, the one most generally used, is of worn granite blocks. On Rutledge avenue there are two points of interest: one the pretty Colonial lake; this lake on a calm day is extremely pretty, and the children of the better class sail their little boats upon it, but on a day when the east wind blows, how very different is the picture! If the wind is strong, it blows all the water out of the lake, and there is nothing but a muddy morass.

Farther up the street is to be found the Charleston Museum, which is particularly interesting to both Northerner and Southerner. The latter will find many relics of the "lost cause" set up almost as little shrines, where the unreconciled may worship. There are many evidences of the sacrificing love of the Southern mother of 1861. This museum will be very interesting to the visitor from the North.

With all of his love for the flag of his country as it is today, the old-time citizen of Charleston and his children cherish a love and veneration for the South as it was (before the war), and there are many reasons why, even today, the Southerner or the Charlestonian cannot love with wholeheartedness his brother of the North. In those past days he suffered the hardships of the war, and his wife, mother and sister often



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were in absolute want of food. And then when Sherman came, it was not the actual devastation of his troops as much as the fear which came from the magnified tales of what he was about to do. The motorcyclist riding along the road on the west side of the Ashley River will pass many estates, now gone to ruin, which were in the height of their glory before the war. Many of the buildings and Colonial homes, which never can be restored, were burned by their owners lest the "Yanks" should have the satisfaction of ravaging them.

THE NEW SPIRIT OF PROGRESS.

The Charlestonian of today has, however, learned that the "dead past should bury its dead," and that the future holds much of glory for his city. No task is too great for him to attempt, and better than all, when he attempts, he succeeds. Commercially, the city is larger and better than it had once dared hope to be, and improvements are under way which some think will eventually make Charleston the metropolis of the South.

In the building of roads they have done much. Many miles of the road toward Columbia have been sand-clayed or covered with Augusta gravel. Both of these methods produce an excellent hard surface road, which is good throughout the whole year. Owing to the nature of the soil, the roads of Charleston and Dorchester Counties never become really dusty. There is an under layer of sand, which by its capillary action retains enough moisture so that the roads do not become dusty. Many miles of this road are through pine forests, and the climate is so even that here is located the only commercially successful tea gardens on the American continent.

The State of South Carolina has established, a few miles from the city, a very excellent experimental farm, which has done much to improve the agricultural production of the counties. Along the banks of the Ashley River may be seen what are undoubtedly the most magnificent assortment of magnolias in this country. At this season, when the north country is still sleeping under its blanket of snow, these magnificent trees of the South are in full bloom.

Geographically, Charleston is very similar to New York City. It is a long peninsula, terminating in a point known as the "Battery." On the eastern side is the Cooper River, and on the western the beautiful Ashley. To the south and the southeast is a rather large bay dotted with many islands, and farther out is the main channel which passes between historic Fort Sumter and Fort Moultrie. Its strategic position again reminds one of New York, as Fort Johnson is placed similarly to that of Fort Wadsworth, while Fort Moultrie corresponds with Fort Hamilton. To the south is Cummings Point, which is a long, narrow peninsula very similar in shape to Sandy Hook. This channel has been dredged by the government and today the largest ships may safely steam to the wharves of the city.

SALT PALACE SAUCER

SALT LAKE CITY, Utah.—Harry Heagren recently obtained a nine-year lease on the Salt Palace saucer track in this city. Mr. Heagren has signed up with a number of well-known riders, and will conduct both motorcycle and bicycle races.

FIREARM LAW BOTHERS TOURISTS

Motorcyclists Who Carry Weapon of Defense on Long Trips are Confronted by Problem on Entering New York State.

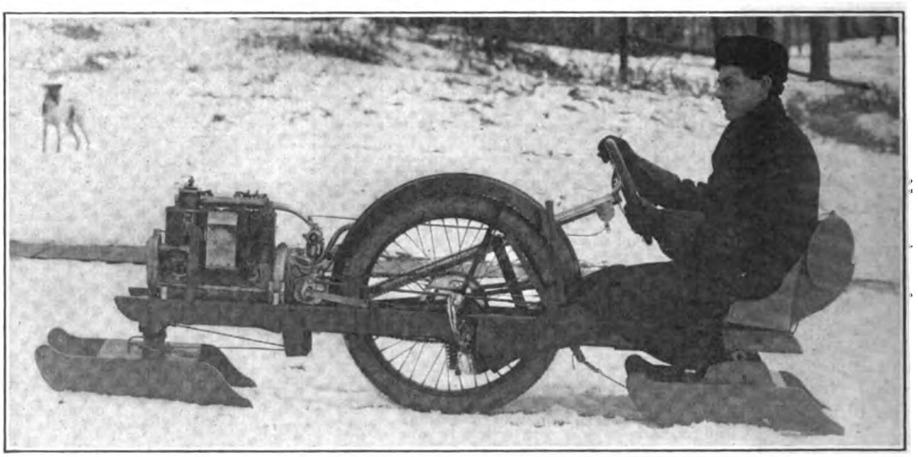
IT is a matter of common knowledge that many motorcycle tourists carry a firearm, and in almost all the states no liability is incurred thereby. On long trips in the West and South, some weapon is practically necessary, especially against marauding animals when camping out at night. However, it is fairly well known that New York State has a stringent law against carrying firearms, and frequently our friends from other states coming into or passing through New York, are in entire ignorance of it, and therefore unconscious breakers of that law.

From the standpoint of any officer who might make an arrest, ignorance of the statute would be no excuse, except that the judge might rule less harshly on that account. So motorcyclists who include any fiearms in their equipment, are advised to keep it securely packed with their other equipment while within the state. Of course the law was passed to keep deadly weapons out of the hands of thugs in the largest cities, and not to prevent their legitimate use by responsible parties, but here again the statute knows no distinction. It is applied impartially to all, both natives and visitors.

Under the law of May 25, 1911, it is a misdemeanor for anyone to have in his possession, in any city or town in the state, a pistol or other firearm without a written license, issued by a police magistrate or a justice of the peace of the place where it is carried. Obviously, it is impossible for the tourist to meet this condition, and he is forced either to throw away any weapon he may have brought with his other baggage to the border of the state, or to hide it where no officer can discover it.

In some instances, such as crossing the international bridge from Canada to Niagara Falls, N. Y., the motorcyclist carrying a revolver would be in a curious predicament, as of course the Custom House Officer would examine all baggage. In the last analysis, the tourist would be "not guilty" on the Canadian side, but "guilty" on the American side, in which case the only logical action (according to the strict letter of the law), would be to stop long enough on the way across the bridge to get out the firearm and throw it down into the seething Niagara River.

Another phase of the law is that no one not a citizen of the United States can procure a license under any conditions, the idea being of course to keep firearms out of the hands of ignorant aliens. But its rigid and impartial enforcement would prevent a bona-fide tourist from Canada or Europe from bringing any weapon into the state or buying one here.



BUTLER'S MOTOR-SLED

FOLLOWING a recent snowfall in Toledo, Lee Butler, a motorcycle enthusiast of that city, attracted considerable attention with a novel type of motor-sled. This outfit, which was designed and constructed by Mr. Butler, is claimed by local motorcyclists to be the most complete ever made. Butler has obtained a speed of fifty miles an hour with it.

NEW F. A. M. HAND BOOK

SECRETARY GIBSON announces that a complete new copy of the F. A. M. "Helping Hand" Book is now in the hands of the printers, and will soon be ready for distribution. This book will contain more than twice as much general motorcycle information as the 1912 edition. Descriptions of the 1913 motorcycle models will also be given. Announcement is made that the new repair shop booklet which goes to press April 1 will be ready for distribution about April 15.

"ZIM'S" LATEST RECRUIT

P. E. ZIMMERMAN, of Lindsborg, Kan., has been trying to interest lawyers, bankers and merchants in motorcycling with a view to elevating the sport in Kansas, and his latest convert is Gust Lund, Latin professor at Bethany College, and also an athletic director. Mr. Lund has become so popular in the latter capacity that he was recently chosen president of the Missouri Valley College Athletic Conference, which includes colleges and universities in several States. He was recently elected vice-president of the Short Grass Club, and is proving a strong factor in the promotion of the 1913 tour.

BACK FROM THE COAST

GUY JACKSON, a prominent member of the Terre Haute (Ind.) M. C., who has spent the winter motorcycling in California, is making the return trip to Terre Haute. He will be one of a party of Terre Haute riders to make a tour to New York this summer.

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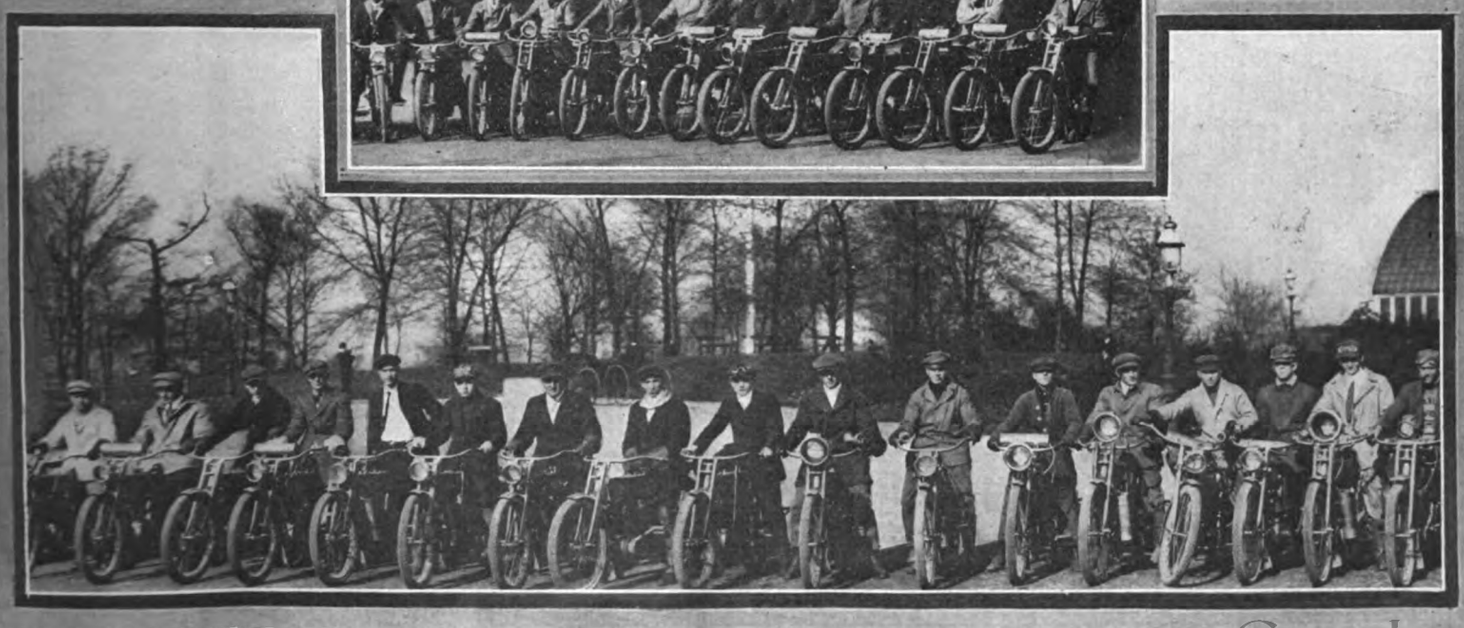
ON this page are shown some of the riders who figure in Milwaukee's formidable brigade of Harley-Davidsonites. These enthusiasts are patrons of the Mueller Cycle Company, and the panoramic photograph in which they appeared was so long that the artist was compelled to arrange them in groups.



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The MOTORCYCLE AS A VOTE-GETTER

By R. S. SPEARS.

WILLIAM QUACKENBUSH was city treasurer of Little Falls, N. Y., last year when he made up his mind that if he could get out into the environs of his home city and throughout Herkimer County he would be able to convert enough voters to his way of thinking to be elected county clerk. Getting at the voters involved a problem, however, for Herkimer County is not noted for its good roads and Quackenbush's plan called for a lot of traveling and first-hand canvassing. He could not afford an automobile, a horse and buggy would be too slow and costly and a bicycle was out of the reckoning, for two reasons. In the first place the roads did not invite bicycle travel, and secondly Mr. Quackenbush is deprived of the full use of one of his legs, and could not pedal his way into the country on long trips. While he was still pondering the situation a friend called to his attention the advantages of the motorcycle, and he saw that the problem was solved.

The prospective candidate did not fully make up his mind that the motorcycle would meet his requirements until he saw a young man go up Salisbury street in Little Falls one afternoon on a motor two-wheeler. People who do not know Salisbury street will not be able to form a proper idea of what it means to see any vehicle going up that grade—for it is a grade of the gradiest kind. They say a man almost rode a bicycle up that street on a memorable occasion—almost, but as a rule folks go around it. Well, the young fellow on the motorcycle curved up out of Main street, took the middle of the street like a scared cat, turned up on the sidewalk at a crossing, reared up over a graded terrace onto a lawn and pulled up calmly at the entrance to his garage.

"Um-m-m—hem!" mused City Treasurer Quackenbush, doing some strictly political thinking. "It's going some to get up that hill."

A FULL-FLEDGED MOTORCYCLIST.

A day or two later the official visited some of the local dealers and asked questions anent motorcycles. The time for making county nominations was coming on and Quackenbush has rubbed some of the politicians the wrong way, but he managed to obtain the nomination for county clerk. As a result it was necessary for him to get down to business without delay. No politician believed that Quackenbush could win, for he had few acquaintances outside the city of Little Falls. It was acknowledged that the county clerkship would bring on a hard fight, and it was taken for granted that Quackenbush's limited acquaintance outside his home district would leave him out of the race. But they figured without the motorcycle.

Quackenbush bought a machine, learned how to operate it and in jig time he was out on the road. From that time forth he was out of the saddle only long enough to snatch a bite to eat now and then and to steal forty winks when physically exhausted. According to the stories told by the politicians he traveled day and night. There was no cyclometer on his machine, so it is not possible to state his mileage, but it suffices to say that he covered all of Herkimer County, up one road and down the next—and always on the go. It was a tough campaign in more ways than one. There was plenty of rain, the roads were very muddy and Quackenbush did not always know his routes, but he managed to get through.

A SAMPLE EXPERIENCE.

One night he was down in the big hills south of the Mohawk river. The great ridge is not often traversed by anyone, but tucked away in the gullies and along the ridge crest there are votes—many of them. As a rule campaigners do not attempt to cover this territory, for it offers too many obstacles, even for automobile travel. Quackenbush decided that he needed the elusive votes scattered in this section and he went after them. He rode hundreds of miles up and down the flanks of that ridge, into little settlements and out into the woods where the men had forgotten that elections came any oftener than the census. He went into every farmhouse, into every cross-roads store and into every nook and cranny where he suspected that a vote might be lurking.

So it came about that he found himself in this district on the night before referred to, and that he was overtaken by a nasty squall. It was one of those beating storms that turn roads into wallows of mud. Quackenbush floundered through it on his motorcycle and finally lost his way. He chugged on aimlessly until he saw a light and finally obtained shelter in a farmhouse. It was such work as this that earned Quackenbush his reward.

SOOTHING A SKEPTICAL FARMER.

When Quackenbush reached the farmhouse a rather irritated old man answered his knock at the door.

"Who are you; what do you want?" the man demanded.

"I want to stay all night with you—my name is William Quackenbush."

"What's that thing you've got there?"

"It's a motorcycle!"

The farmer backed away apprehensively, and edged around from in front of it.

"Where would you put it?"

"Why, in the barn."

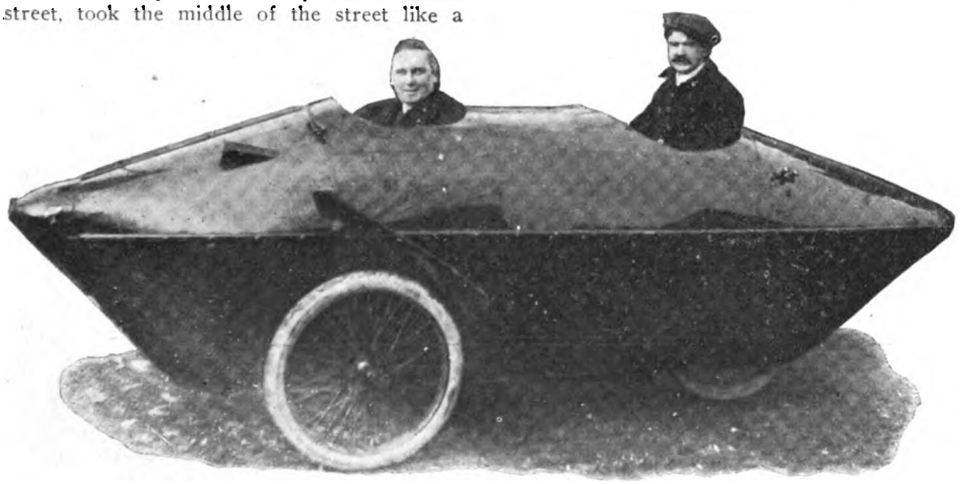
"No siree! Why, that durn outfit would blow up; I know them things. They blow up. My mother's 76 years old, an' we ain't goin' to have no sech excitement around here. She'd never 'low any one to put one of them things in the barn!"

The storm kept rolling up, with booming of thunder and flaring of lightning.

"Well, ask her—tell her to come out and look at it," pleaded Quackenbush.

The farmer thought that was reasonable, and brought his mother and sister to the door. They looked the machine all over by lantern light.

"Wall, naow, Dick, that's all right," said



R. C. BOYD, of 27 Stanhope street, Boston, Mass., agent for Flying Merkel motorcycles in the Hub, is the designer and owner of the wierd outfit shown above. What appears to be the hull of a submarine really is a metal body built over a motorcycle and forecar attachment. The nose, which is designed to look as much like that of a fish as possible, carries an electric headlight when in night service and above, in the position eyes, are two electric lights, red and green, so arranged as to flash alternately. Boyd designed the outfit primarily for advertising purposes, but states that he also finds it handy for mud-larking. The owner is seen in the rear "cock-pit."

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the old lady. "It's real purty an' nice, spite o' the mud."

That settled it. If the women folks didn't kick, the old man could stand it. They went out to the barn, and rolled the machine in.

They raised the machine up on its stand, and the farmer stepped back to admire it. Something about the adjustment didn't just suit him, and he proceeded to balance the machine as he thought it ought to be. He gripped the feed-pipe and the saddle and lifted. Something had to come, and the feed pipe came out by the roots. The gasoline poured out of the tank on the floor.

"Fire! Fire!" yelled the farmer as he ran to bring buckets of water. He returned with two buckets half full, but there was no fire—only a strong odor of gasoline.

"Never mind!" Quackenbush remarked, as the man viewed the damage he had wrought. "It's all right, only you'll have to take me to town tomorrow on your wagon."

HOW THE VOTES WERE GATHERED.

In the morning, Quackenbush went to town on a springless lumber wagon, easing the motorcycle over the hard places. He had spent a comfortable night in an outside bedroom in a bunk across from the hired man's room, and while turning out in the morning, he nabbed the hired man's vote, too. Later he landed the farmer's promise.

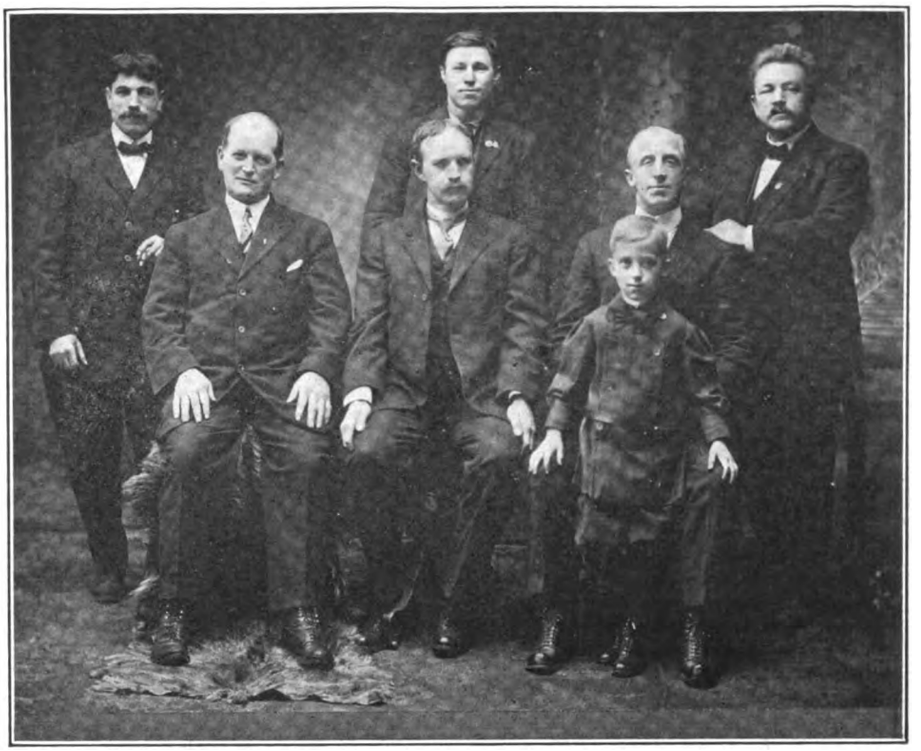
"Bill" Quackenbush worked into Stark, Russia, Fairfield, Salisbury, Columbia, Manheim, Norway. He rode through eighteen of the twenty-two towns, striking into the most remote places. He came down to the rich farms of the country's great dairymen, and whether he was on the far hills or in the fields, he laid down his card, announced his ambition, said why, and then left the matter with the hearts and consciences of the voters.

The politicians tried to squash "Billy" Quackenbush. He wouldn't have had a ghost of a chance to win, with ordinary means of travel. He just had to see the voters, talk to them face to face, to get the votes. He saw thousands. He went into Bull Moose strongholds, and won a shower of ballots; he raided Democratic districts and pulled a storm of votes; among the Republicans, in spite of efforts to keep his vote down, he ran far ahead of his ticket.

QUACKENBUSH VICTORIOUS.

He won handsomely and was the only county man to win. Everything was against him, except his personal reputation and his faithful old one-cylinder which threw the sand, spattered the mud, bumped over the water-washes and hummed up the made-roads. His whole campaign centered on the motorcycle and the fact that it carried him from house to house, from field to field, wherever there were votes to be had. He would lean the machine against a fence, and walk out to the potato diggers and the corn huskers—and he gathered the votes in, without regard to party.

The more the politicians think of it, the more they stroke their chins. Three years ago, T. Douglas Robinson, the nephew of Theodore Roosevelt, introduced the automobile into Herkimer county campaigns, and now Billy Quackenbush has introduced the poor man's campaign traveler. Billy couldn't have afforded the automobile transportation, but going on the motorcycle was cheaper, quicker, and more efficient than the automobile, as those who opposed him discovered.



AT a recent meeting of the executive committee of the New Haven (Conn.) Motorcycle Club, held at the club headquarters, a schedule for the coming season was laid out. Officers of the club for 1913 appear in the accompanying photo as follows: From left to right standing, Henry Jarmie, captain; B. D. Lattin, president, and George Hinman; sitting, J. Boyce, treasurer; W. W. Benham, secretary, and first lieutenant John Noll and his son.

RE-ENAMELING THE OLD MOUNT

Process of Giving the Machine a New Coat is Not an Intricate One But Utmost Care is Needed for Good Results.

THIS is the time of year when motorcyclists who have decided to make their 1912 mounts carry them through another season are puzzling over the problem of brightening up the faithful bus without laying out large sums with the repairmen, and in this connection it is likely that there will be numerous attempts at home enameling. The enameling process is not as intricate as many riders believe, but it must be entered upon with great care if satisfactory results are to be obtained. Above all things, the rider who is giving his mount a new coat should not try to hurry the job. He should carry through each phase of the work painstakingly and as if time were no object.

In cleaning off the old enamel, for example, infinite care is needed if the new coat is to present a smooth appearance. This cleaning operation will be the most tedious encountered by the enameler, but it cannot be neglected or slighted at any point. In due time the frame will be perfectly smooth and free from the old enamel, and the rider will then be called upon to select the new color for his mount. Black, gray and green are the favorite tints, with a growing preference for the latter. If either gray or green is chosen, special care should be taken to see that the color is not too light. There is a happy medium that combines attractiveness with serviceability.

The tank may be finished in aluminum paint, lined with blue or green, or any other color combination may be worked out as long as it does not contrast jarringly with the general treatment of the frame. For all practical purposes the aluminum paint with a thin, neat stripe of the color used on the frame should give satisfaction and wear well. The frame should have three coats of enamel, each being applied in a very thin coating, and then allowed to dry thoroughly before the next coat is applied. If the plated parts are badly rusted they may be covered with aluminum paint or enameled. In this way much labor will be saved and the result will be quite satisfactory. In the case of a machine that is in first-class condition mechanically it may be worth while to have these parts replated, but as a rule this will not be found desirable.

Some eminently practical riders are getting to the point where they follow the example of the Britishers and enamel some of the parts and fittings that formerly showed bright surfaces, and as a result they are dodging much work and worry and still keeping their mounts fairly shipshape. Where black enamel is used on the lamp, horn, handlebars, etc., it must be admitted that the machine presents rather a funereal aspect, but its owner is able to wipe it off after a run through rain with the knowledge that he will not find a lot of bright covered with rust when he is ready to take it out again.

The appearance of the cylinder may be improved by an application of blacklead and water after all dirt has been removed.

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The LADY MOTORCYCLIST

By NORA HOUGH

AS an English lady rider who takes a keen interest in the sporting side of motorcycling, I read with interest the accounts of competitive events held by American clubs, and I notice with regret the fact that there are no lady entrants to be found on the lists. True enough, one or two of your feminine enthusiasts will figure in an endurance run in connection with a sidecar outfit occasionally, but I know your lady riders do not appreciate as yet the excitement to be derived from riding solo in a full-fledged reliability trial.

The accompanying photographs show two of the tests provided in the recent British reliability trial organized by the Mid-Warwickshire M. C., in which I had the honor to ride. There was an entry list of 200 riders, and 180 faced the starter. Nearly every make of English motorcycle was represented in addition to an Indian, of your American make. No doubt the extremely bad weather was responsible for the scarcity of lady riders, there being only three, the writer, on an open-frame Douglas twin lightweight, and two ladies driving sidecar combinations. The latter are being favored very much by ladies over here, and passengers are not at all hard to find, especially among the men folk, who prove their worth when one has mechanical trouble or a bad puncture.

To get back to the trial itself. The course was an extremely interesting one, passing through Kenilworth, Warwick, Stratford-on-Avon and the pretty village of Broadway. The novelty of the trial lay particularly in the variety of the observed tests. There were no less than four severe hills, an acute right-hand turn on an upgrade being included, so that, all in all, the trial was one of the most severe yet held here. Out of the 180 competitors only eight obtained full marks.

The first hill encountered, Saintsbury, was of the snaky kind with a surface of sticky clay, and I am quite convinced that your most experienced lady riders would have found it sufficiently exciting. Next came the descent of Willisey. This we did not ride down; we simply sat tight and skidded down. Nevertheless we were glad to do it, for it showed us what we would have to climb on our return journey. The second acclivity was a

Miss Hough rounding a bad turn.

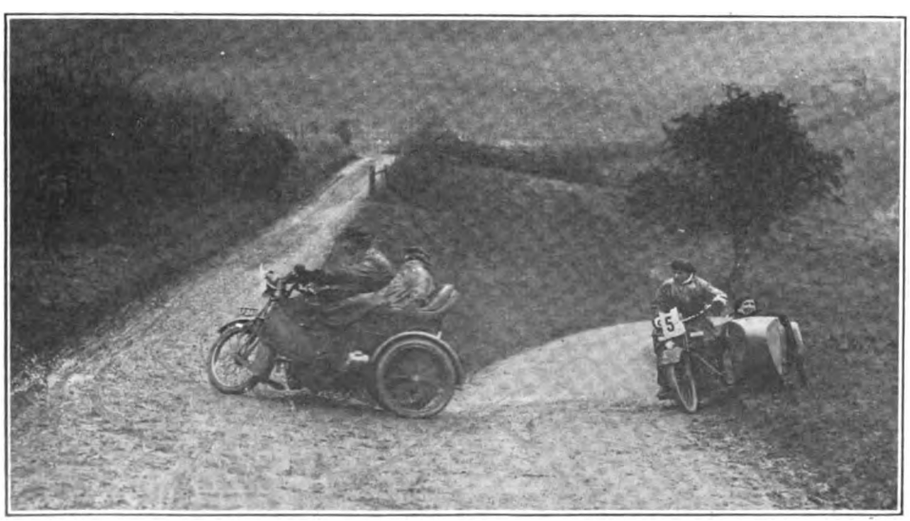
straight, steep grade with deep cartwheel ruts; this was Ludeley, an easy climb, provided one kept the middle track. Getting into one of the ruts meant disaster, of course. I must mention that the Indian simply streaked up these hills, but the rider was unfortunate in getting a fouled plug on the way home.

The latter two tests accounted for a considerable number of failures. We were now heading for Cheltenham, the luncheon stop, and a two-hour rest. In the afternoon ride came the dreaded Rising Sun hill and the above-mentioned hairpin turn. The hill proved a steep gradient with water gullies running across it and a surface of stones several inches deep. The gullies prevented the riders from rushing the hill, and as a result the successful ones were few. The writer made a satisfactory climb, passing heavy-powered machines on the hill, and thus demonstrating the flexibility of the little Douglas. Then came the hairpin bend, and more riders lost marks. As we neared Broadway on the return trip rain was pouring down and the ascent of Willisey proved a trial indeed.

I was very unfortunate, for after gaining full marks on every hill and at the hairpin bend I got into trouble by having a drop of water on my spark plug a few miles from home. This put me out of the competition as thoroughly as if I had failed on every hill. Nevertheless, I enjoyed the trial and considered it real sport from end to end. I earnestly wish that more lady riders would interest themselves in competitive events, as well as pleasure riding, but always, let me add, on open frame machines.

I understand that you have no motorcycle model designed for feminine riders at present, and this is something of a surprise to me. With the excellent roads near your large cities, and even in some quite out-of-the-way places, one would expect to find hundreds of ladies driving their own machines and entering the club runs. Obviously, the lady rider needs a light machine, but one with sufficient power so that she will not be getting into trouble on every little grade. I should think your manufacturers would find this branch of the trade worth attention and that the clubs would take steps to offset the prejudice which they tell me still exists in some quarters in America against ladies riding solo machines. We no longer hold such an impression over here and there is no reason why American riders, traditionally progressive, should frown upon the feminine enthusiast who wishes to pilot her own mount.

In future articles in these columns I hope to throw considerable light on the most advantageous methods to be pursued by the lady enthusiast in selecting her mount, equipping it and operating it in all kinds of weather. You will hear from me frequently.



Sidecar outfits on a tricky turn in a downpour of rain.

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CALIFORNIA HIGHWAY

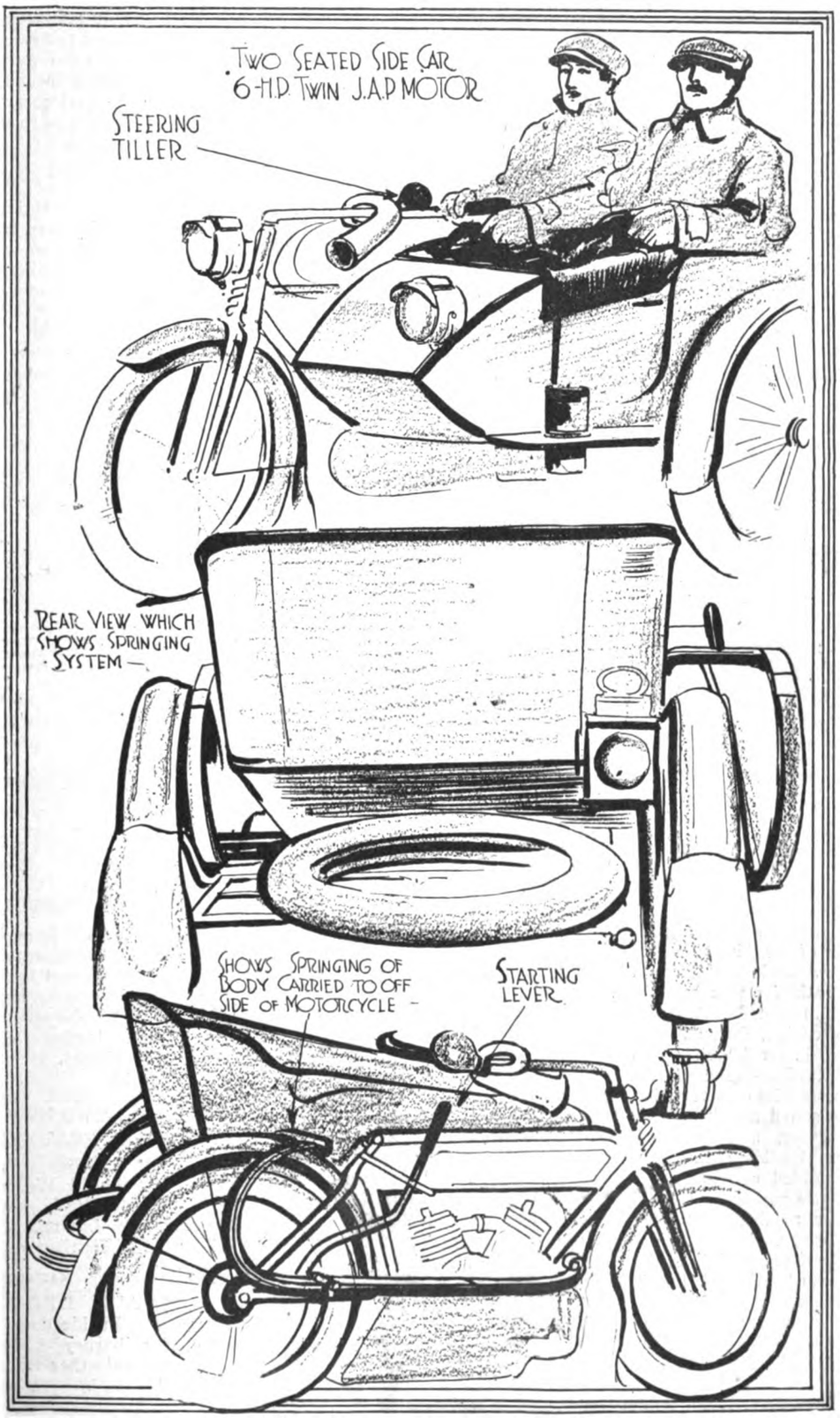
IN solving the problem as to how to spend most satisfactory the $18,000,000 in highway funds at its disposal and to build roads totalling 2,700 miles and have them ready for travel at the opening of the Panama Exposition, the California Highway Commission has decided upon nine main routes. These routes are: 1, San Francisco to Orelan line, 421 miles; 2, San Francisco to San Diego via Los Angeles, 582 miles; 3, Sacramento to Oregon line, east side of river, 344 miles; 4 Sacramento to Los Angeles via San Joaquin Valley, 445 miles; 5, Stockton to Santa Cruz via Oakland, 133 miles; 6, Sacramento to Woodland Junction, 20 miles; 7, Tehama to Benicia, 191 miles; 8, Hopland to Vallejo via Lake County, 107 miles; 9, Los Angeles to Riverside, 46 miles. These standard roads will have a right of way of at least 60 feet and will be as direct as possible between points. The gradients will not be over 7 per cent. and the curves not less than 50 feet in circumference.

FOREIGN TOUR

PREPARATIONS for a six-months' tour of the Old World are being made by Walter S. Tripp, of Sioux City, Iowa. He will leave his home on May 7 and ride cross country to New York, from which point he will ship to Liverpool. He expects to cover practically all of the European countries, and will ride a 1913 model Indian 7. His equipment will consist of Tucker wood rims, Diamond tires, electric lights, clock and Stewart speedometer. Tripp had leather cases made to fit the Indian carrier. He will carry three inner tubes, a camera, extra parts, tools, clothing and a silk tent. In addition to these he will carry Weed chains and an extra casing and will have two casings expressed ahead.

TREIBLER BROTHERS, of 105 Grove avenue, Yale and Excelsior agents at Elgin, Ill., have built a speedy motor bob-sled.

IN the sketches below are shown three views of an interesting English attachment which provides for the operation of a motorcycle from the sidecar. It will be noted that the car is designed to carry two people and that its springing system extends over the motorcycle and makes a compact outfit.



SIDECARS IN NEW ENGLAND

FROM B. A. Swenson, Indian agent at Providence, R. I., and one of the best known dealers in the East, comes the report that sidecar sales in his district are highly encouraging. Swenson is an experienced sidecarist himself and is well fitted to demonstrate the possibilities of the third-wheel pasenger attachment. During the week of February 17 he sold six sidecars, two Indians, two Millfords, one Majestic and one Universal, the latter a $125 model. Swenson has placed orders with the different manufacturers for fifty sidecars, and he is confident that there will not be one of them left at his headquarters when the the riding season is a month under way.

Reports from other points in New England indicate that this section of the country is taking a keen interest in sidecar developments, and that it is likely to become a popular stamping ground for sidecar enthusiasts.

A BUSY CLUB

A MEMBERSHIP contest is being carried on by the Broome County Motorcycle Club, of Binghamton, N. Y., the winner of which will receive a single cylinder motorcycle of a standard make. The club is also conducting a series of hill-climbing contests and road races. The racing committee is planning to have a number of Saturday afternoon races on the club's half-mile track.

The 1913 staff of officers of the Binghamton club are: President, L. M. Clark; vice-president, A. Pratt; secretary, E. Sirowatker; treasurer, S. Oftering, and captain, J. Braies. The club cordially invites all touring riders that pass through Binghamton to visit the club headquarters, and assures them a good time.

MOTORCYCLISTS in and about San Diego, Cal., are enthusiastic over an announcement made by Jack Prince that he is to build a track there.

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MARYLANDERS LAUNCH STATE BODY

BALTIMORE, Md.—As a result of the visit of J. Leo Sauer, chairman of the Legal Action Committee of the F. A. M., to this city several weeks ago, a meeting was held at the rooms of the Maryland M. C. Wednesday, March 12, at which a state organization was formed.

Officers and commissioners for various towns in the state were named, but plans for the state convention and meet were left over for another meeting. The meet will probably be held in the western part of the state, at which time officers for all the towns and cities in Maryland will be selected, as well as delegates to the national convention. The meet will be a big affair, as there will be track races, economy contests and hill climbs with the best riders in the state as contestants.

The officers of the state organization are: William Wood, F. A. M. state commissioner, chairman; Henry H. Hickman, secretary; Frederick L. Shaffer, chairman legal action committee; Nelson Johnson, chairman good roads and highway committee; Hames Basilicata, chairman tour and run committee; G. W. Hess, Union Bridge, chairman membership committee. Local commissioners were appointed as follows: H. C. Frankforter, Manchester; J. L. Frankenfield, Cockeysville; Clinton Wolff, Taneytown; G. B. Schnepfe, Havre de Grace; Benjamin G. Foaxall, Cumberland; W. F. Stealer, Jessups; W. E. Baker, New Windsor; G. W. Hess, Union Bridge. These men will go to work at once in their towns and cities to form organizations which will work with the state body in promoting motorcycling and looking after the interests of all the affiliated F. A. M. riders in the state.

A COLLECTOR'S MILEAGE

HARRY A. ROBERTS, of Portland, Ore., a collector for the New England Telephone and Telegraph Company, has used a motorcycle in his work for the last three years. In that time he has covered 21,000 miles. The machine used was a 4 h. Indian, 1910 model.

GRAVES IN HOSPITAL

JOHN U. CONSTANT, the Brooklyn speedster, has received a letter containing the announcement that Marty Graves fell during a dirt track race at Santa Ana, Cal., recently and broke several bones in his left foot. It is expected that he will be laid up for at least a month.

CLAIMS 400 M. P. G.

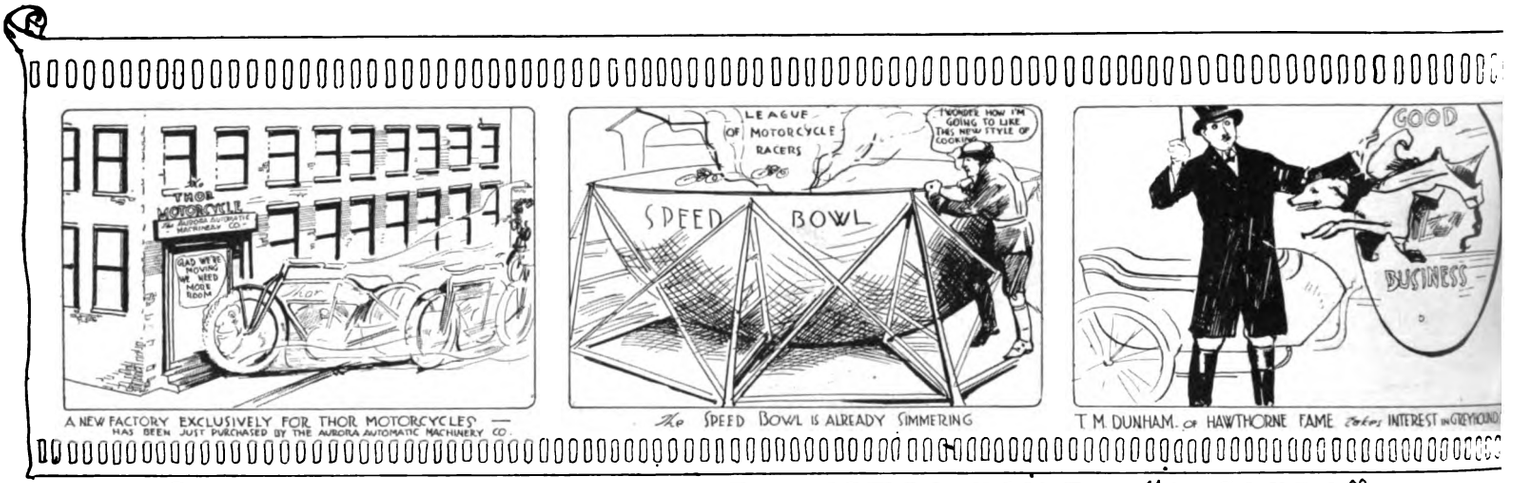
AN English exchange reprints a paragraph from the Southland *Daily News* of New Zealand, to the effect that a local rider there has perfected a device for obtaining an enormous saving in fuel on a motorcycle or other motor propelled vehicle. Riding a 2½ h. Torpedo Precision motorcycle in the presence of a committee, the inventor of the device reeled off ten miles at the rate of 22.85 m. p. h. on a consumption of gasoline equivalent to 355.5 m. p. g. Later, it is stated, the rider used kerosene as fuel and covered five miles on a basis of 400 miles per gallon. The English journal states that an additional advantage claimed for the device is remarkable flexibility, but that details as to construction and operation are lacking.

THE "FRA" A YALE RIDER

ELBERT HUBBARD, the philosopher and writer, has become a motorcyclist. "Fra Elbertus" purchased a two-cylinder Yale recently, and has become one of the most enthusiastic riders east of the Mississippi.

NEW CANADIAN CLUB

A NEW motorcycle club has been formed in Saskatoon, Sask., Canada, and will be known as the Saskatoon M. C.



A NEW FACTORY EXCLUSIVELY FOR THOR MOTORCYCLES — HAS BEEN JUST PURCHASED BY THE AURORA AUTOMATIC MACHINERY CO.

THE SPEED BOWL IS ALREADY SIMMERING

T. M. DUNHAM, OF HAWTHORNE FAME, TAKES INTEREST IN GREYHOUND

OUR OWN FILM OF MOTORCYCLE "MOVIES"

RECOVER STOLEN MACHINE

QUICK action on the part of Eugene Coughlin, manager of the Riverside Motorcycle Garage, of New York, enabled him to pursue a motorcycle thief and recover a stolen machine. Coughlin and H. A. King were going over to Tottenville, Staten Island, from Perth Amboy, N. J., on March 12, to call on agents for the Reading-Standard machines, and on the ferry got into conversation with a young man who stated that he rode a similar machine. D. Beyer, a New York rider, had had a green Reading twin stolen early in January and needed certain repairs on it, and the young man's mount, as he told Coughlin, needed similar repairs. He stated that his machine was brown.

The two parted at the ferry, and Coughlin and King rode on toward Midland Beach, when the same young man suddenly emerged from a side road on a green machine and opened up. Coughlin, with his suspicions aroused, gave chase and finally the thief came down in a mud hole, but arose and fled to a nearby wood where he was soon lost to sight. With the help of some laborers the machine was lifted out of the hole and placed on a wagon. Upon examining the motor, the number corresponded to that of Beyer's stolen machine. It was turned over to its delighted owner that same night. An alarm has been sent out for the thief.

RAY PECK AND SHAW MEET

THE events made up a program of the recent race meet held at Association Park, Redlands, Cal. A match race between Ray Peck, of San Bernardino, and Roy Shaw, of Redlands, was the feature event. Other riders from Los Angeles, San Diego, Santa Ana, Riverside and San Bernardino participated in the meet. The track was in fine condition and the meet was well attended.

TO VISIT STATE CAPITALS

ROBERT H. GIBBONS, of 371 Fulton street, Brooklyn, New York, plans to visit every capital city in the United States on a motorcycle trip. He will be accompanied by a tandem passenger.

EXPORT STATISTICS

FIGURES from the bureau of statistics show that motorcycles to the value of $223,257 were exported from the United States during the six months from July 1, 1912, to January 1, 1913. The number of machines shipped was 1,246. During December 186 machines were sold abroad, the total value of which was $32,623.

TWO NEW BOSCH AGENCIES

E. A. FEATHERSTONE, 1018 South Main street, Los Angeles, Cal., and the firm of Sallou & Wright, of 817 East Pike street, Seattle, Wash., and Seventh and Oak streets, Portland, Ore., are recent additions to the list of distributors of Bosch products.

MANAGING AUTO RACERS

PAUL DERKUM bulletins from the Pacific coast that he is booking races for Barney Oldfield, Teddy Tetzlaff and several other well-known automobile racing drivers in addition to staging a few motorcycle races now and then.

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WASHINGTON STATE OFFICERS

MOTORCYCLISTS of Washington are among the latest to perfect a state F. A. M. organization. At a meeting held last week officers were elected as follows: C. J. Ritchie, 608 L street, Hoquiam, state commissioner; Leon McNeal, Aberdeen, state secretary; E. P. Miles, 304 East Fourth street, Olympia, legal action; Thomas Hastings, 2428 Simpson avenue, Hoquiam, membership; Eveart Lobdell, 209 West First street, Aberdeen, roads and highway improvement; E. W. Morningstar, East Wishkah street, Aberdeen, competition and touring.

MISS WOODMAN IN HOSPITAL

MISS "CY" WOODMAN, who for some months has been riding toward the Pacific coast, on her New York to San Francisco tour, was taken suddenly ill with appendicitis at Trinidad, Col., and is now in a hospital there. Miss Woodman left New York on a Flanders machine, and has been making steady progress westward in spite of severe falls and other setbacks.

A VARIETY OF ROADS

A 260-MILE endurance run covering both level roads and mountain highways, will be held by the San Jose (Cal.) Motorcycle Club early in April.

BOARD TRACK RACING LEAGUE

WITH a view to systematizing board-track racing and avoiding the complications that have been encountered by track owners from time to time a number of well-known promoters met in Cleveland, Ohio, about a week ago and formed the American League of Motorcycle Racing Clubs. The purpose of the League is stated officially as follows:

"To organize the sport of motorcycle racing upon board tracks with a view to its perpetuation, by surrounding it with such safeguards as will warrant public confidence in its integrity and methods, and by maintaining a high standard of skill and sportsmanship in its riders; to protect the property rights of those engaged in the sport as a business without sacrificing the spirit of competition; to promote the welfare of motorcycle riders as a class by developing and perfecting them in their profession and enabling them to secure adequate compensation for expertness; to adopt a uniform code of legislation for the general conduct of motordromes and riders."

The League will include every motordrome in the Middle-Western states, according to the announcement, and several that are to be built this spring. These include the following: Chicago Stadium Motordrome, located at Riverview Park; Cleveland Motordrome, located at Luna Park; St. Louis Motordrome, located at Priester's Park; Detroit Motordrome, to be built; Cincinnati Motordrome, to be built at Lagoon Park.

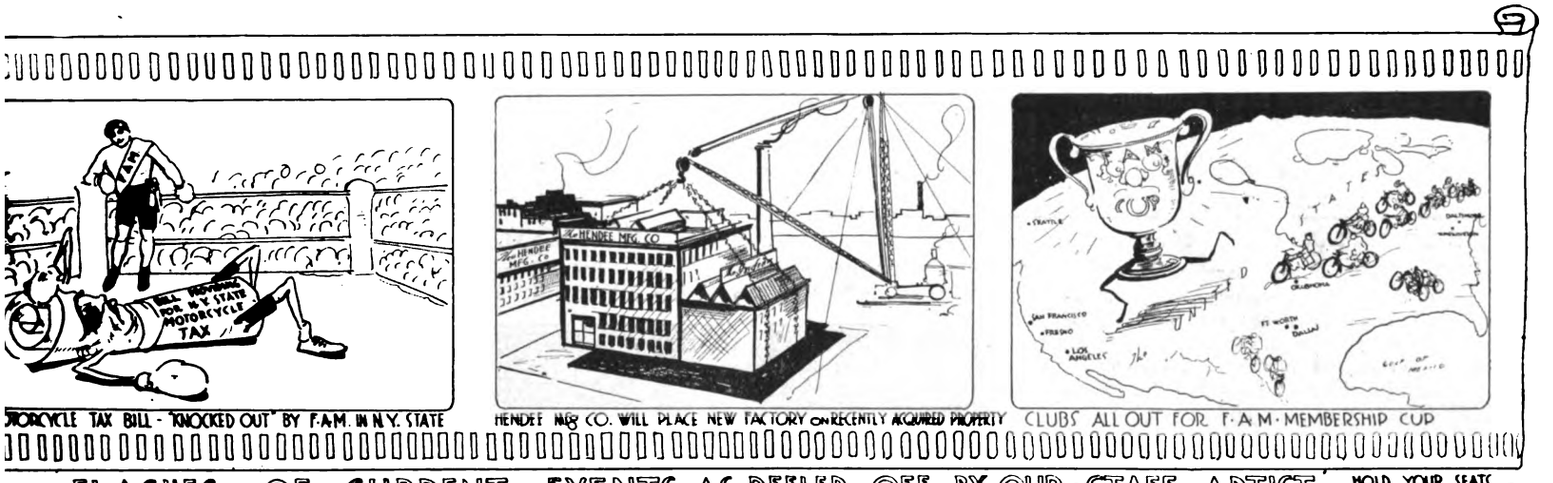
The officers of the American League are: M. F. Bramley, president; J. H. Smith, secretary; Jake Mintz, treasurer; J. H. Rush and Chas. P. Salen, managers; L. J. Mueller, mechanical superintendent. Riders and others desiring information may address Chas. P. Salen, 303 Cuyahoga Building, Cleveland, O.

GREENFIELD RIDERS ELECT

OFFICERS of the newly organized Greenfield Motorcycle Club, of Greenfield, O., have been elected as follows: President, A. Rosberry; vice-president, C. I. Page; road captain, Oscar B. Turner; secretary, Alan H. Sawyer, and treasurer, Dr. F. Wr. Steadman. The club now has a membership of twenty-five and plans for sociability and endurance runs have been made.

SALT LAKE M. C. RUN

ABOUT fifty members of the Salt Lake City (Utah) Motorcycle Club recently participated in a 100-mile run to Grantsville.



MOTORCYCLE TAX BILL - KNOCKED OUT BY F.A.M. IN N.Y. STATE — HENDEE MFG CO. WILL PLACE NEW FACTORY ON RECENTLY ACQUIRED PROPERTY — CLUBS ALL OUT FOR F.A.M. MEMBERSHIP CUP

FLASHES OF CURRENT EVENTS AS REELED OFF BY OUR STAFF ARTIST — HOLD YOUR SEATS MORE COMING

SAN JOSE ENDURANCE RUN

MEMBERS of the San Jose (Cal.) Motorcycle Club participated in a 245-mile endurance race, Sunday, March 9. The course led through Pacheco Pass, in San Benito County, through Modesto around Livermore, and then back to San Jose. The club recently gave a banquet.

MEMORIAL DAY MEET

A NUMBER of open events as well as club races will be held by the National M. C., of Washington, at the Bennings Track on May 30. This is the only event of the season in which non-members will be allowed to participate, it being the club policy to hold races for its members only.

TO HOLD ANNUAL DANCE

AT the last business meeting of the Fort Wayne (Ind.) Motorcycle Club sixteen new applicants were elected to membership and arrangements were made to hold the third annual dance of the club April 2.

SALT LAKE M. C. PARADE

BY way of celebrating St. Patrick's Day members of the Salt Lake City (Utah) Motorcycle Club participated in a parade which was led by the city motorcycle police squad. Every rider and machine was decorated with green. After the parade the club gave a dance and entertainment.

AGED SIDECAR ENTHUSIAST

C. A. BRADLEY, of Shelburne Falls, Mass., who does extensive sidecarring throughout the Bay State, writes that his outfit has proven so satisfactory from a point of resiliency and comfort, that his grandmother, although 75 years old, does not hesitate to accompany him on many trips.

NEW CLUB IN MONTREAL

A NEW motorcycle club with 26 members has been formed in Montreal, Quebec. A. R. Radmore was elected president; W. J. Ahern, vice-president; A. J. Wilson, secretary; G. H. Knott, treasurer, and W. L. McLean, will have charge of road events.

TO PROTECT MEMBERS

A REWARD of $25 is offered by the National Capital M. C. for the arrest and conviction of any person stealing or maliciously damaging a member's machine. This is offered in addition to the $25 given by the F. A. M. for the recovery of a stolen machine, as all members of the Washington club belong to the F. A. M.

NEW ROOMS CHOSEN

THE National Capital M. C., of Washington, has voted to rent new club rooms at 938 N street N. W. It was suggested to raise the dues to fifty cents per month, but this was temporarily voted down.

MEMBERS of the Arrow Motorcycle Club, Inc., of Hudson County, N. J., made a run to Greenwood Lake March 16. Road Captain Leo Herzig was in charge.

TEN motorcycles have been purchased by the United States Reclamation Service, of Phoenix, Ariz., for the use of the canal superintendents and engineers.

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FROM TAMPA TO JACKSONVILLE

Tampa Motorcyclist Makes Report on Trip That Was Featured by Heavy Going Through Sand Patches and Water.

DR. L. M. ANDERSON, of Tampa, Fla., recently accompanied a party of motorcyclists who made a trip to Jacksonville, and throughout the journey the doctor made notes of road conditions with a view of assisting other riders who might desire to cover the same route. His report on the highways between Tampa and Jacksonville indicates that the route followed provided considerable hard going, especially in the way of sand. Dr. Anderson's statement is as follows:

"Our party left Tampa early in the morning for Brooksville. The roads between Tampa and Brooksville are anything but good. They are sandy and hilly with some water. The real trouble, though, is the lack of road signs which resulted in our being lost on numerous occasions and doing a lot of unnecessary traveling. The information given by the natives along the route is absolutely unreliable. We got on the right road about fifteen miles from Brooksville, and had no further trouble.

"From Brooksville to Floral City the going is fairly good, and you have a good hard road for three miles out when you run into the sand again for about three miles, then on a hard road into Inverness and a beautiful road from there into Dunnellon, twenty-seven miles. For ten miles out from Dunnellon the road is graded, but bad in some places. On the crest of a hill you find a good hard road that leads to Ocala, about twenty-five miles. From Ocala to Gainesville the going is fairly good, though rather rough and rutty in places. It is about forty-seven miles between the two places. From Gainesville to Waldo, twelve miles, the road is graded sand, but there is no water. From Waldo to Starke, fourteen miles, the roads are very bad; lots of water and mud. From Starke to Middleburg is mostly very deep sand, with some water. From Middleburg to Orange Park I would advise tourists to keep off the graded road, It is very soft and this was the only place we bogged good and proper, requiring the efforts of the three to get one machine out of the mire. About five miles from Orange Park you find a graded sand road, which is fairly good. This road takes you on through Orange Park to the Duval county line, where you find a fine brick road right to Jacksonville, via Ortega and Riverside.

"To those contemplating the trip I would say that we learned in Jacksonville that the roads would have been better had we gone via Palatka and St. Augustine, but as most of the information we had on the trip was misinformation we had to find out for ourselves. Might also add that the Goodyear signs are a great help in following the right road and don't see why more of the route is not posted in this way, particularly between Tampa and Brooksville."

NEWS OF COLUMBUSITES

COLUMBUS, Ohio.—The Twyman Motor Car Company, 264 North Fourth street, has taken the central Ohio agency for the Pennsylvania line of motorcycle and automobile tires.

The Barr Motorcycle Company, of East Gay street, has received its first carload shipment of 1913 Indians.

In addition to the Emblem and Henderson, which the firm handled last year, the American Machine Company, 338 North High street, has contracted with the Miami company and will also handle the Flying Merkel.

Kienzle Brothers, of 844 West Broad street, have taken the central Ohio agency for the Jefferson. Previous to this time the Jefferson machine has not been represented in the Buckeye Capital.

Motorcycle dealers of this city participated in the Automobile carnival which was held here last week in place of the annual automobile show. Among the agencies participating in the carnival were: Barr Motorcycle Co.; Franklin Cycle & Supply Co., agent for the Excelsior, Reading-Standard and Yale; L. P. Birkenbach, Thor and Pope; P. I. Haynes & Co., Harley-Davidson, and The American Machine Company, Emblem, Merkel and Henderson.

Representative Warnes, of Holmes county, has introduced a bill into the Ohio General Assembly which provides for state licensing of all motorcycles at a fee of $3.

COOLEY IS GENERAL MANAGER

SAMUEL M. COOLEY has been appointed general manager of the Presto-O-Lite Company, of Indianapolis. Mr. Cooley has been connected with the company for several years, and for the last two years has been assistant general manager.

PLANS are under way to enlarge the factory of the Canton (Ohio) Rubber Company, manufacturers of penumatic tires.

BUFFALONIANS REACH COAST

HUGO A. FARGO and Harrison H. Crawford, the Buffalo attorneys who left Atlantic City last September on their cross-country motorcycle tour, have reached the coast. The trip was made on a Henderson motorcycle with sidecar. Including the weight of the sidecar, the luggage and the passengers, the machine was called upon to carry 850 pounds. The riders encountered some very rough going, but report excellent service from their Henderson. The sidecar also stood up well under the severe conditions.

TO ENTER ACCESSORY FIELD

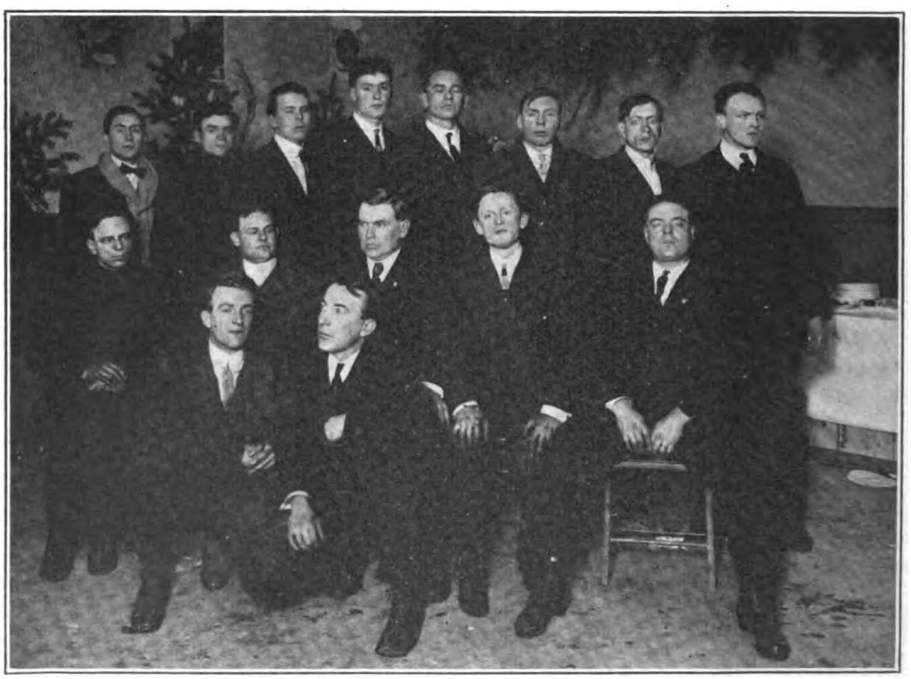
ANNOUNCEMENT is made that the Toledo retail branch of the Consolidated Manufacturing Company will enter the jobbing field at an early date, and that an attractive catalog is now being prepared. The company will carry a complete line of motorcycle accessories and Manager Harry D. Capron is making arrangements to go after new business with a wide-open throttle.

FIGHTING RUST

AN appliance of linseed oil, which forms a good skin on metal, especially on plated parts and rims, has been suggested to prevent rust. A motorcyclist who resorted to this finds it very satisfactory, and states that it is easily cleaned off.

A. L. WILSON, 408 Front street, has taken the Baltimore agency for the Iver-Johnson motorcycle, and A. Trust Poehlmann, of the Coles Sales Co, is to handle the Schickel line in the Monument City.

IT is reported that John E. Hogge, of Urbana, Ohio, has accepted a position with the Hendee Mfg. Co., as a foreign representative.



A NUMBER of motorcycle enthusiasts of the northwest appear in the accompanying photograph. From left to right those standing are: W. Hodecker, R. Heath, D. F. Bryer, A. H. Rasmussen, P. L. Abbott, V. G. Carlson, H. J. Farnham and L. Simon; sitting, R. W. Brown, A. Dunnegan, E. L. Moore, W. Brush, and C. Howard; front, D. Harry and H. E. Mead. The photo was taken at an organization meeting held recently in Portland, Ore.

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TO HAVE FOUR-STATE RUN

BALTIMORE, Md.—Plans are being laid by the Maryland M. C. for a four-state tour on May 30, the decision to hold one being arrived at during the meeting of March 12. The course to be covered will be about 250 miles, and the contestants will have to finish inside of twelve hours. The start will be made at 6 o'clock in the morning, and a stop for dinner at noon will be made at Hagerstown. Secret checking places and controls will be arranged, so that the boys will not be able to speed over the course. Howard A. French, chairman of the committee in charge of the event, is determined not to have the entrants turn the tour into a road race and thus get motorcyclists in general in bad repute. A twenty-mile an hour gait will be maintained, and prizes will be offered to those who make the best time and finish inside the limit.

Three routes were suggested, but the one decided upon is as follows: Baltimore to Frederick, Harpers Ferry, Berryville, Winchester, Martinsburg, Hagerstown, Waynesboro, Gettysburg, Littletown, Westminster to Baltimore. The route to be traversed will take the riders over roads in Maryland, Virginia, West Virginia, and Pennsylvania. The roads on this course are generally good.

YALE BULLETINS

ONE of the latest features of the broad-gauge advertising campaign that is being waged by the Consolidated Manufacturing Company, of Toledo, is the distribution of slips duplicating telegraph forms and carrying bulletins received from riders relative to unusual achievements of Yale machines. W. B. Tully reported to the home office from Chattanooga, Tenn., that his Yale had climbed Missionary Ridge and Lookout Mountain without difficulty, starting on the clutch on some of the stiffest grades, and this information is now going broadcast on the tidy little first cousins to telegraph blanks.

BIG EASTERN SHIPMENTS

H. L. PETERS, of 330 Pearl street, Buffalo, N. Y., and Alexander Klein, of 2204 North Broad street, Philadelphia, Pa., Harley-Davidson dealers in their respective cities, have recently received carload shipments of the Milwaukee machines. Reports from the factory are to the effect that eastern business is more active than ever before, and the fact that dealers have begun to receive their machines by the carload indicates that these conditions are likely to continue.

IN NEW PLANT APRIL 1

THE Prest-O-Lite Company will move into its new building at the Speedway on April 1, leaving the present office and factory rooms on East Georgia street. An automobile and accessory industrial center has been built up at the Speedway and the Prest-O-Lite plant is a substantial addition to it.

NEW CANTON COMPANY

CANTON, Ohio.—The Harper Tire & Rubber Company has been incorporated with a capital stock of $400,000, to manufacture and deal in automobile and motorcycle tires. The incorporators are: Warren D. Harper, James Thomas, Albert H. Vayo, Byron B. Baughman and Carroll B. Bour.

During the past month the Elmira (N. Y.) M. C. has enlisted 26 new members.

N the accompanying photograph appear two of the 1912 Indian machines used by Uncle Sam in the Philippines. The picture was taken at Samar, 400 miles from any repair shop, and the machines have not yet given trouble. These machines are used by the engineer corps, and have covered 6,800 miles over the uncertain Philippine roads.

"E. & C." SPRING TANDEM

MOTORCYCLISTS who carry tandem passengers find much to interest them in the product of the E. & C. Manufacturing Company, Filbert and Fifty-second street, Philadelphia, Pa. The "E. & C." spring tandem, which is termed by the makers as the "Acme of Perfection," is stanchly built with comfort the chief aim of the producers, and on this score they are convinced that they have achieved their goal. A Mesinger Standard No. 4 saddle is used and both compression and recoil springs are fitted. The tandem is constructed of cast steel fittings and heavy-gauge tubing, and is strongly reinforced at the vital points. The outfit is of nickel plate finish, is equipped with handlebars and pedal foot-rests, and is listed at $16.

BAILEY ON GOODYEAR STAFF

I. R. Bailey, formerly manager of the mechanical goods department of the Diamond Rubber Company, has recently been appointed manager of the mechanical goods department of The Goodyear Tire & Rubber Company, Akron, Ohio. During his 25 years in the rubber business Mr. Bailey has acquired a host of friends and the entire trade recognizes him as a leader in his line.

ADJUSTABLE-GAP PLUG

ONE of the most interesting motorcycle accessories to come to light of late is an adjustable-gap spark plug, now being placed on the market in England. In this plug the points may be set while the engine is firing, and should the plug become fouled with soot an adjustment may be made to remedy the difficulty. On a machine that gives trouble in starting the points in the new plug can be set close together to facilitate starting and then opened to meet requirements after the motor is running.

The main electrode can be rotated eccentrically to enable it to be handled without the rider receiving an electrical shock and terminates in a cap of insulating material with a knurled edge. A graded scale provided with a small pointer indicates the position of the electrode, and stops are placed to prevent the main electrode from turning completely around. It is stated that the gap can be varied from seven to fourteen thousandths of an inch.

MANILA CLUB HAS HOME

FROM Squires, Bingham Company, Manila, P. I., comes the announcement that the motorcycle club organized some time ago in Manila has rented a fine club house and that systematic plans are under way to boom the interests of the motorcycle in the islands. The Squires, Bingham Company handles motorcycle and bicycles in addition to a large assortment of sporting goods and clothing.

JEFFERSON AGENTS AT NEWARK.

TO accommodate a variety of tastes in motorcycles, Watson J. Kluczek, of 54 William street, Newark, N. J., has taken on the agency for the Jefferson in addition to the Emblem and Harley-Davidson machines. Kluczek's "suburban" branch is at 301 Valley Road, West Orange, where a complete line of auto and bicycle supplies is kept.

TO WARN FRENCH RIDERS

STEPS are being taken by the Touring Club of France to reduce the danger that confronts the motor tourist on French roads at the present time. Many of the main thoroughfares are crossed by railways over unprotected grade crossings, which constitute a real danger to the motorcyclist. The Touring Club has drawn the attention of the authorities to the matter and all the grade crossings are to be properly marked by warning signs at least 200 yards from the danger point.

MOTORDROME COMPANY INCORPORATES

INCORPORATION papers have been filed by Charles P. Salen, Jake Mintz, L. J. Mueller, J. H. Smith, M. F. Bramley, H. J. Conover and J. H. Bush for the Cincinnati Motordrome Company, of Cincinnati. The company has a capital of $15,000.

CARRY ARMY MOTORCYCLES

THE latest models of army automobiles built for the German army are fitted with side pockets, in each of which is carried a motorcycle for use in emergencies.

A NUMBER of motorcycle enthusiasts of Tarrentum, Pa., and neighboring towns in the Allegheny valley, recently formed the Tarrentum M. C. Howard Robinson was elected president, and C. C. Bichl, secretary.

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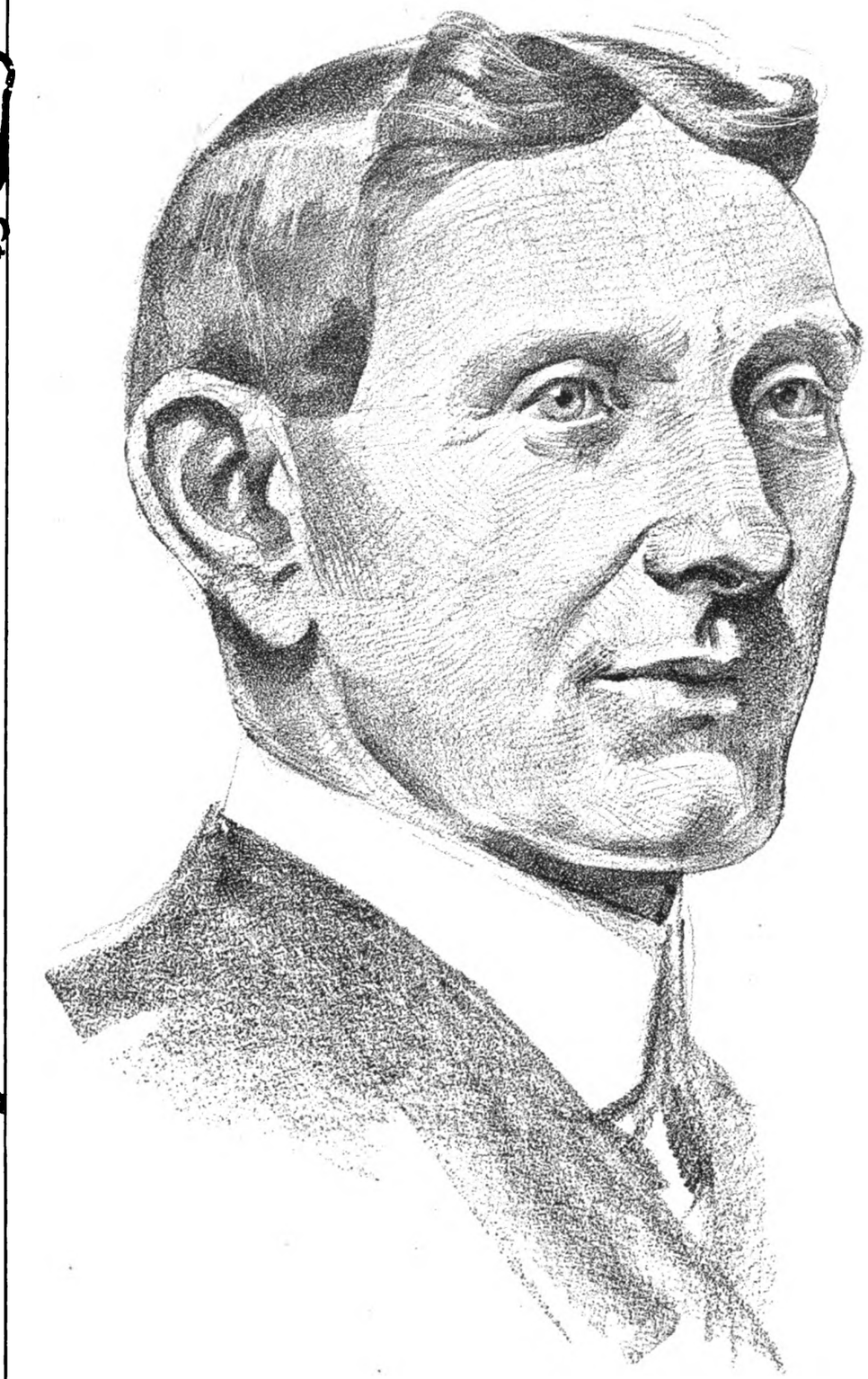

LUCIUS M. WAINWRIGHT

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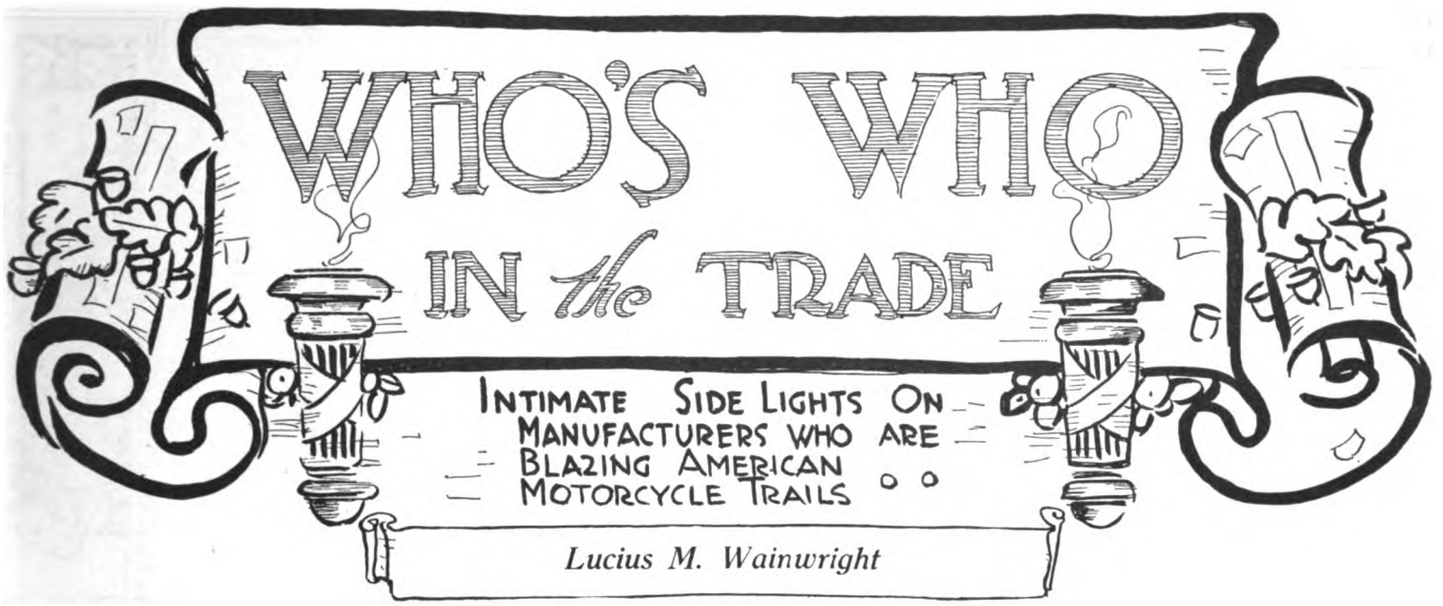

IF Lucius M. Wainwright, of Indianapolis, had not been sufficiently foresighted and progressive to make the most of every opportunity in his early life a heavy percentage of American motorcyclists might be confronted today by the problem of getting over the roads without a transmission agent—for Mr. Wainwright is the man who made the organization that made the factory that makes Diamond chains, and according to late reports these products are found on more than half the motorcycles in use in this country. True enough, these motorcyclists might have equipped their mounts with belts, or with chains of another make, but for the purposes of this article it is to be assumed that they would not have done anything of the kind; that they would have stood about railing against fate—with their motors churning futilely—unable to get anywhere, because Lucius Wainwright hadn't made chains for them. That would have been a pretty serious state of affairs, and it follows naturally that the story of how it was avoided is of considerable interest.

Lucius Wainwright was born in Noblesville, Ind., January 4, 1860, and is therefore entitled to recognition as a full-fledged Hoosier. His early life was spent on a farm—and today the farm is proud of it. He tinkered about between school and odd jobs for quite a while after reaching the school age and continued to grow, as boys will, even on a farm. Finally he developed to the point where he made trips to Indianapolis and other neighboring points of interest, and on a certain fateful day he became interested in a bicycle. In a short time he bought one, and it was then that the first work was done on the foundation for the business now handled by the Diamond Chain and Mfg. Company. Young Wainwright soon figured in the bicycle racing game and held his own with the cracks of the day. Even yet he harks back to memorable occasions on which he had for track opponents such racing pioneers as George Hendee, Oscar Hedstrom and Zimmerman.

GETTING A START IN BUSINESS.

In time Wainwright tired of racing and devoted himself to trick bicycle riding, visiting the street fairs and other amusement places and startling the natives with stunts that were then looked upon as superhuman. Young Wainwright established an agency for bicycles in Shelbyville in 1879 and rode all over the State taking orders. His was the second bicycle in Indiana, and he is still a bit proud of the fact. Before taking to the bicycle he had given some attention to the three-wheelers, but they did not measure up to what he believed a pleasure vehicle should be, so that most of his enthusiasm was held over for the bicycle. Wainwright's generalship began to show itself when he organized the Indiana division of the League of American Wheelmen during the year in which he opened his bicycle agency. He made satisfactory progress during his racing and exhibition tours and gave up about five years to this work.

Finally he returned to Shelbyville, where he went into the bicycle business on a larger scale. Three years later—in 1889—he decided to spread out a bit and accordingly he moved to Indianapolis and organized the Central Cycle Mfg. Company, which produced the well-known brand of Ben Hur bicycles. He conducted this business for nine years, and then retired from the company to take an interest in the Indianapolis Chain and Stamping Company, which was organized in 1890, with Mr. Wainwright as manager. He remained in this position until 1905, when he formed the present Diamond Chain and Mfg. Company, which bought out the Indianapolis Chain and Stamping Company. The plant was from the first devoted exclusively to the manufacture of block and roller chains, and at present the motorcycle line is one of the most important on the company's list.

DEVELOPING THE BIG PLANT.

Mr. Wainwright was drawn into the motorcycle naturally, as so many other veteran bicycle men have been. It was a short step from riding bicycles to making chains for them, and an equally short step from bicycle chain to motorcycle chains. Over 400 mechanics are now employed in the big Indianapolis plant of the Diamond company, and it is one of the largest in the country. While Mr. Wainwright is kept pretty busy as president of the company, he finds time to display unusual interest in the progress of his son, Guy A. Wainwright, who occupies the office of vice-president. Not content with sending his son through Purdue University, one of the best known engineering schools in the West, Mr. Wainwright has just had the satisfaction of seeing him complete a post-graduate course in mechanical engineering at Charlottenburg, Germany. Having laid the soundest kind of a foundation for his work in the interests of the Diamond company, Guy Wainwright is now at the plant and making every move count. In addition to being vice-president he carries the title of Efficiency Engineer.

Lucius Wainwright is probably better known throughout the accessory and parts industry than in the motorcycle field, for in the former he has been honored frequently with offices. He is now serving his second term as president of the Cycle Parts Association, and he is also treasurer of the motor and accessory manufacturers' organization. In Indianapolis Mr. Wainwright is on several important committees of the local business clubs and organizations, and he is recognized on all sides as a result-getter. It is not likely that Mr. Wainwright has a hobby worthy of the name today—for he no longer rides two-wheelers—but he has a distinct liking for Southern trips during our bleak Northern winters, and he is rarely to be found in Indianapolis during February and March. For example, if you wanted to tell him just at present the precise degree of satisfaction derived from a Diamond chain on your motorcycle you would have to jump to Florida to do it. He has been there for several weeks past.

NEW LAW ADOPTED

INDIANAPOLIS, Ind., March 12.—A new law has been passed by the legislature here, which just finished its sixty-days' session last Monday, providing for a state license of $2 for all motorcyclists. It also provides for eliminating all local licenses and taxes. Heretofore the riders have been forced to pay a state tax and a city tax, besides the one dollar fee they paid for the life of each machine. These taxes amounted to as much as $5 in some cities, and the new law permits material saving. President O. F. McClain, of the Indianapolis Motorcycle Club, is responsible for the new law.

The new law also abolishes all local speed limits under ten miles an hour, and states that only one light need be carried upon the machine at night. The law as originally proposed provided for two lights.

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ECLIPSE

The Brake You Can Trust

More than one hundred square inches of braking surface!

A square inch for every 3½ lbs.

What more positive assurance of ABSOLUTE SAFETY can the rider require than the knowledge that his brake is stronger, proportionately, than the most powerful automobile brake made?

Figuring the average machine and rider to weigh approximately 350 pounds, that allows a square inch of braking surface for every 3½ pounds weight. No automobile brake made is proportionately as strong as the Eclipse Perfection Multiple Disc Brake.

This brake differs is design from previous Eclipse Brakes, in fact it is different from any other brake yet made.

The Brake operates on the multiple-disc idea, similar to the Eclipse clutch. The discs are mounted on one side of the hub, instead of inside it. There are six discs 5¼ in. in diameter.

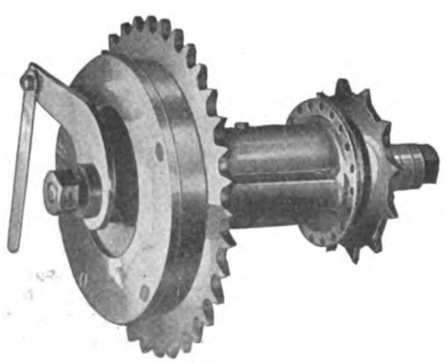
The bearings contain ⅜-inch balls. Lubrication is a matter that will require little attention, for the hub can be packed with hard oil at the start of the season and this supply will last the entire year.

The Ideal Brake for Sidecar Riding

The great working surface and simplicity make this brake fine for heavy service, such as sidecar work. No matter what momentum the outfit may attain, the Eclipse can and DOES absolutely annul the most terrific speed and brings the machine to a quick halt.

Dealers should stock heavily.

Eclipse Machine Company



Elmira N. Y. U. S. A.

H. T. ROBERTS, Selling Agent, Railway Exchange Bldg., Chicago

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MOTORCYCLE ILLUSTRATED

Published every other Thursday at 51 Chambers Street, New York. Home subscriptions, $1.00 a year; foreign, $2.00; 10 cents a copy.

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J. LEO SAUER, President.
H. N. CONDICT, Secretary.

WESTERN REPRESENTATIVE:
HARRY G. JACOBS
1220 First National Bank Building, Chicago. Telephone 5908 Central.

CIRCULATION THIS ISSUE MORE THAN 14,000 COPIES.

IMPORTANT.

OWING to its large circulation, it requires two full days of 24 hours each, after the last form has closed, to print, bind and mail a full edition of MOTORCYCLE ILLUSTRATED. In view also of the fact that this publication is read in more than 2,400 different cities, towns and villages in the United States, its wide distribution demands that each issue be placed in the mails not later than noon every other Thursday, the date of publication. In order to make the mails at this time, forms must close not later than 6 p. m. Tuesday, and advertising copy cannot, therefore, be handled if received later than Tuesday morning.

RECEIPT OF TEXT MATTER.

This applies also to text matter. Photographs should reach us not later than Monday morning preceding each date of issue. They will be given better attention if reaching us the Saturday preceding.

CORRESPONDENCE.

MOTORCYCLE ILLUSTRATED requires correspondence and subscription agents in many towns where the paper is not already so represented; we pay a liberal commission to subscription agents, and the best space rates for text-matter, drawings and photographs.

PHOTOGRAPHS.

Drawings, photographs and manuscript not suitable for publication will be returned if sufficient stamps are enclosed for the purpose. In every case, photographs should be plainly marked, so that they may be properly identified.

ADVERTISING SERVICE

DIOGENES is credited—or discredited—with living in a tub (when he was not Sherlocking up and down the countryside with a lantern in his search for an honest man), and as a result he is still being talked about. Had he proclaimed his doctrine of simplicity from the housetops—and eschewed his tub—few of us would know today how to spell his name. Diogenes knew the value of an illustration. He knew that well-worded arguments do not always carry themselves, that we must have an idea so presented that it hooks itself in our memory. He desired to be known as a man of the utmost simplicity; hence his tub.

In the presentation of an advertising argument folks aim to convey an idea so strikingly to a reader that it will step out, so to speak, and tap him on the cerebellum the instant he finds himself in need of a product in their line. But all ideas are not tappers. Some don't make good. Distinguishing the workers from the shirkers is a fine art, and that is why the Advertising Service Department of MOTORCYCLE ILLUSTRATED *devotes ten hours a day to the task. It is the aim of this Department to handle your advertising copy so that the idea you mean to convey will strike home—and stick around until it delivers the goods. This is the only paying policy.*

EDITORIAL VIEWPOINTS

REPORTS from Albany that the New York State legislators have seen fit to give the proposed motorcycle tax bill its quietus will naturally be received by machine owners with rejoicing, but their satisfaction over the successful outcome of the present protest should not lull them into the belief that further vigilance is unnecessary. As a matter of fact, motorcyclists of the State should always be ready to answer a hurry call to arms. Objectionable regulations applying to the motorcycle may at any time be couched in a general motoring law, and only constant watchfulness can prevent the adoption of harrassing measures under the guise of needed legislation.

IN connection with the tax provision that has just been disposed of, it is worthy of note that few, if any, of the lawmakers knew the full import of the bill as applying to motorcyclists. They were surprised and favorably impressed by the magnitude of the movement started by the F. A. M. Legal Action Committee in opposition to the contemplated measure, and pledges were quickly forthcoming that the riders of the State would not be interfered with at this time. A continuance of this businesslike attitude on the part of the F. A. M. and its riders in New York State—and elsewhere—will work wonders.

A BIG FIELD FOR DELIVERY VANS

LATE developments indicate that automobile manufacturers have keen eyes on the parcels post field and that in many quarters special efforts are being made to adapt four-wheelers to the new requirements of the postal authorities. This is a cue that should not be overlooked by motorcycle van builders. It is obvious that there will always be districts in which an automobile truck cannot be operated economically for parcels post deliveries, and it is into this breach that the motorcycle van can work its way most effectively. Hundreds of post offices, some of them in bustling cities, do not handle enough parcels post matter to justify the use of a truck, but they feel the need of a vehicle that will cover the ground rapidly with a reasonable load. Motorcycles with van attachments are already filling the bill in a number of cities, but the movement is young. New ideas in van construction are needed and a lively spirit of co-operation with the postal officials is essential. Uncle Sam has the money and we have the motorcycles and the vans. Let's talk things over and get down to business.

BOARD TRACKS AND THE LEAGUE IDEA

THOUGHTFUL followers of motorcycle racing on board tracks view with some uneasiness the plans now being developed by promoters to systematize the handling of riders by operating on a circuit basis, in view of the fact that it is a comparatively easy step from the circuit policy to hippodroming, and from that to the waning of public interest in the sport. It is not to be inferred that the organization of squads of paid riders to appear on a circuit of tracks necessarily predicates an unfair attitude on the part of promoters, or that races cannot be honestly contested under such conditions of management, but simply that the odds are against the upbuilding and maintenance of a desirable sporting spirit under these circumstances.

IN baseball alone has the league system given full satisfaction, primarily because the game itself is not easily susceptible to juggling and because each player feels the need of putting forth the best that is in him on all occasions, regardless of whose feelings and interests may suffer in the outcome. The baseball-loving public sits in judgment upon him and he dare not go wrong. As long as the racers employed by a league of board tracks work along the same lines there can be no objection to the circuit idea, but that they will be hedged by many and serious temptations cannot be denied.

THE SPIRIT OF THE F. A. M.

"I FIND that the sport suffers its greatest abuses in localities where there is no F. A. M. representation," Bulletins Director Sauer, from the southwestern leg of his transcontinental lecture tour. "Where there is a good club and where the F. A. M. is in favor you will invariably find among motorcyclists a decent regard for the rights of others."

HEREIN is embodied one of the most significant tributes that could be paid to the national organization. Without regard for the rights of others no motorcyclist can hope to be a factor in the upbuilding of the sport, and those who do not upbuild, tear down. We do not believe any motorcyclist would deliberately place himself in a position detrimental to the interests of his fellow riders, but that some machine owners do this through indifference cannot be denied. That such riders are found where there is no club or F. A. M. representation simply emphasizes the time-worn argument that little can be achieved without organization.

THE motorcyclist who allies himself with a club finds himself taking pride in the standing of his squad. He is moved to defend it against unjust criticism and to assist in warding off such criticism by keeping his own actions above reproach. The outcome is a greatly improved standard for motorcyclists in the district in which the club operates. When the club in turn pools its interests with those of the national governing body its scope is broadened, there is a keener appreciation of the responsibilities that devolve upon it and the upward movement is continued. It follows that there can be no reasonable argument against the club, and certainly none against the club's affiliation with the national body that has for its sole object the advancement of the sport in which all are concerned. It is saying much for the F. A. M. that its influence breeds "a decent regard for the rights of others." Let the breeding go on.

IN NEXT ISSUE

Hard facts you ought to know about oils—how to buy them and how to use them most advantageously.

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TOLD AMONG FRIENDS

WHEN I MEET A CHEERY HELP-FUL WORD IN MY TRAVELS . . . I WELCOME IT, GIVE IT A COMPANION- IF I CAN AND PASS IT ON. . . .

Carlyle

GASOLINE FROM KEROSENE

EDITOR.—If you will oblige us, we would be glad to have information on the following: We purpose heating kerosene in a closed vessel free from air, and while in this heated condition force hydrogen gas into the vessel. Will this make the kerosene into gasoline? Will the hydrogen gas combine with the kerosene and remain combined after the mixture has cooled down? Hydrogen is easily and cheaply made; on this point we have positive knowledge, but we are at sea as to the comoining action of the kerosene and hydrogen gas.

Saratoga Springs, N. Y. C. J. CHURCH & SON.

(We fear that you would not have the success you hope for. Gasoline has approximately the formula C_7H_{16}, and kerosene is $C_{12}H_{26}$, or thereabouts. The C represents the carbon, and the H the hydrogen in the theoretical formulae given above. But kerosene has been distilled from crude petroleum *after* gasoline has come off, and a further distillation would give a lubricating oil with a residue or paraffin wax. The distillations are made under heat, also. Now, taking kerosene and heating it with hydrogen sent in as a gas, the result would be that there would be given off a part of the hydrogen from the kerosene, and the carbon and remainder of the hydrogen of the kerosene would tend to separate until the heat was great enough. At that instant the chances are that the vessel would open, and disaster follow.

But should the heat not be carried so far as that just mentioned, if the resulting series of gases and liquids were drawn off, you would get a large volume of hydrogen, a compound high in carbon and low in hydrogen and carbonic acid gas. The hydro-carbon compound would be valueless as fuel and as soon as cool, become weaker in hydrogen. The carbonic acid gas (CO_2) would be of no use in your motor, as it is a product of combustion, and the hydrogen could not be used on account of the danger. Hydrogen flames are propagated faster than any pi ton can move, and the cylinder head would probably go. If you let the whole cool the result would be: kerosene and hydrogen in slightly different quantities, and your attempt would be practically useless.—Ed.)

HINTS FOR ADVERTISERS

EDITOR.—I am a steady reader of your paper and a conscientious one, I believe, and in view of my interest in it I am going to presume upon your good nature to the extent of offering a suggestion. I am well satisfied with your editorial features, as a rule, but I find that in many cases the advertisements do not give me the helpful information I desire. More than once of late I have become interested in an advertisement in your pages, only to find that the manufacturer or jobber had not embodied sufficient information in his ad to let me know whether the fitting in question would meet my needs. It may be suggested that I should write for a catalog, and that trade journal advertisements are not intended to tell the whole story of a product. I make allowance for these facts, and still argue that the advertiser should aim—even in a small ad—to tell what his product will do and whether it is adaptable to all types of motorcycles.

At a glance it may seem that all advertisers do this, but I have found that they do not. They take too much for granted. Being fully acquainted with their product they assume that the reading public must know something about it, too, and here is where they err. The product may be quite well known, but there will always be readers who are not in possession of the most elemental points concerning it. Perhaps I am a plain "kicker," but I believe it would be a mighty good thing for advertisers to embody all the practical information possible in their ads. I don't feel like writing for a catalog unless I am reasonably sure that a product is going to be adaptable to my machine, and I believe there are many others in the same boat. BROOKLYNITE.

The above photograph is of unusual interest as showing the neatness with which a capacious van body may be attached to a light motorcycle. It is forwarded from London, where merchants are working out the van idea along the most ingenious lines. The picture shows that the van is cut away over the axle and that the load is carried well forward.

TWO-SPEED GEARS.

EDITOR.—I noticed a letter in the February 6 issue of your valued journal relative to two-speed gears and signed "F. W. V.," and would like to obtain additional information from this rider. Please forward my name and address to him with the request that he furnish me with further details or advise me as to where I can purchase the two-speed device he refers to. I will deeply appreciate any assistance he can give me.

GEORGE B. LEWIS.

24 Chestnut avenue, Dansville, N. Y.

EDITOR.—In your last issue you printed a letter from some one signing himself "F. W. V.," and this rider talked about a two-speed gear which I would like to have. Maybe you can help me to find out where this two-speeder was bought. It would be just the thing to put on my 1912 Indian twin. He goes too darn fast in places where it is not fit to ride fast, and I need something to handle the speed better. After reading the letter of "F. W. V." I think he can help me out. WILHELM NELSON.

La Conner, Wash.

EDITOR.—Will you be kind enough to give me information concerning the two-speed gear mentioned in the letter of "F. W. V." which appeared in your issue of February 6. It strikes me that this gear will meet my needs and I would like to know where it can be obtained. A. E. OBERMAN.

1302 Washington street, Kansas City, Mo.

[We regret that the full name and the address of "F. W. V." have escaped us and that it is impossible to communicate directly with this rider for the benefit of the readers whose letters appear above. We trust, however, that "F. W. V." will come to the assistance of these seekers for information and instruct them as to where his two-speed device was obtained. We shall be glad to give space to another letter from "F. W. V." in our March 20 number.—Ed.]

TIP FOR BELT USERS.

EDITOR.—I am a regular reader of your magazine and also an enthusiastic rider, and I am deeply interested in the motorcycle "kinks" you publish from time to time. I have one which I think may help some of the boys who use belt-drive machines, and I submit it for what it is worth. If a rider has trouble with pulley lagging slipping I advise him first to put on about two or three layers of friction tape such as is used by electricians. I have been doing this for some time past and find that my pulley tape never slips and that it lasts considerably longer. For pulley lagging I use tire fabric. W. H. KUTSCHER.

610 East Market street, Bloomington, Ill.

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CAMPHOR AND NAPHTHALINE

EDITOR.—The articles on Fuels, written in your columns, and in the trade journals in general, are most interesting to those who see no prospect of a reduction in the prices of gasoline, and no kerosene carbureters in sight. But have we considered camphor as a "mixer" with gasoline? I know of at least one series of experiments made by a brother rider in England, and feel that his results might be of some interest.

Putting in one pound of camphor in five gallons of gasoline he got a saving of 30 per cent. in fuel consumption and a slight reduction in the amount of carbon deposited. This proportion seems to be the only one suitable, as one pound to four gallons resulted in very poor running. Note that the Imperial gallon was used; this would mean a pound of camphor to six United States gallons. The camphor was obtained in square blocks about an inch each direction, and thus was easily absorbed in the gasoline.

Naphthaline, wrongly called "camphor balls," but containing no camphor at all, is a coal-tar product, and can be used as follows: Heat the balls in a closed chamber or box by means of the exhaust gases and a gas will come off. This gas is mixed with air in an ordinary carbureter and used like gasoline. The prospect of having a heating chamber the size of a shoe box might not appeal to most riders, but it may come to this some day. Let us hope not. Experiments with this fuel were started in Germany in 1908, and made in this country in 1909, but that was about as far as it went. With both fuels mentioned, a larger jet opening is the main adjustment as compared with the use of gasoline, and most motorcycle carbureters can accomplish this by turning the jet valve.

PEARSOL SERGENT.

A GARDENER'S LETTER

EDITOR.—My business as gardener and general caretaker of private residences calls for a great deal of personal and immediate attention, and I found it impossible to accomplish this to my own and customers' satisfaction without something better to ride than an ordinary bicycle, so I bought a Pope motorcycle, Model H, which has given me great satisfaction, and the machine is in every way as represented by the company.

I have covered about 3,000 miles from May up to the 24th of December, riding in all kinds of weather, and the machine today is practically as good as new. During this season it has not given me any trouble of any kind, neither engine, magneto nor carbureter. It is light in weight, easy to operate, economical in gasoline (I have covered 290 miles with five gallons), and any man who can ride a motorcycle can easily adjust and repair a Model H.

I have not paid out over $3 for sundries, and that includes one spark plug. As for speed I find it fast enough both for business and pleasure. On one occasion I rode over 145 miles of hilly roads, passing through towns and cities where speed laws must be obeyed. On another occasion when necessity called for it I covered 16 miles in 20 minutes.

There are plenty of larger and faster motorcycles, I know, good for pleasure but, in my opinion, not so well adapted for business, as they are too heavy and the machinery too complicated.

Anyone who cannot afford or has not the time to take care of an automobile should own a motorcycle, as it increases business and you can give it closer attention with less expense than anything else I know of. In previous years I have employed 12 to 14 men—this summer I kept 18 and 20 with less personal effort than ever before.

Hartford, Conn. ROBERT WALGREN.

ADDRESS WANTED.

DITOR.—On November 17, 1912, the writer met a fellow motorcyclist named Fink while on a trip through Philadelphia. This rider showed me into the city and to the hotel where I wished to put up for the night, and gave me much general information of value. He acted the part of a gentleman at every turn, and when we parted we exchanged names and addresses—orally. There's the hitch. I have forgotten Mr. Fink's address and would like to get into communication with him. Neither of us had a card or a pencil when we parted and we were unable to make notes. However, I am deeply appreciative of the assistance rendered me by Mr. Fink and trust this letter will reach his eye so that he may write me.

Lancaster, Pa. DANIEL B. FLORY.

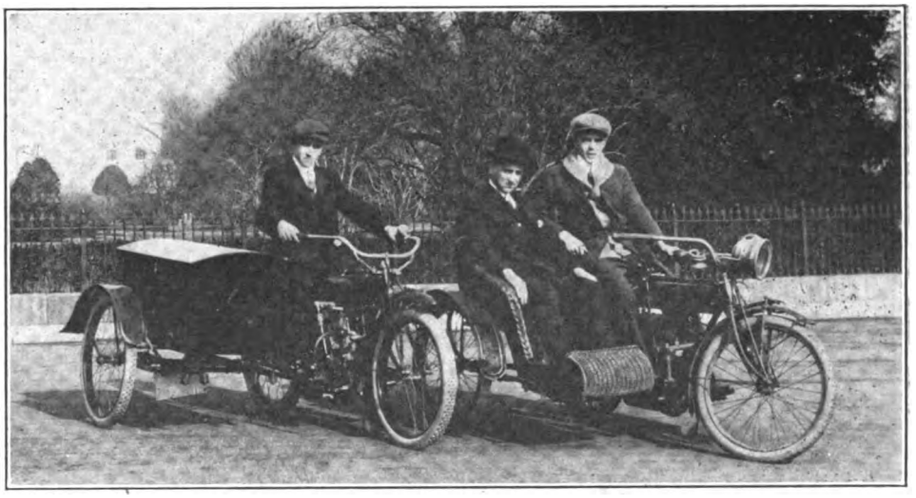
A FRIEND OF THE TWIN.

EDITOR.—From time to time I notice in your magazine hints submitted by different riders and I have found some of them quite helpful. By way of reciprocating I would like to turn in two ideas that I have worked out successfully. The first concerns a luggage-carrier which I have made from short sections of iron pipe and which is strong enough to permit of carrying a passenger on it. As will be seen from the sketch the carrier can be made in any size desired. Mine cost $2.40, including the tap and die used in the operation.

The second idea is not brand new, but I think it is worth mentioning in view of the fact that comparatively few riders know how easily it can be carried out. It provides for hinging the rear mudguard between the two rear braces. This hinge arrangement is very simple and I must say I have found it a great convenience in making tire repairs on the road.

I see by the February 20 issue that Morgan Douglas wants a small twin. As most singles are of four or five horsepower I think he should find one of these to satisfy him. I prefer a higher powered machine. In this case the throttle is used on hills with the machine on high gear, whereas with the mount of less power the low gear is used (if the machine has one), or the throttle is opened still wider, so that it seems to me the gasoline consumption is about even. I also find the extra weight of the higher powered machine of value on rough roads.

Kittery Depot, Me. ALLEN B. LEWIS.



C. S. French, Indian agent in Washington, D. C., is seated in the sidecar. Mr. French is now a full-fledged sidecar enthusiast and a strong booster of commercial vans.

CROSSING THE BORDER.

EDITOR.—In reading Mr. Helm's account of his motorcycle trip from "Finlay to the Falls" in your February 20 number, I was much surprised to learn that he and his partner were given a discomfiting reception by the Canadian customs officials. Being along the border here and having crossed numberless times with a motorcycle and sidecar without trouble from American authorities, either at Buffalo or the Falls, I certainly think the same courtesy should be extended to our American cousins. I know that hundreds of Buffalo and Falls motorcyclists cross to the Canadian side daily in the summer months without putting up a deposit, and I am therefore unable to understand why Mr. Helm had so much trouble.

This is a matter for the C. M. A. to take up and I have drawn the Secretary's attention to same and asked him to get information from headquarters at Ottawa, and if motorcyclists are not afforded the same privileges as automobilists to bring pressure to bear so that such restrictions will be removed.

S. D. DUNN,
Welland, Ont. Vice-President Welland M. C.

THE REFEREE'S TROUBLES

EDITOR:—To set at rest the ideas of those who may envy the position of an official F. A. M. board track referee, or any others who may have a mistaken view of the duties of referees, this letter is respectively submitted by one who has been through the route. To begin with, the referee's position is far from being the soft snap that it seems to be, this official being between two fires at all times, track manager on one side and the F. A. M. riders on the other. Justice must be given each side, and on delicate questions the referee often finds himself in a most embarrassing position. Unless the very keenest knowledge is at the command of the referee, he will find himself in hot water nine-tenths of the time.

There are many duties to be performed by the referee before and after each race meet. Applications for sanctions must be made out, an entry blank must be filled in for each rider, prize money must be looked after and awarded to those earning it. For this, receipts must be taken and if any mistake has been made the referee is the one to suffer. In addition to this, complete reports must be made out by the referee for each race that has been run, and if these reports are not made out properly the referee stands a chance to pay a fine.

During the time of the races the F. A. M. referee finds many duties resting upon his shoulders. He must see that the different events are pulled off according to schedule, he must see that each rider, as well as his machine, in in fit condition to race. The referee must look after the judges, timers, scorers, etc., besides seeing to it that the clerk of the course and the starter do not start the wrong men in the races.

Crooked riding must be watched for; and at times what looks crooked to the spectators may be unintentional on the part of the rider or riders. The referee must understand all of these things, and pass judgment in such a way that no hardship will be placed on those innocent of wrongdoing. There are many cases like this which happen almost daily on all board tracks, so the reader can see for himself that it is very easy for the referee to make bad decisions, and consequently make enemies for himself.

Board track managers as a whole seem to like to keep the referee in hot water. I do not mean any manager personally, but take them as a whole. Many managers have petty dislikes against certain riders, and expect the referee to help them out by punishing these riders on all occasions. If the referee does not do this, then the rule is that Mr. Manager gets "sore" at the referee and thinks he is not getting a square deal. Some managers want to pull off special stunts to draw the crowds, and if the referee should prohibit these special features as being in direct violation of the F. A. M. rules, then he finds the manager "sore" again. So taking into consideration, do you think that the responsibility, the ease with which enemies are made, and the nerve-racking work that is done are worth the $10 daily asked for by the referee?

ONE OF THEM.

DEDGE'S EXPLANATION.

EDITOR.—It is with great pleasure that I take advantage of the opportunity offered me to explain to the local public through your columns my situation in the novelty race held at Laurel, Md., on September 25, 1912, in connection with the horse races. In this race two automobiles, two running horses, two foot runners, and two motorcycles competed in a handicap event.

The reasons to which I attribute my not winning this race are threefold:—gasoline running low, a broken porcelain spark plug, and to the fact that one of my well wishers, just before the race, in adjusting the airshutter on my carbureter broke the handle off. This party will probably remember the incident. The breaking of this handle was a very serious matter, as every racing man knows that a cold engine will need less air than a hot one, necessitating first closing the airshutter and then opening the same as we get under way. I tried to use a regular stock shutter but soon found out that it was too small, and not having time and tools to make one fit, I decided to race without it and do the best I could under the circumstances. I am willing to state under oath that the race in question was run fair and square as far as I am concerned, and that I did all in my power to win, which, as the motorcycle racing fans will admit, means quite a little.

TOMMY DEDGE.
Washington, D. C.

Three new motorcycles have been ordered for the police department of New Haven, Conn.

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LINE-UP OF "MECO" BOOSTERS

IN the accompanying photograph are shown the department heads of the Motorcycle Equipment Co., of Hammondsport, N. Y., with the exception of the Los Angeles branch manager. From left to right the "Meco" boosters are: M. F. Olcott, traveling representative; Leon Brink, chief of the order department; C. J. Ball, head correspondent; J. C. Cornell, who handles the money; W. L. Hayes, who buys the guaranteed supplies; C. L. Waters, manager; Ben L. Casterline, the man with the big job of superintending the shipping of several thousand packages a week to all parts of the United States and Canada. The stenographers and clerks were too busy to pose for the camera man.

Reports from the factory show that there is a 100 per cent. increase in "Meco" sales this spring. Three new clerks were added to the force last week to permit of living up to the slogan: "Goods shipped same day order is received," and the company is still able to maintain its excellent record in that respect.

THE "SPARK-NO" LOCK

ONE of the latest devices intended to thwart the motorcycle thief and guard against tampering with a machine is an electric lock sold under the trade name of "Spark-No," and manufactured by the Swyers & Lorch Manufacturing Company, Seventeenth and Carson streets, Pittsburgh, Pa. This lock has a dial over which two hands move, permitting of a series of combinations of figures which may be set by the owner. When the lock is arranged for service it interrupts the ignition system so that it is impossible to start the machine. It may also be connected to a bell that will give an alarm when an attempt is made to throw in the switch. When attached to a motorcycle the lock is grounded directly on the magneto, making it impossible to tamper with the wiring successfully. When it is desired to change the combination of the lock the hands on the dial are simply moved through outside knurled screws, and it is not necessary to take the device apart. The lock is light and compact, and does not detract from the appearance of the motorcycle. It lists at $4.

NEW DISTRIBUTING HEADQUARTERS

R. W. SAYRE, of the Appeal Manufacturing Company, western distributors for the Harley-Davidson and Flying Merkel motorcycles, announces that the company will open a branch in San Francisco. He recently spent a number of days in that city and secured quarters at Market and Franklin streets. He states that the new building will be the wholesale distributing headquarters of the Appeal company.

A SUB-AGENCY of the Henderson motorcycle has been placed with the Wyckoff, of Chagrin Falls, Ohio, by the K. V. Motorcycle Company, of Cleveland.

NEW PRESTO PRODUCT

A NEW product of the Prest-O-Lite Company, of Indianapolis, is Prest-O-Torch, an acetylene burning device which may be used instead of a gasoline torch. The torch itself is small enough to be carried in a coat pocket, and will be found as economical as it is handy for all ordinary jobs of soldering and brazing. The device is simply connected to any Prest-O-Lite tank, the gas is turned on and a match applied. Instantly a flame is at hand of such intensity that it is capable of heating an ordinary soldering iron in one minute. The torch proper is only half an inch in diameter, and for this reason may be used in small working spaces where the old-style torch would be of little value. The price, with two stem connections, is 75 cents.

L. P. BIRKENBACH, of North Fourth street, Columbus, central Ohio agent for the Pope, is having his store remodelled and will have more space in both his repair shop and salesroom.

A NEW VICTOR LAMP

MOTORCYCLISTS will be interested in the announcement that the Victor Auto Parts Co., of Cincinnati, Ohio, is now marketing a new lamp with a 6½-inch mirror, thus providing for a light sufficiently powerful to meet the most exacting demands of the rider. The products of the Victor Auto Parts Co. already stand high in the estimation of motorcyclists, and there are indications that the new lamp will be in great demand. The body of the lamp is stamped out of heavy brass and is riveted and soldered with such care that the company guarantees it to resist the hardest road usage. The company now has a force working night and day to fill orders. Ten different styles of motorcycle lamps are made, featured by the "Old Reliable" models that have proved unusually popular in past seasons.

MASON WITH NEW FIRM

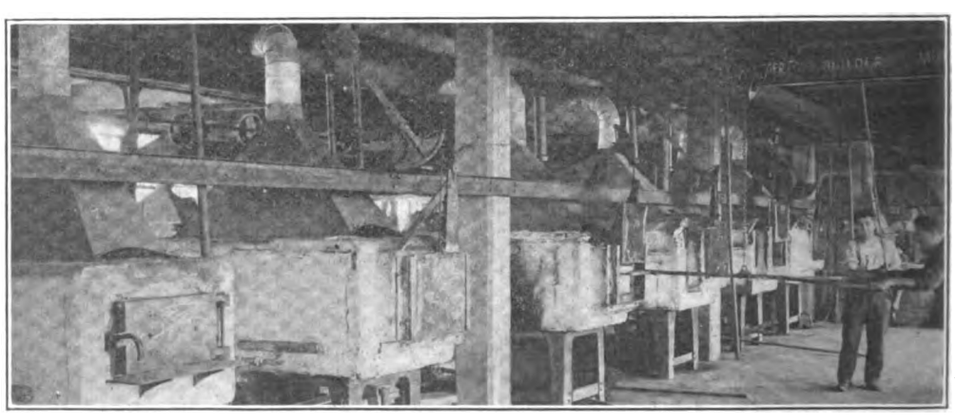
M. E. MASON, who was connected with the sales department of the Morgan & Wright company for several years and who for two years past has been identified with the Central District office of the United States Tire Company, has become secretary and sales manager of the newly organized Mohawk Rubber Company, of Akron. This firm, which is capitalized at $350,000, has bought the plant and machinery of the Stein Double Cushion Tire Company in East Akron. Only automobile products will be handled for the present, but it is intimated that the company will produce motorcycle tires when the plant is in full swing.

YALE AT TROXEL FACTORY

AN order for a 1913 Yale has been placed by the Troxel Manufacturing Company, of Elyria, Ohio, with the Consolidated Manufacturing Company, of Toledo. The Troxel company's long experience in the motorcycle business has acquainted it with the value of the single-tracker in a commercial way, and it has purchased the Yale with side-van for delivery purposes. The outfit will be used in taking goods to and from the factory of the saddlemakers.

MAJESTIC SIDECAR EXPORTS

ANNOUNCEMENT is made by the Majestic Manufacturing Company, of Worcester, Mass., that Majestic sidecars have recently been shipped to a number of foreign countries, including Central and South America and the Hawaiian and Philippine Islands. Inquiries relative to the Majestic products have been received from Sweden, France, Australia and Japan, and the company reports a steady growth in its export business.



Imposing line-up of high-efficiency furnaces at Harley-Davidson plant.

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HENDEE CO. BUYS NEW TEN-ACRE TRACT

Proposed Buildings on East Springfield Site, in Conjunction With Present Plant, Will Permit of Annual Output of 70,000 Indian Motorcycles—An Auxiliary Foundry Also Provided For.

ONE of the most significant announcements in motorcycle trade circles of late is that just made by the Hendee Manufacturing Company to the effect that additional land has been purchased which will permit of doubling the output of the big Springfield plant. The new Hendee tract is located in East Springfield, and is ten acres in extent. It is bounded by three railroads, so that shipping and receiving facilities will be ideal, and all the other conditions attending the purchase are equally satisfactory. For example, the Hendee company has bought an interest in the Harley foundry, a well-known Springfield industry, to supplement the big foundry which the makers of the Indian will erect on their own land, and the Harley buildings adjoin the newly-acquired Hendee site. This will permit of the most satisfactory arrangements for handling material between the auxiliary foundry and the proposed new buildings. The former will remain in full charge of Leon J. Harley as heretofore.

The new tract lies 500 feet back from Page boulevard, in the rear of the Harley company's foundry, and the plant of the Crude Oil engine company. Street access will be afforded over a 40-foot right of way extending back between the plants mentioned, permitting visitors to land right at the office by automobile, or within three minutes' walk from the trolley line running through Page boulevard. The property is practically level, and contains no buildings at present. At the southeast apex of the tract a common railroad siding connecting with all contiguous lines, will "pick up" the company's own private siding at the boundary line. The Hendee siding will be a quarter of a mile long, and will be protected by a fence inclosure.

Artistic cover design which is a feature of the attractive new catalog of the Black Hawk Motor Co., of Rock Island, Ill.

The first building operations projected are an immense drop forge plant in the center of the plot. This structure will be of "E" formation, one story high, and of the most modern factory construction. The frame will be of steel, the walls brick and the roof, cement, providing absolute immunity from fire risk. The area of this group, which will consist of four unit structures suitably joined to afford the highest efficiency in manufacture, will be 293 by 234 feet. The central wing of the parallel group of three will be somewhat higher than its flanking structures, giving to the whole a pleasing symmetrical appearance.

Paralleling the quarter-mile siding will be an immense storehouse for receiving raw stock. From the receiving platform the incoming material will be transported to the stock preparation room in the central section of the storehouse and distributed to its proper destination in various sections of the plant by an overhead trolley system.

The die shop will be the southwest wing of the "E" group. The central building of this group will be the drop forge shop, where an initial equipment of 20 drop hammers will be installed. This battery gradually will be increased to maximum strength, 44 hammers, giving the company one of the largest and best equipped forge plants in the country. The largest drop hammer will weigh 2,500 pounds, and the others will taper down according to the class of work for which they will be used. The third parallel wing of the group will be used for spring making and similar light manufacturing.

In the location of the initial group of buildings, provision is made for further expansion to meet future needs, and, in fact, this already is projected. Plans have been accepted for an immense machine shop, of saw tooth construction, to be erected to the north of the "E" group. The machine shop will be 300 by 175 feet, and of the most modern construction. Construction on this building will be begun immediately after the completion of the "E" group, which is scheduled to be ready for occupancy July 1. To the south of the "E" group will be erected a large heating plant. Being in urgent need of much greater blacksmithing facilities, a spacious building will be erected to take care of its requirements in this line. When all projected construction is completed, there still will be available a large amount of land for further expansion.

While these buildings will be in full operation for the 1913 season, they will but partially take care of the company's requirements for next season, so that some of the class of work to which they will be devoted will have to be handled elsewhere for 1914. When all the new buildings are in operation they will, in combination with the present factory, afford the capacity of 70,000 Indian motorcycles annually. When the East Springfield works are in operation they will give employment to an additional force of from 1,500 to 1,800 men, making a grand total of 4,300 artisans devoting themselves to the building of Indian motorcycles.

Within the past year a Canadian factory has been established in Toronto, to handle Canadian business exclusively, and no less than 2,000 Indians will be built across the border this season, although certain parts will for the present continue to be manufactured at Springfield. It is stated that Canadian orders are far beyond all previous records.

STEWART-WARNER CIRCULARS

TWO circulars now being distributed by the Stewart-Warner Speedometer Corporation, 1826-52 Diversey boulevard, Chicago, set a new mark for such literature as applied to the motorcycle field and indicate that this firm is making its appeal to riders on a broad basis. One circular, profusely illustrated and printed in two colors, takes the form of a large folder and is of such a character that it may be used for display advertising purposes by dealers. The other circular gives detailed instructions for fitting a Stewart-Warner speedometer, and is so fully illustrated that the most inexperienced motorcyclist cannot fail to proceed along the proper lines in equipping his machine with the instrument.

Another striking cover, appearing on the 1913 catalog of the Motorcycle Equipment Co., of Hammondsport, N. Y. The present season has brought a most effective array of catalog covers from the publicity men.

HUSTLING MANAGER REWARDED

IN recognition of the success achieved during 1912 by its Pittsburgh branch, the Pennsylvania Rubber Company, of Jeannette, Pa., manufacturers of Vacuum Cup Oilproof tires, recently gave a dinner to its branch manager, S. W. Lawry, and embraced the opportunity to present him with a silver cup. Incidentally, the function served to celebrate the most successful year in the company's history.

The gathering was partly a "farewell" one, for Mr. Lawry's splendid work in Pittsburgh has prompted his promotion to a larger field. He will shortly take over control of the southern territory of the Pacific coast, with headquarters at Los Angeles, where he is likely to eclipse his Pittsburgh record among the company's branch organizations for growth of business and profits.

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WIZARD TWIN HAS VALVES IN HEAD

One-piece Cylinder Construction and Interchangeability of Entire Valve Mechanism Feature New Indianapolis Product.

DESIGNED to obtain the maximum of power, flexibility and simplicity, are the Wizard twin motors, made by the Wizard Motor Co., Indianapolis, Ind. They are of the mechanical valves-in-head type and develop 10 horsepower, with a bore and stroke, respectively, of 3⅜ and 3⅞ inches. The piston displacement is 70 cubic inches, and they are adapted equally to sidecar work, solo riding and cyclecar service.

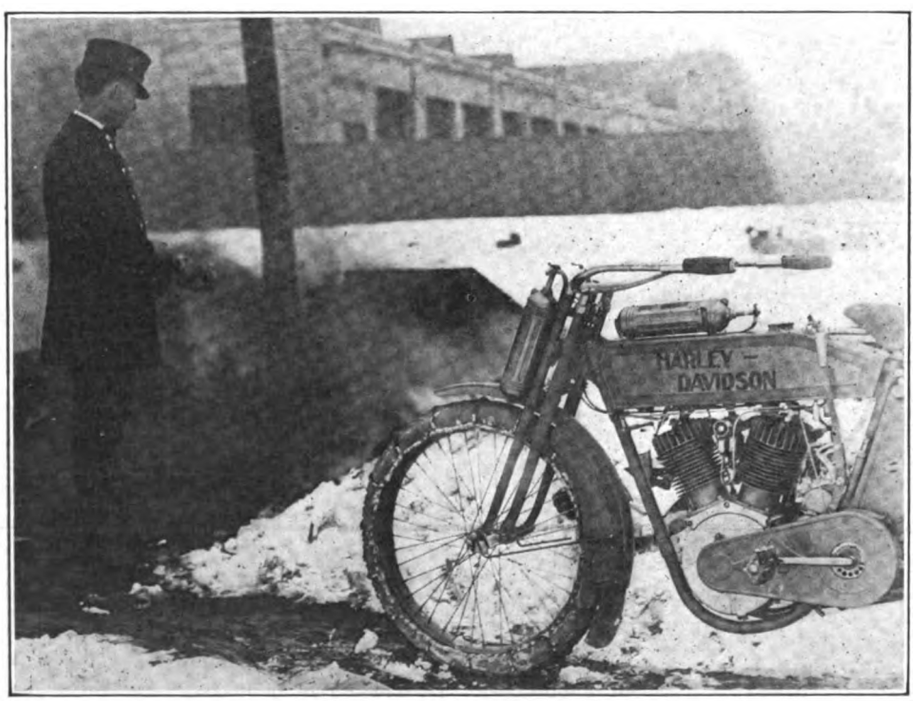
The cylinders are of first quality gray iron, and have the head and valve-pockets in one with the cylinder casting. Front and rear cylinders are similar and interchangeable, a new feature in this type of motor. The cooling flanges are scientifically designed and provide an ample surface for proper cooling under all conditions. Pistons are of the same material as the cylinders, and the rings are of the same superior quality. Oil grooves are formed in each piston to insure proper lubrication of the entire working surface.

The wristpin is of nickel steel, held in the piston so that it cannot come adrift accidentally. It moves in the bosses, but is tight in the connecting rod. The flywheel is of gray iron in one piece and is carefully balanced. The connecting rods are light nickel-steel forgings with special "non-freezing" big-end bearings. The crankcase is of special aluminum alloy, with faced joints, and an oil gauge is fitted in the left half. All gears are of chrome nickel-steel, and are jacked in before the motor is sent out, resulting in a noiseless running gear train.

One cam operates all four valves (two inlet and two exhaust), and the cam is integral with its shaft. All valves are mechanically operated and interchangeable. The springs are held on by a special method which does not involve piercing the valve-stem. The valve-operating device is direct acting and all parts are interchangeable. Oiling is by a positive-driven gear pump, the oil being sent into the camcase and front cylinder at regular intervals. Numerous oil grooves are provided in all bearings of the motors.

The bearings throughout are of special analysis phosphor bronze and oversize, giving a lifetime of at least 20,000 miles, it is stated. Ignition is by Bosch or Splitdorf armored magneto, and the Schebler carbureter is fitted. The external finish is nickel-plated with the exception of the aluminum parts which are mirror-finished.

J. L. Yarian, formerly with the Pope and Yale companies, and a designer of more than ten years' experience in gas engine work, is now identified with the Wizard Motor Co. He announces that the test motors are now ready and that it will be possible to make shipments in quantities about May 1.



MOTORCYCLE FIRE-FIGHTER

AS a result of the growing demand for motorcycles equipped with fire extinguishers, the Harley-Davidson Company has sent out a number of machines similar to the outfit shown in the accompanying photograph. Pyrene extinguishers are used because of their compactness and simplicity of operation. These outfits are to be tried out by a number of fire departments, with a view to controlling small fires.

HENDERSON IN CHICAGO

J. P. GAINER, distributor for the Henderson in Wisconsin, Illinois and Iowa, has contracted with Leo S. Bradbury, of Chicago, to handle the line in the Windy City.

LOCKNER A ROAD RIDER

SYRACUSE, N. Y.—George Lockner, who gained considerable fame last summer by winning the 24-hour race at the Brighton Beach motordrome, with Shields as his team-mate, has purchased a new machine for road use during the com-

ing season. Lockner is an enthusiastic road rider in addition to his racing activities, and never misses a chance for a long holiday tour, or a spin into the country. He has done a good deal of winter riding in Syracuse, and the neighboring country during the past month, since he got his new machine, and has become a familiar sight on the Syracuse streets while they have been covered with snow and slush.

NEW PUNCTURE-SEALER

"RUBBERSTONE" is the trade name of a new puncture-sealing compound that is being marketed by the Buffalo Specialty Company, of Buffalo, N. Y., with a view to solving some of the problems of tire users. The compound adheres to the inner surface of the tube, and when a puncture is sustained the air pressure forces the Rubberstone into the hole with such thoroughness as to obviate the necessity for further repairs. It is also stated that the compound is an excellent preservative for tires and tubes, and that its use will add materially to the life of a casing aside from the puncture-repairing process. Rubberstone is put up in handy cans.

DUNHAM IN NEW FIELD

THOMAS M. DUNHAM announces that he has severed his connection with the Hawthorne Mfg. Co., of Bridgeport, Conn., as a salesman, while retaining his stock interest in the firm, and that he has become treasurer and sales manager of the Greyhound Motor Co., of Buffalo, N. Y., manufacturer of Universal sidecars. Mr. Dunham is also a stockholder in the Greyhound company. With W. C. Chadeayne he will be engaged in the active management of the firm. W. W. Shoemaker is also a stockholder in the Greyhound company, but is not active in the management.

B. B. L. LIGHTING SYSTEM

A NEW lighting system for motorcycles attracted considerable attention at the recent automobile and motorcycle show at Dayton, O. This system was featured by the B. B. L. Company, a new firm in the motorcycle accessory line in Dayton. The company is located at 421 East Third street, and is operatetd by M. Barlow, Charles F. Budroe and Elmer M. Davis.

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NEW HOME FOR THOR MOTORCYCLES

Aurora Automatic Machinery Company Leases Five-Story Factory Building in Chicago and Looks Forward to Output of 25,000 Machines for 1914—Will be in Use Before July 1.

WITH a view to separating its motorcycle manufacturing interests from the departments devoted to the making of pneumatic tools and appliances the Aurora Automatic Machinery Co., of Aurora, Ill., has made arrangements to move its motorcycle business to a large five-story building located on the North Side, Chicago. For some time past the company has experienced difficulty in keeping abreast of the demand for its motorcycles in the somewhat limited space available at the Aurora factory, and as additional accommodations could not be provided at Aurora it was decided that the Thor motorcycles should have a factory building of their own.

The Chicago building, on which the company has taken a long lease, has over 600,000 square feet of floor space, allowing ample room for all the departments incidental to the production of the Thor machines. The Thor folks have already laid plans and placed orders for material to cover an output of 25,000 motorcycles in 1914, and the factory structure for which the lease has just been closed will permit of turning out the machines on this basis. The rapidity with which orders have piled up at the factory for Thor models of late has convinced the company that the demand for its machines may be counted upon to double before the present season is over; hence the elaborate plans for meeting 1914 requirements.

The Thor company will install a large quantity of new machinery in its new building. and special pains are being taken to arrange the various departments for utmost efficiency.

Factory Leased for Manufacture of Thor Motorcycles in Chicago, Which is to be in Full Operation Inside of Three Months.

According to present expectations the Chicago factory will be in full swing before July 1, but the moving operations will not be allowed to interfere in any way with the handling of 1913 business. The 1913 models will be turned out from the Aurora plant as at present, while the new factory will be placed in condition to handle the output for 1914. In this way there will be no hitch, and patrons will be given the usual satisfaction while the new departments are in process of equipment.

The factory management will be entirely in the hands of William Ottoway, who has been associated with the Thor company since its infancy, and who is deserving of most of the credit for the excellent machine that has been developed. Mt. Ottoway will be assisted by Mr. Greene, who will have charge of the production department. The sales will be directed by General Sales Manager E. J. Knight, who is well known to the trade as a result-getter. All in all, the Thor company feels that it is now well equipped to keep abreast of rapidly-moving motorcycle developments.

KATZMANN TANDEM CUSHION

MOTORCYCLISTS who desire to carry a tandem passenger—and there are thousands who do—will give more than passing attention to the "Easy Ride" luggage carrier cushion that is being manufactured by the William Katzmann Sons Co., of Sixty-third street and Ellis avenue, Chicago. This cushion, which is designed to combine serviceability with long life and an attractive appearance, is referred to as the seat "with the pneumatic feel." Extra long oil-tempered springs are used in the Katzmann seat to absorb the road shocks so that the tandem rider is not subjected to the annoyances encountered ordinarily. The seat is made in three styles: Grade A is covered with genuine leather, has special compound filling, oil-tempered springs with swivel bearings and is hand-made throughout; it retails at $3.50. Grade B has the same internal construction but is covered with a good grade of imitation leather; price, $2.50. Grade C differs from the others only in being covered with "Katzmann Leather." This model sells at $2.

KENTON FIRM CHANGES HANDS

HAVING purchased the business of the Kenton Motorcycle Company, of Kenton, Ohio, D. C. McBeth will handle the agency for the Thor, Excelsior and Pope lines, as well as a complete line of supplies. A repair shop will be an important feature of his business. McBeth has been in the motorcycle business for four years.

ACTIVE ST. PAUL FIRM

THE Auto Cycle Company, of St. Paul, Minn., agents for Henderson, Reading-Standard and Flying Merkel machines, has made arrangements to remodel its salesroom and extend its store so that the headquarters will rank with the best. The rear of the store will be fitted with seats, tables, electric lights and electric fans so that it will afford a comfortable haven for motorcyclists who drop in to lounge for an hour or two. The firm is also making special efforts to be of assistance to tourists during the coming summer.

U. S. TIRE MEN CONVENE

HARTFORD, Conn.—Forty-six service department heads of the United States Tire Company recently met at the Hartford Rubber Works plant for a three-day session. The object of the meeting was to discuss service in relation to tire users. Talks were given by officials of the company and the factory was inspected.

MAY HAVE GIRLS' DIVISION

IT is reported that the annual tour of the Kansas Short Grass Club, will be featured this year by a division for girls, of which Miss Inez Patterson will be captain.

A PARTY of Madera (Cal.) motorcyclists recently made a run to Raymond. The members of the Madera club were the guests of the Kerman Motorcycle Club at a dance held in Kerman a short time ago.

FRENCH SETS HOT PACE

BALTIMORE, Md.—Howard A. French & Co. has probably created a record for a single dealer in motorcycles in this country by having shipped to him three carloads of Indians inside of two months. Two weeks ago the first carload shipment of motorcycles ever sent into Maryland was received by French, and the machines were disposed of as fast as they could be unloaded. On March 15 another carload left Springfield, and on April 15 a third will be sent here from the Hendee factory. French is loaded down with orders, and feels sure that he will easily get rid of over 500 machines before the summer is over. Already he has 107 new Indians out on the roads in this state.

NEW THIEM AGENCY

MESSRS GERBER AND WINTER have opened a motorcycle store in St. Paul, Minn., and will have the agency for the Thiem motorcycle in surrounding territory. They will also handle a full line of accessories and will conduct a repair department.

YALE READING ROOM

A HANDSOMELY equipped and well lighted reading room is the latest addition to the sales offices of the Consolidated Mfg. Co., at its Toledo headquarters. Motorcycle literature of every description is supplied. This room has become very popular with the local motorcyclists, and is the means of bringing many to the Yale home.

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NEW JERSEY CLUB'S TWO-DAY GRIND

NEWARK, N. J.—At the last meeting of the New Jersey Motorcycle Club, of this city, a full report of the plans of the committee in charge of the club's two-day endurance run, which is to be held May 30-31, was submitted. They intend to start from Newark at 5.30 a. m. for Delaware Water Gap, 72 miles, and arrive there at 9 a. m. Leaving this point at 9.30 the riders will continue on to Scranton, Pa., 50 miles, where it is scheduled to arrive at 12.15, and leaving at 1.15 it will head for Birmingham, N. Y., 60 miles. The riders are expected to reach here at 4.45 and leave at 5.15 for Unadilla, 40 miles, arriving at the latter place at 7.30 p. m.

The ride to this point is expected to be the hardest stretch of the run as it will be continual hill climbing and the roads are not very good. Unadilla is fixed as the night control. The second day's riding will start at 6.00 a. m. and the first stop will be made at Kingston, 98 miles, where the arrival is set for 12.00 noon. Leaving there at 1.00 p. m. they will ride to Newburg, 30 miles. After a half hour stop they will leave at 3.00 p. m. on the last lap of the run. They are expected to cover the 65 miles to Newark in 1 hour and 35 minutes, reaching their destination at 4.35 p. m.

This run is a departure from their former 24-hour runs and will include the finest scenery in New York, New Jersey and Pennsylvania. The first day's run will be 224 miles and the second 227 miles, making a total of 451 miles. Out of town motorcyclists are invited to participate in this run, and special arrangements will be made for their accommodations.

AN ARTISTIC CATALOG

A NOTEWORTHY feature of the catalog of the Excelsior Motor & Manufacturing Company, descriptive of its line, is the fact that the machine illustrations are shown in the various colors, as they really appear on the motorcycle itself. It is said to be the only catalog illustrating the machine in this nature, and the effect is highly artistic.

WAUGHOP'S WINDSHIELD

IN the accompanying photograph C. W. Waughop, Henderson agent in St. Louis, Mo., is shown using a novel windshield of his own design. He has had it fitted to his machine to facilitate touring in cold and windy weather, and it has met all his expectations.

BALTIMORE DEALERS PLEASED

BALTIMORE dealers report excellent returns from the show which closed February 22 and proclaim it the best ever held in that city. It is stated that 100 orders were taken during the five days that the machines were on exhibition and that many prospects were lined up. August Zimmerman, of the Hendee Company, was on hand and incidentally took a carload order from Howard A. French & Co. This is the second carload order he has captured from French this year.

SECRETARY GIBSON reports the affiliation of the Ashland M. C., of Ashland, Ohio, in the week of March 15.

SPLITDORF SERVICE ABROAD

TREASURER and General Manager O. J. Rohde, of the Splitdorf Electrical Co., of New York, sailed for Europe on the *Kaiserin Augusta Victoria* recently. His trip abroad is being made for the purpose of securing a perfect service for users of Splitdorf ignition devices abroad. Accompanying Mr. Rohde is a corps of experts on magnetos, coils and ignition fitments in general, and they will be established in Europe, with London as headquarters. Their duty will be to attend to the wants of users of American cars on the other side and also to further the use of Splitdorf devices.

Mr. Rohde has systematized his New York service station to such a degree of perfection that his ideas will prevail in the working out of the details for the accommodation of European and visiting motorists alike. He will remain in Europe until the system is thoroughly established and will then return to New York to resume his former duties.

ZIMMERMAN IS BUSY

P. E. ZIMMERMAN, formerly manager of the Hagstrom Co., of Lindsborg, Kan., announces that he will devote the next three months to promoting and assisting in the management of the annual tour of the Kansas Short Grass M. C., he being secretary of the club. He will also handle the Pope motorcycle in the southeastern quarter of Kansas and expects to organize motorcycle clubs in all towns where they are not already established.

BALL-BEARING PIONEER

IN a recent mention of the Flying Merkel as an advocate of ball-bearings for the motor was inadvertently omitted. As a matter of fact, the Merkel was the pioneer motor in which ball-bearings were fitted, these being used in the connecting-rod and shaft on both sides, and the builders have consistently adhered to this type ever since. In the 1913 product the Middletown factory, the Hess-Bright ball-bearings are used, the Merkel being the only motorcycle motor fitting this make.

NEW MARION FIRM

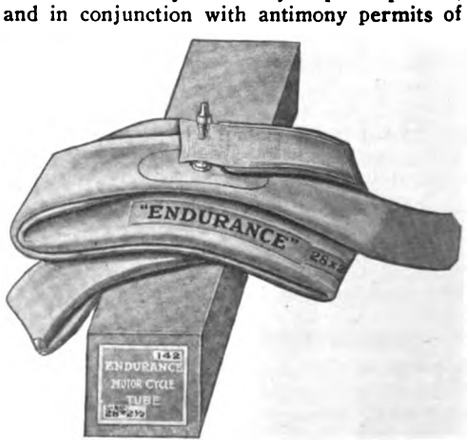
MARION, Ohio.—The Automatic Puncture Stop Co., with office and factory in this city, has been incorporated with a capital of $10,000, to manufacture a puncture repair device for automobile and motorcycle tires. The incorporators are: C. E. Merkle, M. McKinstry, A. C. Queen and E. A. Eibling.

HUNTSBERY'S TRIP

HERBERT H. HUNTSBERY, assistant sales manager for I. H. Silsby, of Cleveland, Ohio, distributor for the Flying Merkel in Northern Ohio, appears in the accompanying photograph. When the picture was taken Huntsbery had just completed a ride from Cleveland to the Merkel factory at Middletown, which he made solely for the purpose of testing the 1913 Merkel over severe roads. His route was through Elyria, Oberlin, Norwalk, Bucyrus, Marion, Columbus, Springfield and Dayton, and he encountered snow and ice and plenty of mud. He experienced no mechanical trouble throughout the trip, but broke a pedal when he slid on some ice near Bucyrus. He covered 338 miles and made the trip in 15 hours and 10 minutes.

ENDURANCE TUBES

REPORTS received by the Fulton McCutchan Co., 1146 Michigan avenue, Chicago, sole distributors for Endurance red inner tubes, are to the effect that these products are giving exceptional returns in hard service. The Endurance Tire and Rubber Co., of New Brunswick, N. J., manufacturers of Endurance tubes specializes on their production and keeps in mind the unusual requirements of motorcycle work with the result that a remarkably durable tube is being marketed. Endurance tubes are made of the best grade of rubber, combined with enough toughening material to make them withstand hard usage. The rubber is scientifically treated by a special process, and in conjunction with antimony permits of better vulcanization and allows the tube to be more easily patched in case of a puncture. The Fulton McCutchan company has for some time past found Endurance tubes among its most satisfactory sellers.



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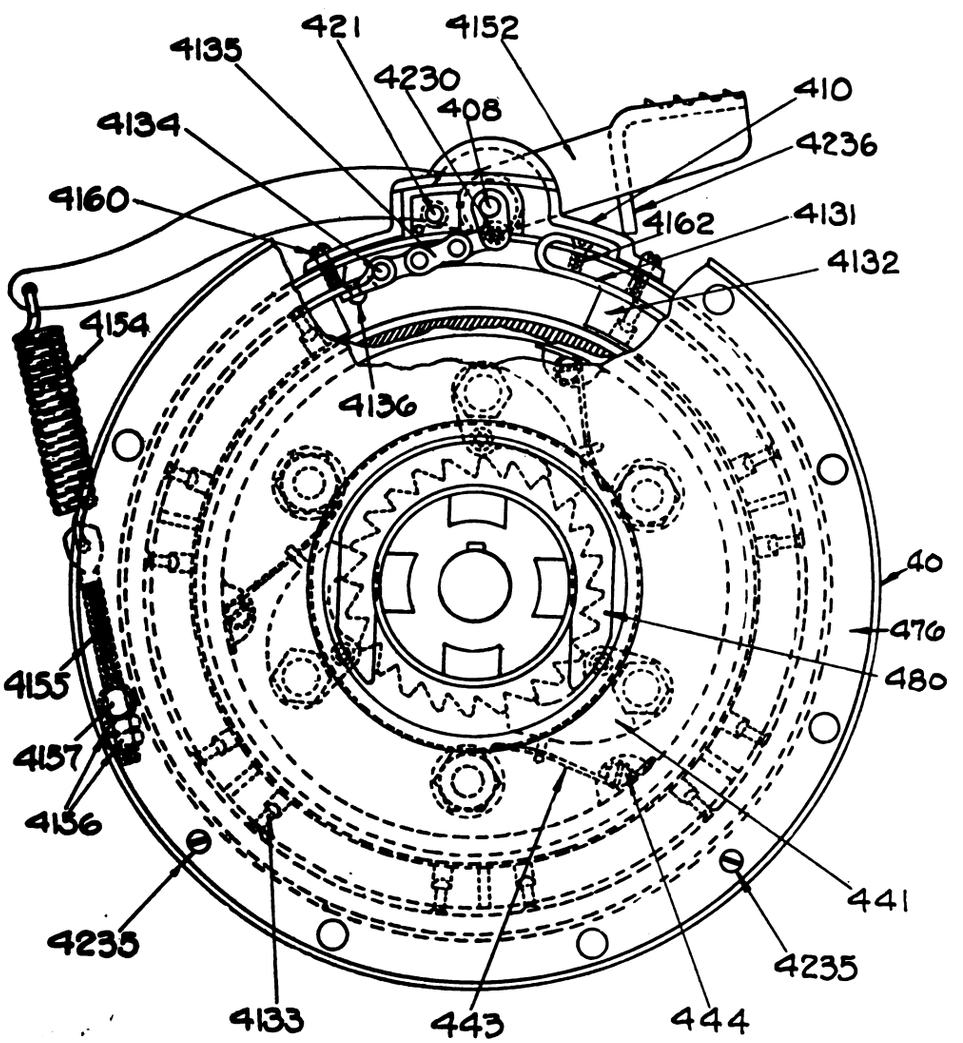
OPERATION OF SELF-STARTER

How Novel Attachment Fitted on 1913 Flying Merkels Turns Motor Eight Times on Pressure of Pedal and Rewinds Automatically to Proper Tension—Applicable to Any Motor.

UNUSUAL interest attaches to the accompanying illustration and description of the self-starter which is being featured on the "Yellow Jacket" models of the Flying Merkel line for 1913, in view of the fact that comparatively little is known of the makeup of the attachment despite the wide interest it has aroused. The device consists of a main spring which is held in tension by a brake made up of V-segments on a steel band and one end of which is fastened to the starter shell or cas-



Side View of Ever-Ready Self-Starter, Showing General Operating Scheme.

ing. The other end has a short link chain which is fastened to and wraps around a stud. The pedal lever for operating the starter is attached to this chain and there is a gear plate carrying reducing gears and starting dogs which acts as a drum to the V brake.

The main spring itself is mounted on an arbor which revolves as one with a driving shaft, the latter carrying at its inner end a series of dog clutches which engage with similar clutches on the motor shaft.

Provision is made for winding the spring by hand, using a crank which is detachable, and this is necessary when the starter is first applied, or at any time when the spring is unwound. With the spring wound the action is as follows: Pressure on the pedal expands the V-brake and releases the main spring, which in unwinding revolves the shaft and turns the motor over by means of the dog clutches. When the pedal is released, an exterior spring pulls down the pedal lever, and thus causes the brake to contract. The motor then rewinds the main spring through the driving shaft by engaging dogs secured to a rewinding spider and this in turn rotates a train of gears. These in turn rotate the spring arbor and wind the spring. As the spring arbor is rotated, a screw and nut device is forced inward, and when the proper tension is attained, this nut operates the release dogs, and disconnects them from the clutch dogs. The winding apparatus then becomes idle and the spring is held by the V-brake, the motor not acting on the starter in any manner.

The capacity of the starter is eight revolutions of the motor at the rate of about 300 revolutions per minute. A failure on the part of the motor to run means winding the main spring of the starter by hand and repeating the starting by pressing the pedal.

TANDEM FIGHT STILL ON

National Capital M. C. Will Take Motorcycle Passenger-Carrying Case to the Court of Appeals

WASHINGTON, D. C.—Following the recent hearing in the mandamus suit of the National Capital M. C. against the Commissioner of the District of Columbia and the Police Department, at which the latter was upheld in its regulations prohibiting passenger-carrying on motorcycles, the attorneys for the club announced their intention to carry the case to the Court of Appeals. The regulations in question are more drastic than those imposed upon motorcyclists anywhere else in the country with reference to passenger-carrying, and the club is confident that its arguments will ultimately prevail.

There were present as witnesses for the National Capital Motorcycle Club T. N. Mudd, Frank Long, Frank Ruppert and wife, J. E. Pyle and wife, George Parezo, W. F. Thropp, H. B. Cohen and A. L. Greecy, all of whom are experienced motorists. They were prepared to testify as to their passenger-carrying experiences. There was also present Horace Cost, who participated in one of the most serious accidents which the police department claims as the basis for its prohibition of passenger-carrying. He was present to testify that at the time of the accident in which he participated the passenger was in front of him on the machine and not on a seat in the rear as desired by the club.

Counsel for the District authorities had no witnesses, so the club's witnesses were called. Assistant Corporation Counsel White stated that it was lawful to invest the power to regulate vehicles, etc., in the Superintendent of Police. In proof of this he cited several cases. The first was that of W. Moore, who in January, 1908, was fined five dollars or fifteen days in the workhouse for having the handlebars of his bicycle on a plane lower than that described by the law. It was decided on appeal that the commissioners had power to make such regulations and delegate the power to carry them out to the police. He then cited further reports.

He therefore said that it was lawful to invest the Superintendent of Police with power to enforce the regulations which the commissioners might make regarding vehicles, etc., in view of the decisions in the cases cited, and that upon examination he decided that harm would come from allowing a permit for two persons to ride a bicycle or a motorcycle built for one. Therefore the counsel stated this was a reasonable regulation.

EXTEND TERRITORY

THE Riverside Motorcycle Garage, 533 West One Hundred and Tenth street, New York, have extended their territory as distributors for the Reading-Standard machine. In addition to Manhattan, Bronx and Westchester counties, it now includes Kings, Queens and Richmond counties, with the cities of Brooklyn and Jamaica and sales are mounting rapidly.

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HOW RIDERS INCREASE TIRE MILEAGE

Growing Tendency Here and Abroad to "Doctor" Tubes and Casings Is Creating Demand for Compact Vulcanizing Outfits—American and English Types Illustrated

FOLLOWING the example of automobilists, experienced owners of motorcycles here and abroad are giving more thought than ever before to the preservation of tires and inner tubes, and many a rider who allowed his casings to "look out for themselves" a year or two ago is now doctoring them carefully, and in some cases almost doubling their mileage.

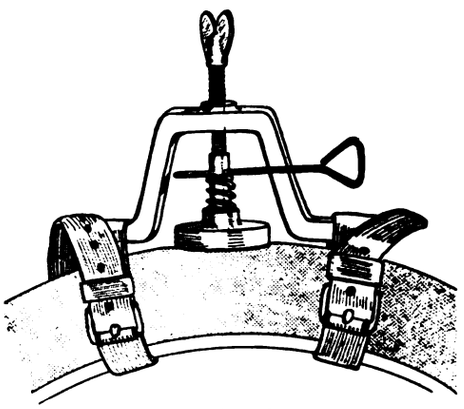
Clark Vulcanizer.

Time was when little or no attention was given to the possibilities of vulcanizing as applied to motorcycle tires, and the motorcyclist in a district of rutted and stony roads often found his item of tire expense a most formidable one. He discovered that as "great oaks from little acorns grow," so great blow-outs from little cuts and stone nicks also grow, and the present spread of interest in systematic tire repairs has been the outcome.

Tires that were used all last summer, or for a good part of the season, will no doubt be in need of some attention before they are put into service again, and it will be well to keep in mind that quite serious injuries to both tires and tubes can be treated successfully if the operator proceeds carefully and along common-sense lines. It goes without saying that such repairs should be made while the machine is out of service, if possible, in order that patched and vulcanized spots may have plenty of time to set before they are subjected to road stresses. Besides, tire repair jobs are more likely to give satisfaction if attended to when the rider is at leisure; once the riding season opens the most conservative motorcyclist can hardly be expected to devote much time to tinkering about the equipment of his mount.

Two types of vulcanizers for motorcycle tubes and covers are shown in the accompanying illustrations, one being produced by the Clark Vulcanizer Company, of Columbus, Ohio, and the other being an English product, manufactured by Messrs. Ara, Ltd., of London. The Clark device has an advantage over the English vulcanizer in that it is compact enough to be carried on the road quite handily; the Ara product is intended for shop work and not for road use.

For mending a puncture the ordinary procedure with either outfit is to cut away the rubber around the hole with a sharp knife until it presents a bevelled appearance at the edges. The edges are then rasped and sandpapered until they are smooth, and a solution is applied to prepare the way for the repair material. The illustration of the English vulcanizer shows the clamp in position for a tire repair.



Ara clamp for tire repair.

THE POPE IN INDIA

OUT of thirty motorcycles which started in the India Tourist Trophy Race held January 25 over a 297-mile course from Calcutta to Gaya, only eleven finished, and among these was a Pope, Model H, which won eighth place, in spite of being handicapped by running out of gasoline. The Pope worked splendidly until it ran out of gasoline 20 miles from the finish. Cameron, the Pope rider, then walked 14 miles, pushing his machine, until another competitor furnished him with a quart of gasoline, which enabled him to finish. The machine that finished just ahead of the Pope won out by only 10 minutes, and the one before that by only 15 minutes. A prize of $25 was awarded to the Pope rider, who covered the 297 miles in 13 hours, 33 minutes, 17⅕ seconds.

In its account of the race *The Statesman* of Calcutta has this to say: "As a race, Saturday's undertaking was perhaps one of the most difficult so far accomplished by motorcyclists in India. It was a trial not only of speed, but of endurance, and the principal feature of it was that the lightweights triumphed right along the line."

A MOUNTAINSIDE RACE

IN the recent motorcycle races held at Riverside, Cal., J. Warman, on an Indian, took first honors in the twin class, while Oro Townsend, riding a Harley-Davidson, won first place in the single events. The three and one-half mile course up the side of the mountain was negotiated by Warman in 3 minutes and 26 seconds. Townsend's time was 4 minutes and 9 seconds.

TO MAKE SPEEDOMETERS

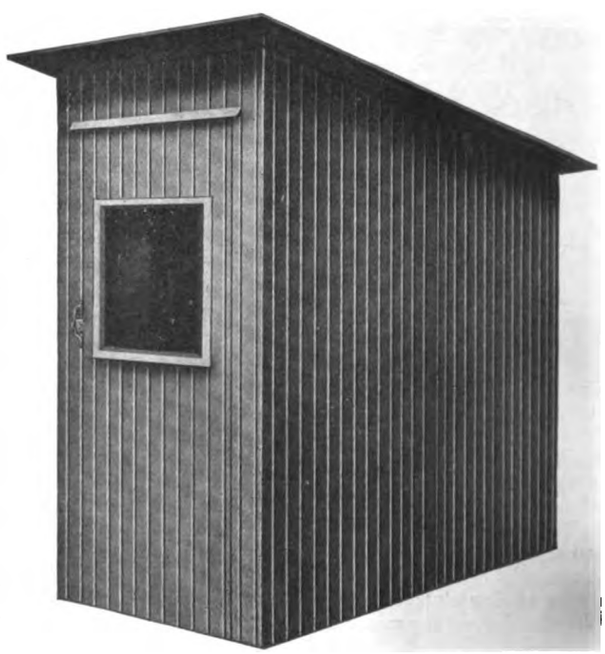
ARTHUR, Leo and O. Friedman and Marshall R. Stewart are the incorporators of the Cleveland Speed Indicator Company, of Cleveland, Ohio. The company is incorporated for $10,000 to manufacture and deal in speed indicators of all kinds.

A NEW OBERWEGNERITE.

CLOVER FRIEDMAN, formerly connected with the Thor, Triumph and Flanders factories, has accepted a position with the Oberwegner Motor Co., of Toledo. Mr. Friedman, who is considered an expert mechanic, will have charge of the repair department.

A STEEL MOTORCYCLE GARAGE

IN addition to its complete line of automobile garages and steel buildings for various uses the Edwards Mfg. Co., of Cincinnati, Ohio, is now placing on the market a neat and serviceable motorcycle garage made of the same high-grade material that goes into the larger buildings and designed especially to meet the requirements of the motorcyclist. The accompanying illustration tells its own story. It will be noted that the structure is exceedingly strong without being cumbersome and that it presents a pleasing appearance. It is 4 feet wide, 7 feet long, 7 ft. 6 ins. high in front and 6 ft. 5 ins. high in the rear. Being constructed of galvanized material the garage is perfectly fireproof, and it will last indefinitely as there is practically no opportunity for decay. The motorcycle garage, as shown in the illustration, is sold for $30. A most interesting and well illustrated catalog telling the story of the full Edwards line will be forwarded on request.



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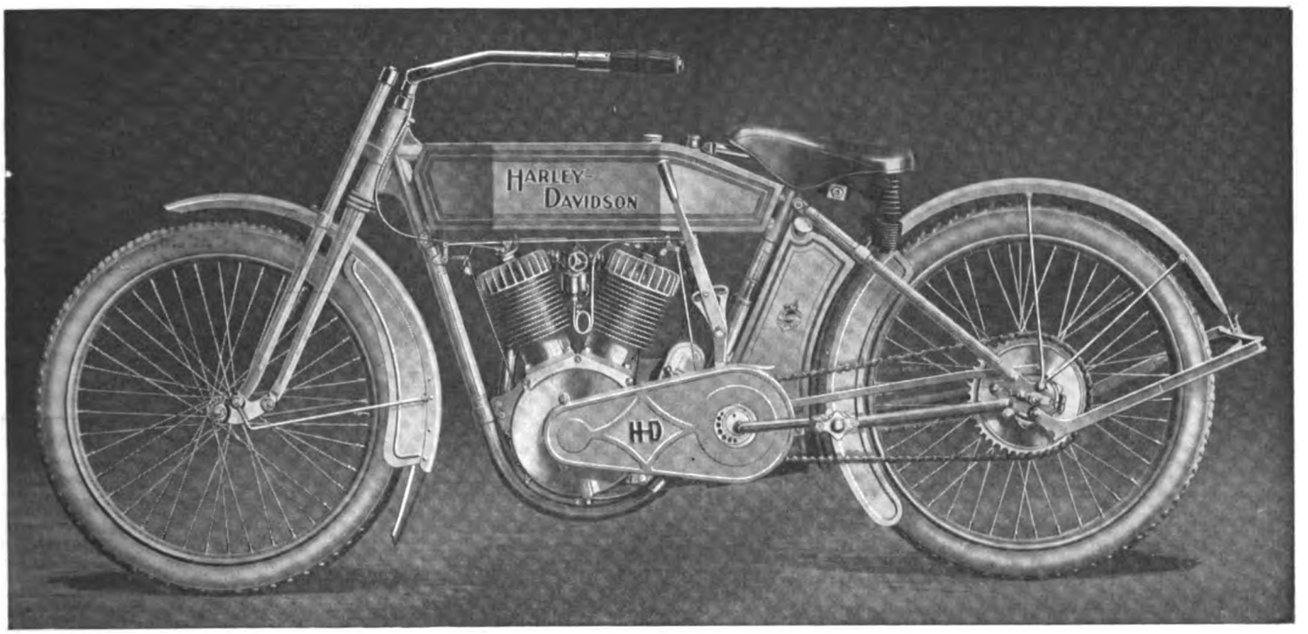

Our Growth

OUR latest acquisition (Factory No. 7) contains 36,400 square feet of floor space.

We realize that delayed deliveries would mean business lost for our dealers and we aim to make it impossible for any Harley-Davidson dealer to be able to say at the end of the season that we fell down on a single delivery schedule. We acquired Factory No. 7 to take care of our dealers and for no other reason.

This latest edition to the Harley-Davidson factories alone is larger than our entire plant of three years ago.

The Harley-Davidson Motor Company has grown faster than any other motorcycle manufacturer. It has grown faster than any other manufacturing concern in Milwaukee, a city with nearly half a million population and more than 4,000 manufacturing plants.

The success of the Harley-Davidson Motor Company has been due directly to the success of the Harley-Davidson motorcycle.

Harley-Davidson Motor Company

Producers of High-Grade Motorcycles for Eleven Years

381 C Street **Milwaukee, Wisconsin**

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MOTORCYCLE MART

One time, three cents a word; twice, two cents a word each insertion. Agents' cards, five cents per word; two or more times, three cents per word each insertion. No advertisement for less than fifty cents.

FOR SALE OR EXCHANGE

FOR SALE.—New Standard Speedometers, Excelsior and Indian attachments, $12; $20 instruments. Address Speedometers, care of MOTORCYCLE ILLUSTRATED.

FOR SALE—1913 Bushnell & Cannon two-speed gear to fit countershaft type motorcycle, price $20. Percy Morgan, 7 Elizabeth st., Newport, R. I.

1913 8 H. M. M. TWIN, like new; run less than 200 miles; fully equipped with clutch, Presto tank, old sol No. 8, luggage carrier, pump and tools. Must sell. First check of $210 takes it. Clay Mitchell, Edgar, Neb.

FOR SALE.—A 1912 Harley-Davidson, 4-horse, with magneto, free-wheel clutch and Ful-Floteing seat. Used about four months. In best condition. Reason for selling, have bought twin Harley. Photo. Address E. J. Cohoe, 218 Haynes St., Johnstown, Pa.

FOR SALE.—Motorcycle, bicycle and phonograph business, including side lines. Location and good will by purchasing five hundred dollar stock. J. A. Finkle, Dalton, Mass. "In the Heart of the Berkshires," State roads all directions.

FOR SALE QUICK.—1911 twin Indian 5 h. p. Clutch, new tires, carrier, priming cocks, magneto cutout. Overhauled, painted; cylinders rebored December 1. Photos and details at request. Send for $25 deposit. Calvin Webber, Lynchburg, Va.

DO NOT OVERLOOK to get our bargain list. Speedometers, $6.50 up; Prest-O-Lite, $8; side cars, $35 up; pennant holders, 20c., postpaid; tandems with seat, $5. Many other bargains. Investigate. Motorcycle Exchange, Schenectady, N. Y.

FOUR-CYLINDER HENDERSON must be sold quick; perfect condition; used as demonstrator. Will ship C. O. D. $190. First deposit of $50 takes it. Address "C. K.," care of MOTORCYCLE ILLUSTRATED, 51 Chambers st., New York City.

WANTED.—Side car and commercial side car; must be cheap. Frank W. Phillips, Conewango Valley, N. Y.

FOR SALE.—One 1912 Emblem motorcycle with side car; $125. One 8 h. p. M. and M. twin motor carburetor, coil and muffler, $50. H. Haskel, Spencerville, Ohio.

1912 PIERCE MOTORCYCLE 5 h. p., Eclipse clutch, not run over 500 miles, bought in September, cost $265; will sell for $125; guaranteed in perfect condition. F. C. Merritt, 2554 Bedford Ave., Brooklyn, N. Y.

FOR SALE.—Four-cylinder Ford automobile, good running order, top, good tires; price $150. Walter Robb, Canal Dover, Ohio.

FOR SALE.—A motorcycle tandem, Hull, Mount Hope, Pa.

BARGAINS in motorcycle supplies and slightly used motorcycles. Write for particulars. Jewell E. Pierce, Magnolia, Miss.

FOR SALE.—1912 4 h. p. N. S. U. two-speed, free-engine; guaranteed perfect condition; $125. Can be seen in New York. A. W. Wilson, care of W. P. Hamilton, Sterlington, N. Y.

FOR SALE.—1912 4 h. p. Indian; first-class condition; 2¼-in. rear tire; Ero tandem and luggage attachment; Yale shock absorber; price complete, $165. H. Lystul, Glendale, Ore.

FOR SALE.—One 1910 4 h. p. magneto M. M. with tandem, light and good tires, $60. One 1910 4 h. p. battery M. M. with tandem and new tires, $50. C. A. Marietta, Fostoria, Ohio.

FOR SALE.—Excelsiors, Indians and Harley-Davidsons; all have magnetos, and in fine condition. Ford N. Roadster, $275. Send for list. P. Callender, 213 Sand st., Peoria, Ill.

FOR SALE.—Ecco spring tandem, Troxel saddle complete; never been used; made for Indian; will fit any 1912 motorcycle. Sent prepaid for $10. T. Brockley, St. Croix Falls, Wis.

FOR SALE.—Indian twin, late 1912 two-speed, ridden 1,235 miles, tires good, recently thoroughly overhauled, guaranteed fine condition, well equipped; $199. G. Leslie Dougherty, Jerseyville, Ill.

FOR SALE.—4 h. p. New Era 1911 model; A-1 condition; Combination tandem and luggage carrier; $100. M. M. Aiken, 816 Union St., Brooklyn, N. Y.

BUY MY 1912 two-speed, four-horsepower Minneapolis, in good shape; $160 Ludwig Mickelson, R. R. 2.

MOTORCYCLES CHEAP.—Every motorcycle in stock must be sold this month; need room for large shipment of 1913 Eagle. Write for list "I," American Motor Co., 2724 Michigan avenue, Chicago, Ill.

HELP AND SITUATIONS WANTED

MANUFACTURER, WHOLESALER, RETAILER—Do you need an employee who has practical working knowledge of cycle industry? One with fourteen years' actual experience—who successively has been designer and builder of special racing wheels, bicycle and motorcycle agent and repairer, traveling salesman and trade editorial writer. Sales or publicity work on bicycles and motorcycles preferred. Outline your proposition if interview is desired. W. R. Stroud, 65 West 11th street, New York City.

MECHANICALLY inclined, ambitious young man wants position in motorcycle repair shop; some experience. E. M. Van Name, 336 51st st., Brooklyn, N. Y.

WANTED.—Good all-round bicycle and motorcycle repair man; steady job. G. W. Campbell & Co., Waterloo, Iowa.

MISCELLANEOUS

DETECTIVES WANTED.—Young men to operate in own locality; secret service work. Experience unnecessary. Enclose stamp for particulars, Universal Detective Agency, Oklahoma City, Okla., 304 Colcord Building.

WANTED.—N. S. U. Two Speed Gear; cheap. Ed. Andres, Madison, Ind.

YOUR NAME and address on 20 finest vest pocket cards, 10 cents. Beautiful photo watch charm free. Warfel, Photographer, Cadiz, Ohio.

PATENTS

promptly obtained OR NO FEE. Trade-Marks, Caveats, Copyrights and Labels registered. TWENTY YEARS' PRACTICE. Highest references. Send model, sketch or photo. for free report on patentability. All business confidential. HAND-BOOK FREE. Explains everything. Tells How to Obtain and Sell Patents, What Inventions Will Pay, How to Get a Partner, explains best mechanical movements, and contains 300 other subjects of importance to inventors. *Address,*

H. B. WILLSON & CO. Patent Attorneys

Box 500 Willson Bldg. WASHINGTON, D. C.

$35 REWARD for return of green R.-S. 7 h. p. 1912 motorcycle, motor No. 8234. Only made in green and brown; if other color investigate. Reward $35.00; no questions asked. P. Beyer, 655 Lenox ave., New York City.

CUSHIONS FOR YOUR CARRIER

BUY DIRECT from manufacturers. We prepay. Spring cushion, 10 x 14 in., in Moroccoline Spanish leather, red, tan, green or black, $2 prepaid. Tufted cushion without springs, size, etc., as above, $1.15 prepaid. Send for circular and samples of leather. Geo. Egelberg, 144 South Sixth street, La Crosse, Wis.

DEALER'S CARDS, Etc.

GUS ROTHOLZ, agent for Indian and Excelsior. 1491 Fifth avenue, between 119th and 120th streets, New York. Telephone, Harlem, 2337.

RIVERSIDE MOTORCYCLE GARAGE—Distributors for Reading-Standard and agents for Eagle motorcycles, simplex side cars and F. N. combination tandem attachment and luggage carrier, complete, $15. 1913 models in stock; also a large number of used machines at bargain prices. A complete machine shop; all repairs and supplies. 533 West 110th St., near Broadway. Tel. 5615 Morningside.

"BOB" BRAZENOR, specialist on repairs, Brooklyn agent for Harley-Davidson and Excelsior motorcycles. Parts and supplies for all makes in stock. 1507 Bushwick Ave., Brooklyn, N. Y.

B. & C. TWO-SPEED and free engine gears for chain-driven motorcycles of the counter-shaft type. Bushnell & Cannon, 1268 East 80th street, Cleveland, Ohio.

THE LATEST AND BEST guaranteed Motorcycle Supplies at lowest prices will be shipped same day your order is received. You get satisfaction in every package. Write for largest Motorcycle Supply Catalog ever printed. Motorcycle Equipment Co., Hammondsport, N. Y.

T. J. SIXSMITH, expert repairing; agent for R.-S., Indian and Excelsior motorcycles. 208 W. 100th street, New York.

M.-M. AND EAGLE motorcycles. Two big twins—$240 and $275. Two big singles—$200 and $235. The largest and most powerful line in America. Full line of parts and accessories at George P. Jenkins, Eastern Distributor, 256 West Fifty-fifth street, New York City.

THE NEW YORK Motorcycle Co., 782 8th avenue, New York City. Distributors of Thor motorcycles and parts. We have the only supply of parts in America for F.-N. and Royal Pioneer motorcycles. We also carry a big stock of parts for Indian, Curtiss, M.-M., N. S. U. and R.-S. We have at all times over 50 used machines at all prices We repair broken cylinders, pistons and crank cases. We have the largest and best equipped motorcycle garage in the country and we do reliable repairing.

HAVE YOUR motorcycle overhauled now; expert work, moderate charges; ten years' experience in motorcycle repair work. Parts for N. S. U., Indian and Peugeot. Metropolitan Motorcycle Repair Co., 320 Amsterdam avenue, cor. 75th street, New York. Tel. No. 1007 Schuyler.

T. S. CHIPLEY—The Motorcycle Man, Greenwood, S. C. Distributor of Harley-Davidson motorcycles and parts. We have the best equipped repair shop in the South. All parts for Harleys in stock at factory prices. Terms, cash with order. When in need of parts save time and order from us. Also have tires, belts, oils, etc. Prompt shipments guaranteed. T. S. Chipley, Greenwood, S. C.

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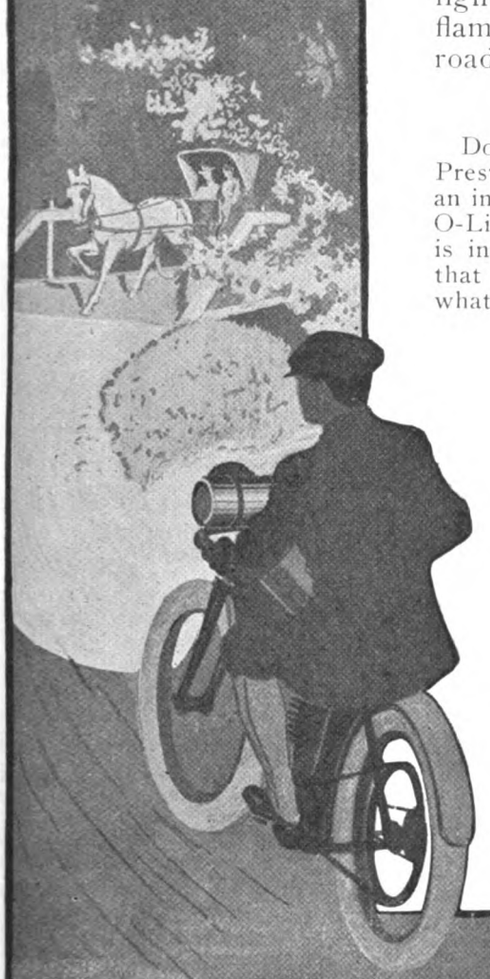
Prest-O-Lite
For Motorcycles



Test It Out on Your Machine

Don't deprive yourself of the pleasure and safety of night riding with Prest-O-Lite.

You're missing a lot by trifling with troublesome, unreliable gas generators, when Prest-O-Lite Service costs you no more, usually less. Ask any experienced rider.

With Prest-O-Lite you have a brilliant, reliable light that turns on and off like a gas jet. The flame is always steady, no matter how rough the road.

Many times worth its price

Don't consider the price you pay for Prest-O-Lite as money spent—but as an investment. Remember that Prest-O-Lite never becomes second hand. It is in such universal use and demand that it can always be sold for about what you pay for it.

$10.
With gauge.

Trial costs you nothing

We are so sure that you will find Prest-O-Lite indispensable that we make you this proposition.

Put a motorcycle Prest-O-Lite on your machine. Use it for thirty days and nights. Test it out on every kind of road, for city driving and country road work. Then if you find that you can do without it, the test won't cost you a cent. Can you afford not to make this trial?

Ask your dealer or write us.

The Prest-O-Lite Co., 246 East South Street Indianapolis, Indiana

Canadian General Offices and Factory, Merritton, Ont.

Exchange Agencies Everywhere

To Dealers—There are five times as many motorcycle Prest-O-Lites in use today as there was one year ago. Are you getting your share of this business?

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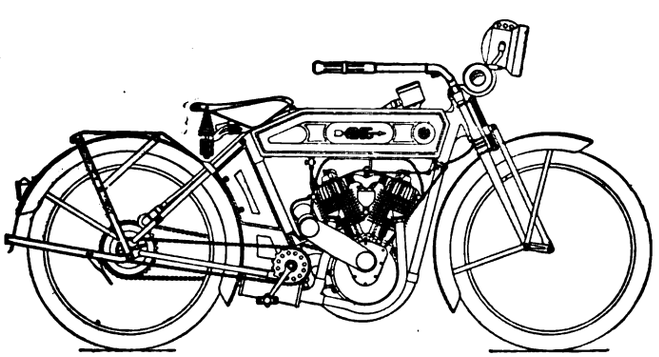
AMC



THE ONLY COMPLETE MOTORCYCLE

With Every Equipment

Five Models

All with Eclipse Free Engine Pulley

A machine with an abundance of power, exceptionally well proportioned and balanced, made to answer every requirement of city use and touring with the greatest comfort and economy.

The successful agent does not guess; he knows—because he takes the trouble to find out. Get the A-M-C proposition which shows the way to easy sales and big profits.

Manufactured by

Allied Motors Corporation

MOTORS BUILDING
Union Park Place and Carroll Ave. CHICAGO, U. S. A.

DEALERS!

Send for our Catalog descriptive of the following list of Live Specialties we are manufacturing for 1913 and which are needed constantly in the motorcycle field.

Guaranteed Perfect Specialties

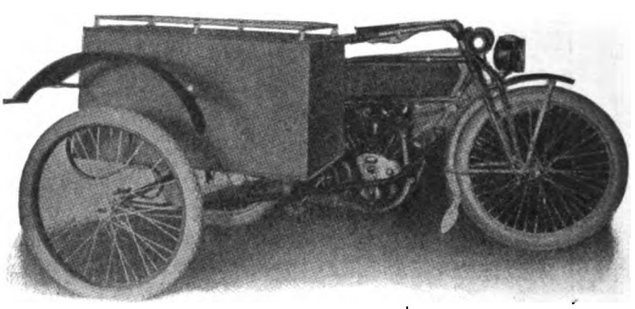
Simplex Spring Tandem Attachments; New Type A-K Luggage Carriers with Tandem Combination; New Type A-K Spring Luggage Carriers with Tandem Combination; A-K Pleasure Side Cars, Metal Bodies; A-K Commercial Side Vans, Bodies Optional; A-K Motorcycle Locks; A-K Fabric Pulley Lagging; A-K Bicycle Luggage Carriers; A-K Manifold Air Valves; A-K Lamp Brackets; A-K Spring Cushions—used in connection with Combination Luggage Carriers; A-K Axle and Stand Extensions; A-K Axle and Special Nuts.

A-K Rain Proof Riding Outfits in Containers with Brackets. Container about size of Prest-O-Lite tank. Also used to advantage for carrying Tools or Extra Tubes, etc.

ANGSTEN-KOCH COMPANY
Incorporated

Makers of Good Specialties

200 Englewood Ave. CHICAGO



BUSINESS IS WAITING FOR YOU!

Demonstrate the "Anders" Delivery Car to your local grocer, butcher, baker, druggist or newspaper and you have opened the way for sales.

The "Anders" possesses so many exclusive features, its value as a money maker and money saver is so apparent that the only thing to complete the sale is your own good salesmanship.

"ANDERS"

Delivers the Service as well as the Goods

Anders commercial cars are fair in price. Comparisons will convince the most exacting dealer that this car offers the solution for his delivery problems.

DEALERS—Get in touch with us today. We offer you a corking good proposition.

"ANDERS" Sidecars—National Accessories

"Anders" Sidecars—the cars with the "rocker motion"—will be seen on every road this summer. Our catalog tells all—also all about National tandems and accessories.

National Cycle Accessory Co., Aurora, Ill.

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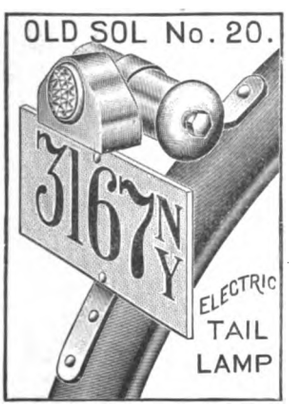
"Away with Gas Tail Lamps—Give me an Old Sol No. 20 Electric Tail Light"



Boys, it's a beaut! It does away at one stroke with the countless vexations of the gas tail lamp, with its long tube that has to be strung from the tank to the rear of the motorcycle and its steady drain on the gas that rightfully belongs to the headlight.

It's a compact little lamp, quickly detachable and can be used as a trouble lamp for fixing broken connections, adjusting the carbureter, etc., at night. Every feature of this lamp is fully covered by patents, both as to method of operation and design.

Stanley T. Kellogg, a leading dealer in Bridgeport, Conn., was so impressed with the efficiency of Old Sol No. 20 that he placed his order for 500. "Nuf sed."

DESCRIPTION

Weight, 22 ounces. Combination bracket holds number plate and allows white light from lamp to illuminate same. Red jewel on head throws rear signal. Burns from 20 to 25 hours intermittently. Supplied complete, with 1 candlepower bulb and battery No. 790.

PRICE, $3.00

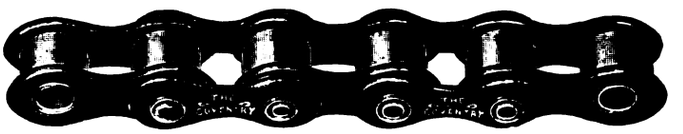
Get our descriptive booklet

HAWTHORNE MFG. COMPANY, Inc.

37 Spruce Street, Bridgeport, Conn., U. S. A.

POLLOCK MANUFACTURING CO., Ltd., Berlin, Ont., Canada

Pacific Coast Representative:
L. B. STEVENS, 230 Grosse Building, LOS ANGELES, CAL.



If Your Motorcycle is Equipped with "The Coventry" Chains *Your* Transmission Problem is Solved.

This advertisement is for the attention of every motorcycle rider, but is primarily aimed at the novice and the prospective motorcyclist.

Many and weird have been the arguments advanced by makers of a transmission whose unreliability and general inadequacy to needs of the American rider have been conclusively proven after a fair and impartial test extending over a long period.

And various plausible arguments have been advanced in an effort to explain why the majority of motorcycle manufacturers have made their machines chain drive **exclusively.**

In final answer to these feeble attempts at influencing the opinions of the novice rider and the prospective purchaser of a machine —for a veteran rider would only laugh at their claims—we want to urge every prospective motorcycle rider to insist upon

"The Coventry" Chain

"The Motor's True Mate"

Let the best chain champion the cause of the best transmission. Do not start your motorcycle riding career with a **make** of chain that will cause you to think that the **type** of transmission is inefficient.

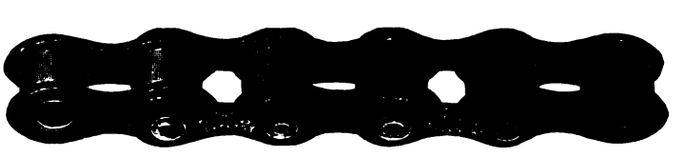
Solve the transmission problem once and for all with "The Coventry" Chains. For suppleness, for silence, for speed, for perfect indomitable strength, "The Coventry" Chains are unquestionably as far in advance of other chains as the chain transmission is superior to the belt.

They are made to withstand a strain of considerably more than 3600 lbs. They afford the acme of non-wasting power transmission for at least four thousand miles, and very often much longer.

If you will send us your name and address we will send you a copy of our handsome catalog and also one of our tiger color pennants.

Sarco Engineering Co.

112 Broad Street, New York



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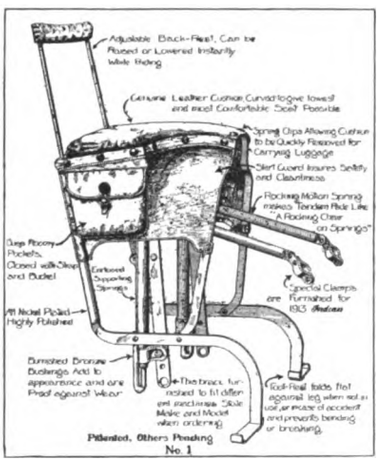
STOLL DREAM TANDEM

PATENTED

"JUST FLOATS ALONG"



A few of the features that help make the STOLL DREAM TANDEM the easiest riding tandem in the world.

Genuine leather cushions gracefully shaped and provided with skirt guard and pockets.

Folding foot-rest.

Rocking motion which allows the tandem to remain steadily in the same position, regardless of the jolting of the machine.

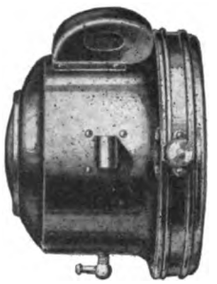
The back-rest combined with the rocking motion give the rider a sense of security and comfort found in no other tandem. Can be raised or lowered instantly while riding.

Send for catalog. Dealers' proposition now ready.

Get in line with the live ones.

THE QUEEN CITY L. & W. WORKS

33rd and Walnut Streets **DENVER, COLO.**



VICTOR OLD RELIABLE MOTORCYCLE LAMP

From sales and inquiries received at Chicago Show this lamp will undoubtedly exceed the tremendous success of the famous X-Ray.

A glance at specifications will convince every rider of the desirable features of this lamp—greatest of which is the enormous size, genuine mangin mirror, 6½" diameter, unheard of before in the history of motorcycle lamps.

Specifications.

Front diameter	8¼"
Body "	6½"
Size of lens	6½"

Manufactured by

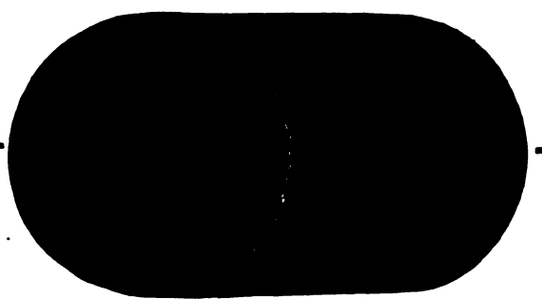
VICTOR AUTO PARTS CO.

CINCINNATI, OHIO

Selling Agents

FULTON McCUTCHAN CO.

1146 MICHIGAN AVE., CHICAGO, ILL.



Brown Scientific Non-Deflating Pneumatic Tube

AN AIR-FILLED MOTORCYCLE TUBE POSSESSING VERY UNUSUAL FEATURES:

First: It withstands a tread puncture without deflating the tube.
Second: The higher the pressure the tighter the puncture closes.
Third: It eliminates the risk of destroying casings by reason of punctures.
Fourth: The danger of loss of control of machine is removed.
Fifth: It assures you of not being obliged to repair a puncture on the road and gets you "there and back" on full tires.

AIR FILLED ONLY.

Punctures are self-closing by reason of a scientific but simple principle of construction.

NO "DOPE," GUM, PASTE OR OTHER STUFFING MATERIALS.

Write for prices, full description and sectional sample.

VOORHEES RUBBER MFG. CO.

Sole Manufacturers

Main Office and Works: 18 to 46 Bostwick Ave.
JERSEY CITY, N. J., U. S. A.

NEW YORK STORE 38 Vesey Street

BOSTON STORE 280 Columbus Ave.

Frame Parts
Rims
Pulley Rims
Mud Guards

As pioneers in the production of these articles we have acquired a reputation for high quality that becomes an asset to all who use our products.

Our frame parts are made from individual blue prints only and we use in their construction only the finest quality of

"Standard Steel Tubing"

THE LIGHTEST, STRONGEST, SMOOTHEST STEEL TUBING MADE

THE STANDARD WELDING COMPANY

CLEVELAND, O.

OFFICES IN

New York **Chicago** **Detroit**

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WARNING

Every motorcyclist is looking for a pleasant warning signal which will work equally well in the city, or country and under all conditions.

1913 BARCO MOTORCYCLE CHIMES

offer the only solution to this problem. They are much larger than last year's model, and the three tones are deeper and richer. It is remarkable what a volume of tone may be produced with this horn on the average motorcycle and how easily the horn will blow.

The Barco Outfit is easily installed and will attract attention everywhere.

The Barco Chime Valves are the only valves with an absolutely unobstructed exhaust passage. Experienced motorcyclists appreciate the necessity of keeping the exhaust free from obstruction and back pressure, and this is only accomplished by the Barco Valve.

BARCO BRASS & JOINT CO., CHICAGO

Patent applied for MODEL A

MUELLER TANDEM ATTACHMENT TO FIT ALL INDIAN MOTOCYCLES

Specially Adapted to New Spring Frame Models

MODEL A attachment is for 1913 spring frame machine and does not interfere with frame action. Attachment is made of steel tubing and drop forgings, well brazed—enameled and nickeled. Large Troxel motorcycle saddle, adjustable handle bars, standard No. 3 pedals. Enameled red to match motorcycle.

L. J. MUELLER 6307-09-11 Woodland Ave. CLEVELAND, O.

GARGOYLE

Mobiloil

DIFFERENT motorcycles need different lubricating oils.

Some one of the several grades of Gargoyle Mobiloil will get the greatest efficiency from your motorcycle.

Send us the name and model of your motorcycle. We will tell you the grade of Gargoyle Mobiloil that is best suited to it.

VACUUM OIL CO., Rochester, N. Y.

DETROIT Ford Bldg. BOSTON 49 Federal St. NEW YORK 99 Broadway CHICAGO Fisher Bldg
PHILADELPHIA 4th & Chestnut Sts. INDIANAPOLIS Indiana Pyth an Bldg.

Distributing warehouses in the principal cities of the world.

STANDARD SPEEDOMETER

THE INSTRUMENT OF PERMANENT ACCURACY

New unbreakable steel shaft casing, heavy bevel joint. Nickel steel gears. Special axles for all motorcycles requiring swivel fittings. Drop forged and hardened swivel fittings with large bearing surfaces. Ball bearings in the bevel joint, shaft coupling and main spindle. The new outfit will stand hard usage without injury.

STANDARD THERMOMETER CO.
65 Shirley Street, Boston, Mass.

NEW PRICES, 1913 MODELS

Fittings Patented, the Only Practical Ones in Use

$16.00

Other Models

$14.50 and $12.00

Dials 60 or 80 Miles

Every effort has been made to produce the neatest, most accurate, and above all, the most durable speedometer manufactured to date.

Catalogue on request.

When writing to advertisers, please mention MOTORCYCLE ILLUSTRATED.

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The Neverout

TRADE MARK

MOTORCYCLE OIL LAMP

(Patented)

SHOWING A RED REAR LIGHT

THE ONLY RELIABLE MOTORCYCLE OIL LAMP

LAMP WEIGHS ONLY 12½ OUNCES.

The Neverout complies with the laws of the various States and Municipalities.

The Neverout burns kerosene ten hours with one filling, and will stay lighted under any and all conditions. All riveted—will not rattle or jar apart over roughest roads.

Made in gun metal, brass or nickel finish. Double clamp bracket furnished; fastens lamp securely to fork of motorcycle. No danger of shaking off, and *shows red rear danger signal.* Sold by leading jobbers and dealers everywhere.

The Neverout is equipped with a *Patent Glass Covered Reflector of German Silver,* instantly removable; never loses its original brilliancy.

Guaranteed to stay lighted or money refunded

FOR SALE BY LEADING DEALERS.

Made Only by **ROSE MANUFACTURING COMPANY**

933 Arch Street, Philadelphia, U. S. A.

Baxter

For every letter in its name the Baxter Sidecar possesses a good point. Its seamless steel tubing with double reenforcements, its wonderful spring wheel, its scientific distribution of weight all make it

The Strongest, the Lightest, the Most Comfortable Sidecar in the World

Its recent transcontinental run demonstrates conclusively that the Baxter was built to stand up. And yet—mark this—you do not need a powerful twin to handle the Baxter. A good single can do the trick every time. Write us about it.

Baxter Sidecar Co.

119 Broadway Cambridge, Mass.

I TELL YOU THIS

If I didn't believe that Nathan's line of motorcycle garments were worth more in actual **quality** value than any other garments marketed, I would never allow my trade mark name to appear on them.

NATHAN

on all motorcycle garments means to dealers absolutely right goods at absolutely right prices. To riders it means the best that money can buy.

Beware of Imitations.

Send for catalog of complete line.

NATHAN NOVELTY MFG. CO., 84 to 90A Reade St., New York City

DEALERS! GET OUR 1913 CATALOG—NOW READY

THE SIDNEY B. ROBY CO.

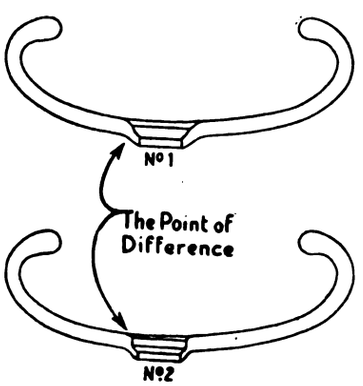
ROCHESTER, N. Y.

Bicycles .·. Bicycle and Motorcycle Sundries

Garage Supplies

All Sizes and Styles $1

Emil Grossman Co., Mrs.
254 W. 54th St.
NEW YORK
FACTORY AND BRANCH
844 Woodward Av.
DETROIT



Mott Rims for Strength

THE superiority of the Mott motorcycle rim lies in the little points that the average riders never notice, but that show up strongly in hard service. For instance, take the way the spoke holes are punched. On Mott rims this is carefully and accurately done so that there is ample strength to hold the nipple securely. Sketch No. 1 shows the idea.

Most other rims come out like No. 2. This part of the work is hurried over, carelessly done, and as a result the holes are counterpunched too deep, making a weak spot, which often allows the nipples to pull through the rim.

Mott thoroughness shows up in the tests. Note the wheels that come through the severe endurance runs in the best condition. You'll find them fitted with Mott rims. To be sure of satisfaction, specify Mott rims for your machine.

WRITE US FOR FULL DETAILS

THEY WILL SETTLE THE RIM PROBLEM FOR ALL TIME

MOTT WHEEL WORKS, Utica, N. Y., Manufacturers

R. B. ABBOTT SALES CO., Sales Agents, Majestic Bldg., Detroit

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Bosch Plugs

Are Long Lived and Efficient

THE spark plug may seem of no consequence because it is small, but engineers consider it one of the motor's most important efficiency factors, also a point where most troubles are located.

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It tells you all you should know about plugs.

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Loewenberg garments for motorcyclists more than measure up to every standard—style, finish, comfort, quality, protection, class. No matter what a customer may demand, no matter how much he may want for his money, you can make ready sales if you carry this line. It's a winner.

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We make a complete line of motorcycle garments, leggins, motorcyclists' caps, puttees and ladies' motorcycle garments. The Loewenberg line of specialties will make business for you.

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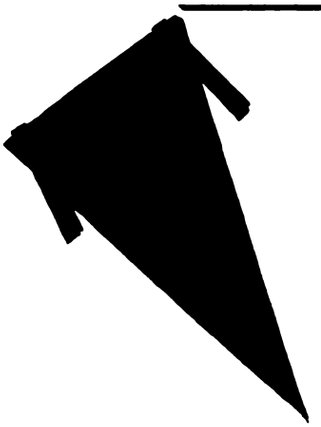

Our Big Combination Offer

To introduce our line of motorcycle pennants we will send prepaid upon receipt of $1 the following pennants—in original colors—Indian, Merkel, R-S, Eagle, Emblem, Monarch, Thor, Excelsior, Henderson, Minneapolis, Yale and Jefferson. Can you beat it? They make dandy wall decorations. This offer is for a limited time only, so hurry!

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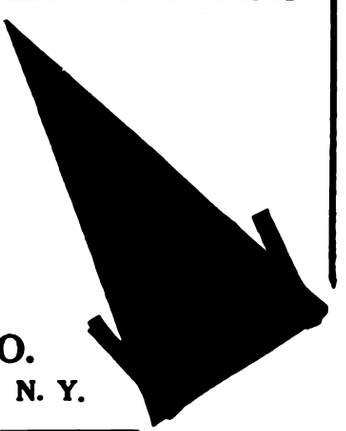
Remember, we are prepared to turn out pennants of any kind, at extraordinarily short notice and in **any quantity**, up to 500,000.

We reproduce machines or accessories with life-like realism. All colors are waterproof and **cannot be eradicated.**

Write at once for quotations and send 10c. for sample pennant.



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In Name and Quality

Never has there been a truer saying than the time-worn old adage, "It's the little things that count." And it is the degree of attention paid to these "little things," that determines oftimes the success or failure of a machine to "get across."

Wise manufacturers are equipping with Diamond "E" Spokes and Standard Pedals because they are quality goods—because they reduce the number of repair shop trips for the rider—because farsighted manufacturers realize that a motorcycle's weakest points are its strongest—and it is that infinite attention to detail which bespeaks perfection.

The dealer who looks ahead will stock heavily with Standard Pedals and Diamond "E" Spokes and Nipples. The motorcycles that are not so equipped will inevitably come to his shop for replacements and it is up to him to sustain his reputation for high-grade repair work by fitting Standard parts.

Everyone knows the superiority of Standard No. 3 Pedals, their deep, soft rubber cushions, the interchangeability of the rubbers, and the thousand and one other good features that are not found in other pedals. The feet cannot slip no matter how rough the going. And the perfection of Diamond "E" Spokes is proverbial.

The Standard Company

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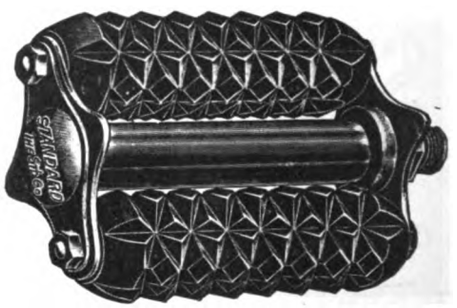

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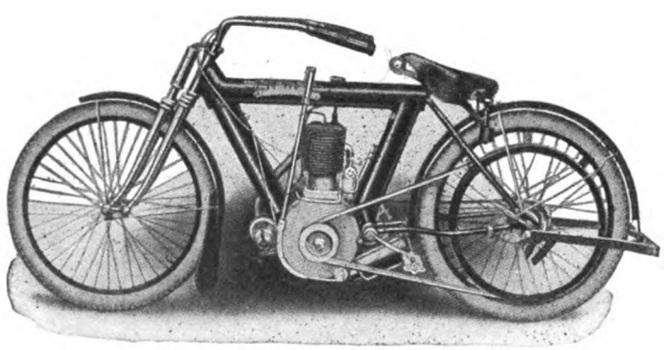

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A perfect combination tandem, back rest and luggage carrier.

THE "TRIO" can be adjusted horizontally and vertically to suit the rider.

A good proposition to dealers.

We make tandems and back rests to fit 1913 Indian and Flying Merkel luggage carriers.

Price $19.00 f. o. b. Cleveland, O.

1913 Indian Combination Back Rest and Tandem, $13.50 Complete.

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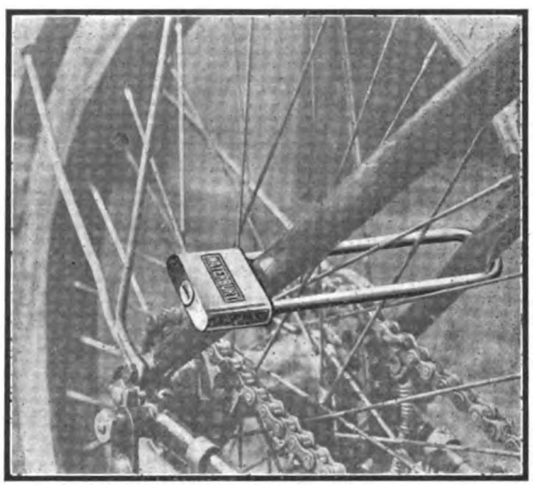
Easiest to use, cannot be forced or picked, absolutely prevents movement of either front or rear wheel. Carried in any pocket or tool bag. Solid Brass. Hard Steel Shackle.



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SIMPLEX MAGNETO CUT-OUT

Price 50c., or complete with cable, 75c. By mail, postpaid. We also make the celebrated Simplex Side Cars. Let us send you our booklet.

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One Hundred Miles In 68 Minutes

and one mile in 36 seconds flat! On January 7th Lee Humiston made the record, using

J-D Motorcycle Standard Spark Plugs

the new porcelain type introduced by the Jeffery-Dewitt Company. Read the following:

$1.00

"It gives me pleasure to confirm my telegram to the effect that I used your J-D Motorcycle Spark Plugs on my recent record trial in Los Angeles, on January 7th, at which time I broke the records up to and including one hundred miles, at the Playa Del Rey Motordome, using your porcelain plugs. These plugs gave me absolutely no trouble and my engine never missed an explosion during the entire one hundred miles.

"I was somewhat skeptical about using a porcelain plug, but after making several tests I decided to try them and they 'made good.' I shall use them on my future trials. Yours very truly,

"(Signed) LEE I. HUMISTON.

"Witness:

"(Signed) E. L. MORSE.

"Subscribed and sworn to before me by the said Lee I. Humiston this 27th day of February, 1913.

"(Signed) J. F. KEEGAN,
"Notary Public."

Get a set of these great plugs from your dealer—or sent prepaid on receipt of price. *Metric size only.*

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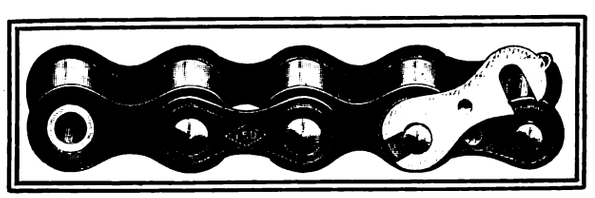

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Because it is known to be dependable under all conditions—this chain is the particular choice of motorcycle riders who use their machines day after day, in all kinds of weather.

The transmission of your motorcycle is one of its most important parts—be sure you have the best.

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CHAIN MANUFACTURERS FOR 22 YEARS
CAPACITY, 8,000,000 FEET PER YEAR

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Are you getting it?

Yes—provided you buy a Wetpruf belt.

Every Wetpruf belt is fully guaranteed.

Its makers have confidence in it.

If it doesn't make good, they do.

If other belts were as good as Wetpruf they'd be guaranteed, too.

Take no chances. Buy a guaranteed belt. You pay for it. Get it!

Buy a Wetpruf It is guaranteed.

Your dealer can supply you with a Wetpruf belt. Additional Wetpruf facts if you will write us.

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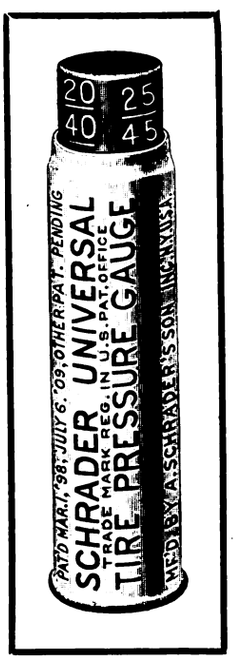
A SCHRADER Universal Tire Pressure Gauge



PRICE ONE DOLLAR

Will tell EXACTLY what pressure you carry in your tires.

Kicking the tire won't tell you and guessing won't do.

Nearly right isn't enough, the pressure must be EXACTLY right.

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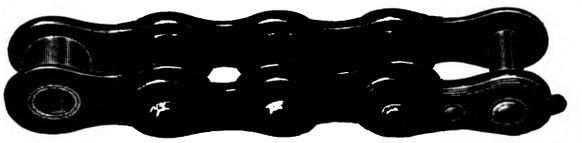
should be equipped with chains that will stand up under all conditions. You can depend upon the "Whitney" Chain whether in rain, mud, sleet or snow; they are always on the job. They give the maximum amount of service because they are made by men with years of experience in chain making.



When making replacements insist on a "Whitney."

"Whitney" Chains Are Built for Strains

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The matter is entirely in your hands. We offer you the agency for a machine that has a reputation behind it that is worth "much fine gold." Its performances are as solid as its reputation.

From coast to coast the Emblem is known as the "Transcontinental Flyer," the machine which holds the world's record for the best time between Chicago and New York, M. E. Gale making the distance in 35 hours.

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Single		Twin	
Battery or Magneto, Belt Drive, 38.3		67., Magneto	76.6, Magneto
$175	$200	$275	$300

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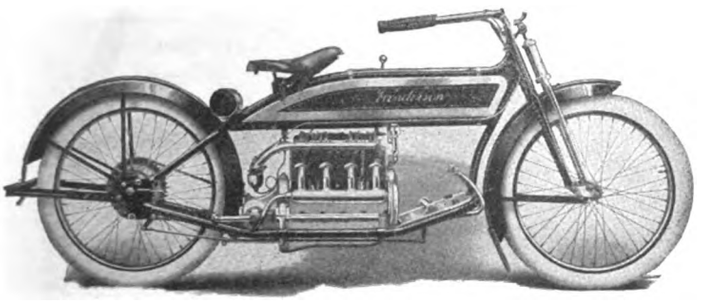


The 1913 Henderson 8-65
8 H.P., 4 cylinders; free engine; chain drive

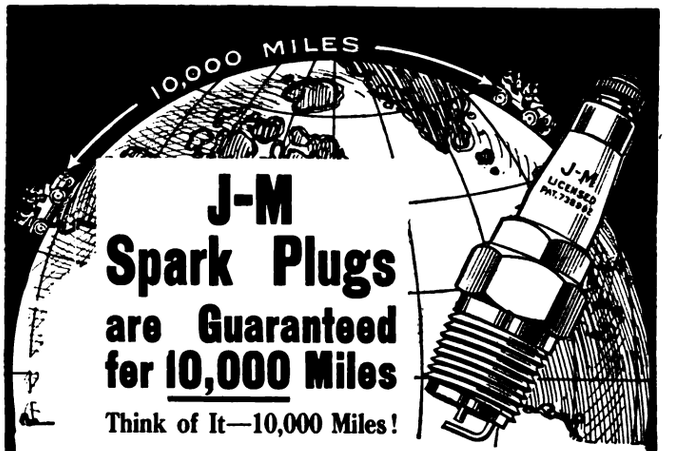
Rider and dealer alike, if you want the 1913 Henderson, should not delay.

And there's no doubt you'll want it after you've investigated—the one for its power and silence and comfort; and the other because of its great sales possibilities.

Investigate, both of you, by getting the details from us.

Henderson Motorcycle Company

1158 Cass Avenue **Detroit, Mich.**



J-M Spark Plugs are Guaranteed for 10,000 Miles

Think of It—10,000 Miles!

No other plug on the market is guaranteed so definitely by a responsible manufacturer. Could you ask for stronger proof of the superiority of J-M Spark Plugs.

Moreover, J-M Spark Plugs are guaranteed to be perfect in material and workmanship. We'll replace any plug that proves defective.

Every J-M Plug is doubly insulated—sheet mica around the electrode, and porcelain around the sheet mica. Break the outer insulation of porcelain and the mica still prevents short-circuit or current leakage, even when a magneto supplies the current.

All sizes of J-M Plugs can be used for either battery or magneto ignition. Sold by dealers, or shipped prepaid from our nearest Branch. Price, $1.00 each.

Our nearest branch will forward interesting booklet on request.

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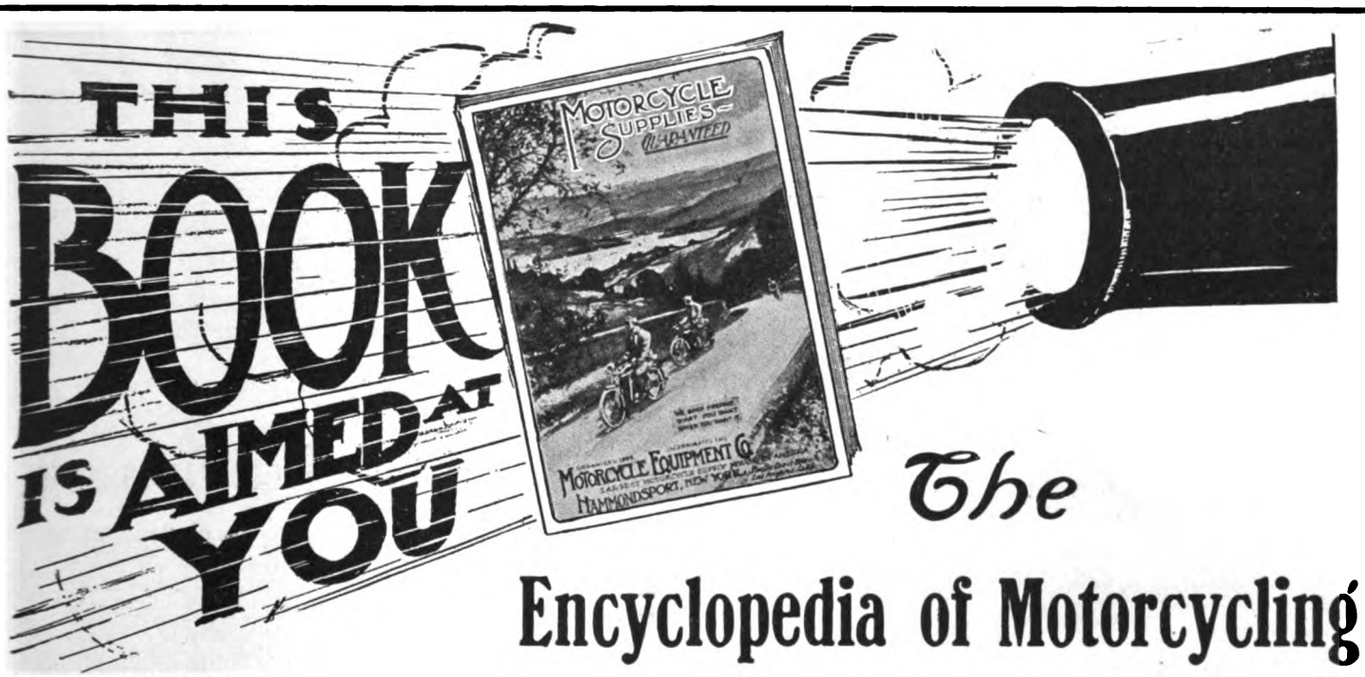

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The immense assortment our catalog contains enables you to buy just what suits your requirements and nothing else. The best is at your finger tips when you open this catalog. Prices are lower than ever.

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Riders! Yeur search fer perfect tandem cemfert ends here!

KATZMANN Eazy Ride Seat "MAKES RIDING A TREAT"

COMFORT

An upholstered spring tandem seat of velvety softness constructed on the "bed-rock" basis of experience, which has proven that a strong, rigid luggage carrier used in connection with an upholstered spring seat offers all the comfort minus the fragility of more complicated fittings.

CONVENIENCE

The Katzmann Eazy Ride can fit any luggage carrier. It is easy to put on and take off. The motorcyclist desiring a combination seat that is rugged and strong—that will meet every practical purpose, yet representing a small investment outlay, finds in the Katzmann Eazy Ride a seat that meets every requirement.

CONSTRUCTION

The bottoms are made of one piece extra selected spruce, ¾ inch thick, 10 inches wide, 14 inches long, especially selected kiln-dried stock.

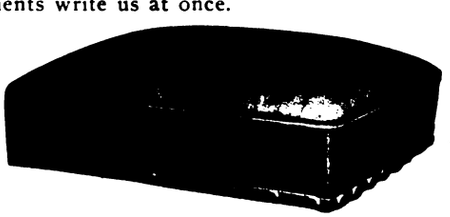
Bolts used in the Katzmann Eazy Ride of best cold-drawn steel money can buy—carefully made and tested.

Genuine springs, extra long oil tempered, arranged in a special swivel truss frame of our own. Each spring is allowed to work separately but at the same time holding its alignment. Five-inch upholstery, special arrangement of springs assuring absence of bulging in sides.

The burlap, staples, twine—even the nails are carefully selected to meet the requirements of this high-grade seat.

The filling is of a special combination, the result of months of careful experimenting and testing, and is fully guaranteed.

See it at your dealer. If he cannot supply your requirements write us at once.



FOR THE DEALER'S EYES

In selling the KATZMANN EAZY RIDE seat, we have maintained a standard set price—one price to all. And the dealer in turn is cautioned not to sell at a lower figure than the regular retail price.

The KATZMANN EAZY RIDE is, without question, the best seat on the market and, as such, should command a standard price.

We make the KATZMANN EAZY RIDE seat in three grades:

"A" Grade—Genuine Leather—retails at	$3.50
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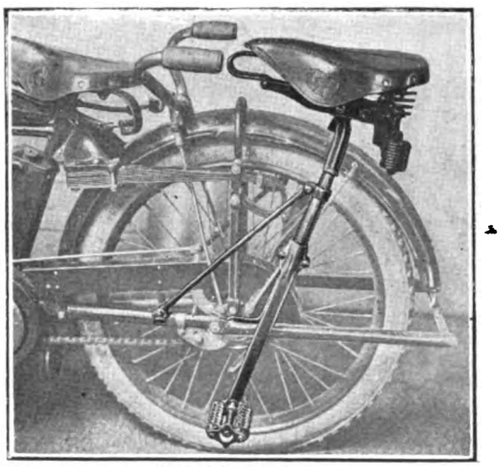
WM. KATZMANN SONS CO.
63d St., Ellis Ave. CHICAGO

"E. & C." Spring Tandem

"Makes Every Road a Boulevard"



Riding Made Easy and Comfortable

Especially Designed for Lady Riders.

(Patent Applied For.)

Note carefully the following exclusive features:

1—Equipped with BOTH compression and recoil springs, absorbing all downward and upward shocks and vibrations.

2—Lowest possible saddle position—only 32 inches from ground to top of saddle.

3—Built of cast steel fittings and heavy-gauge tubing, and strongly reinforced at vital points.

4—Has absolutely no side-sway, so common to most tandem attachments.

5—Equipped with handle bars, pedal foot-rests. Mesinger Standard No. 4 saddle. Nickel plate finish.

6—Pedal foot-rest leg made to swivel on tubing, which prevents snapping off in case of a fall.

7—Sold under guarantee of freedom from imperfections.

Retail Price, Complete, $16.00

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STOP THE SLIP

Belt transmission is acknowledged by all, to be the most satisfactory mode of transmitting power, when the belt is at its highest efficiency.

To keep a belt in this condition, it is necessary that it be dressed with the best belt dressing.

For this purpose you should use

Duncan's Belt Dressing

because it is positively, the best belt dressing on the market—bar none.

It will stop the slip, render it water-proof, allow it to run slack and double its life.

It is patented; is not a liquid and guaranteed to give satisfaction.

Sample and price quoted upon request.

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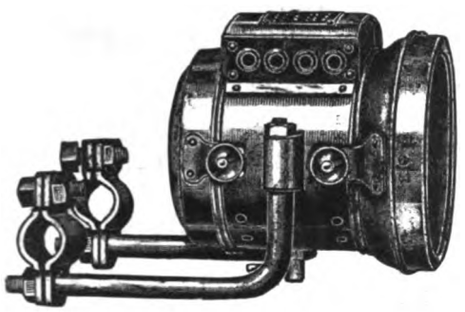

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20th Century Lamps

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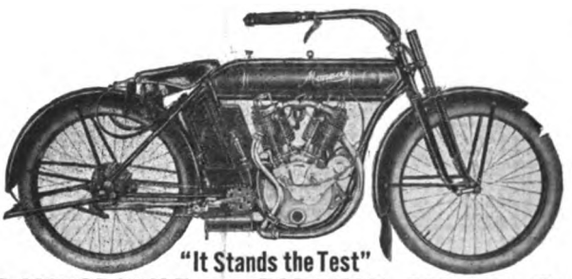

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"The Little Horn with the Enormous Range"

A tremendously powerful bulb siren. Practically indestructible. Absolutely positive in operation. Long range. A handsome, unique and durable warning signal. Price $5, at your dealers or direct.
Tear out coupon below and send with 10c. for catalog and one of our "Coventry Chain" pennants.

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"Bu-Rem"

Tandem Attachments for 1913 INDIAN

Price complete with Mesinger Superba Saddle $15
Price less saddle $10

Distributors for the Silent Indian, Cincinnati and Vicinity.

The "Bu-Rem" Tandem is the safest and only practical tandem for use

on 1913 Indians

Write for complete catalogue describing "Bu-Rem" Tandems, Electric Light Outfits, Crank Case, Protectors, Dust and Mud Shields.

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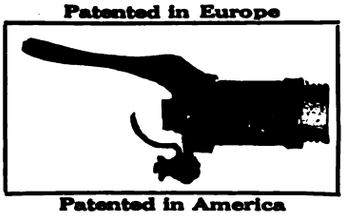
But the M&M Economizer Still Sells at $1.25

Patented in Europe



Patented in America

The M&M Economizer is positively guaranteed to save from 40 to 50% of gasoline, and increase the SPEED AND POWER 20% with less carbon. The only known carbureter adjuster on the market, and can also be used for priming the engine. IT ALSO ACTS IN THE CAPACITY OF AN AIR BRAKE.

With your throttle set at TWELVE miles per hour, by opening the M&M, your mileage will be increased to EIGHTEEN OR TWENTY miles with the SAME AMOUNT OF GASOLINE, and less carbon.

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The M&M is made with one ground valve seat and six portholes, which, when open, admit auxiliary air into the manifold. It requires a ¼" pipe tap to insert into the manifold, and is operated by friction hand control. If ¼" is too large, same can be reduced to ⅛". The M&M is nickel plated and highly polished. It is POSITIVELY AIR-TIGHT WHEN CLOSED.

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Dunellen, N. J., February 21, 1913.

Moller Bros., Philadelphia, Pa.

Gentlemen: I beg to advise the results that I have received from your Economizer are satisfactory thus far. Owing to the recent bad weather, a thorough test of gasoline consumption was impossible, but your Economizer gives all you claim for it in the way of added speed. I have installed it on a PIERCE single, and find that it increases the speed by giving a perfect mixture at all times, a thing which no ordinary carbureter can do. I am sure I will let you know favorably in the near future in regard to the gasoline consumption.

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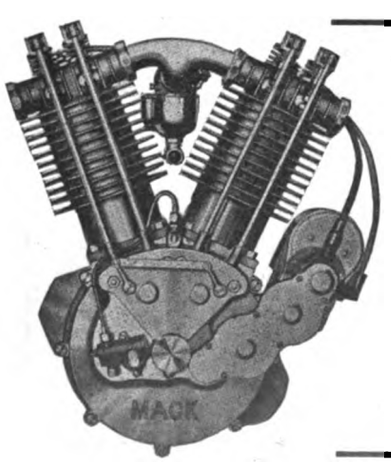

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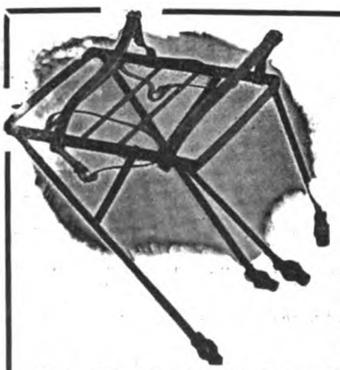

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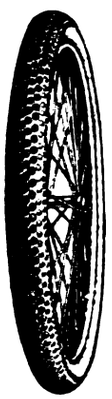

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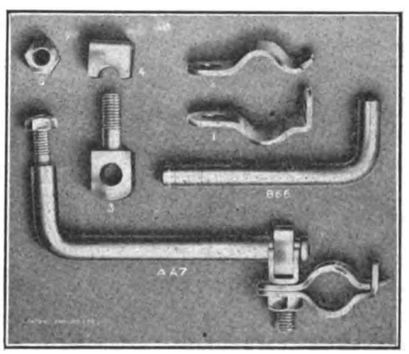

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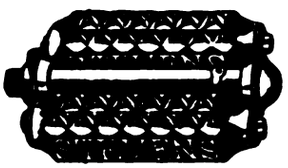

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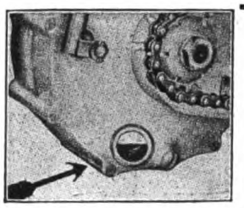

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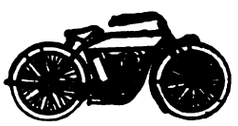

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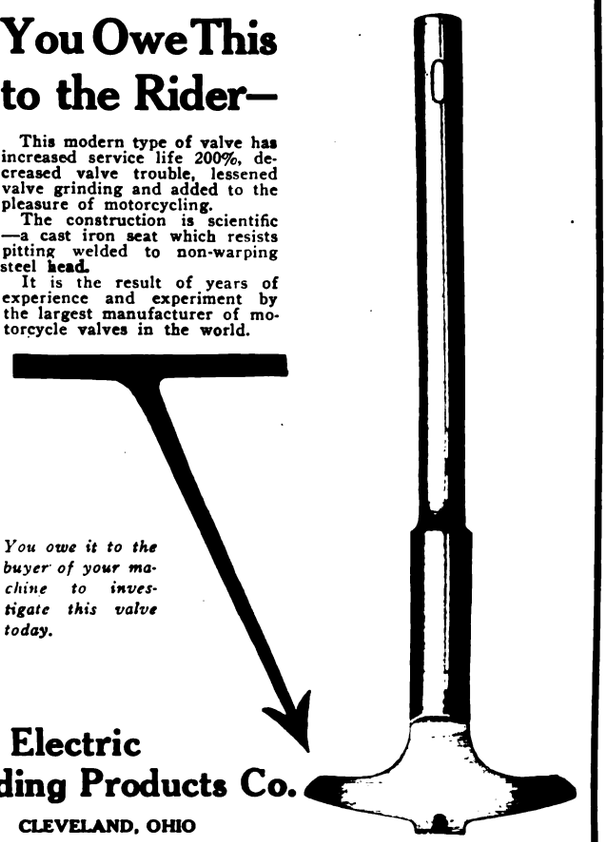

You owe it to the buyer of your machine to investigate this valve today.

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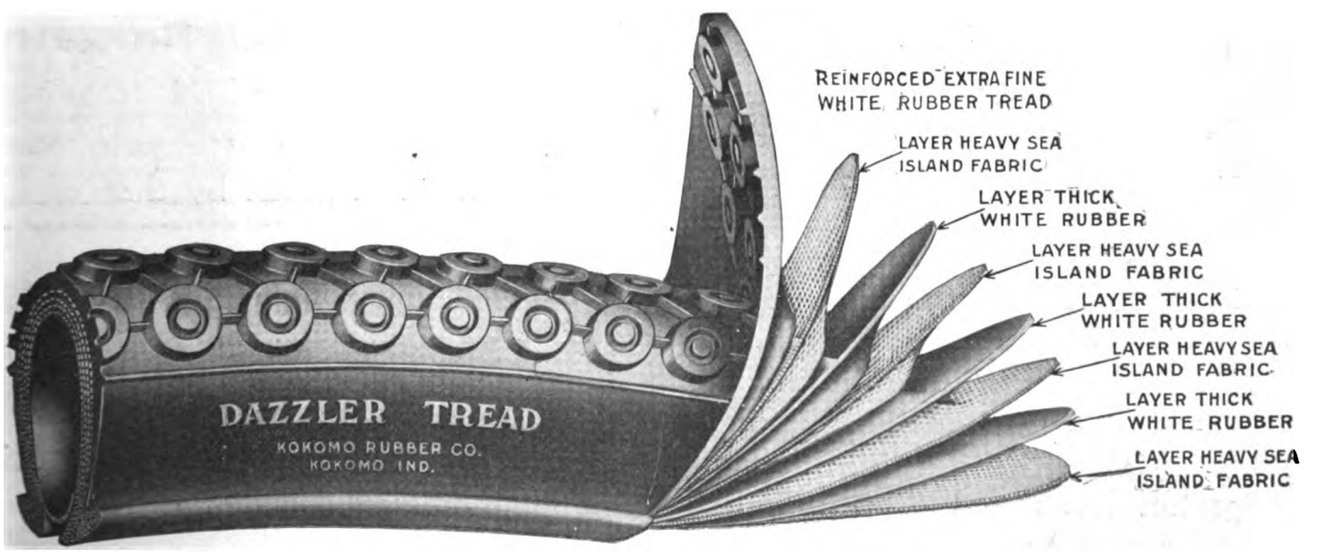

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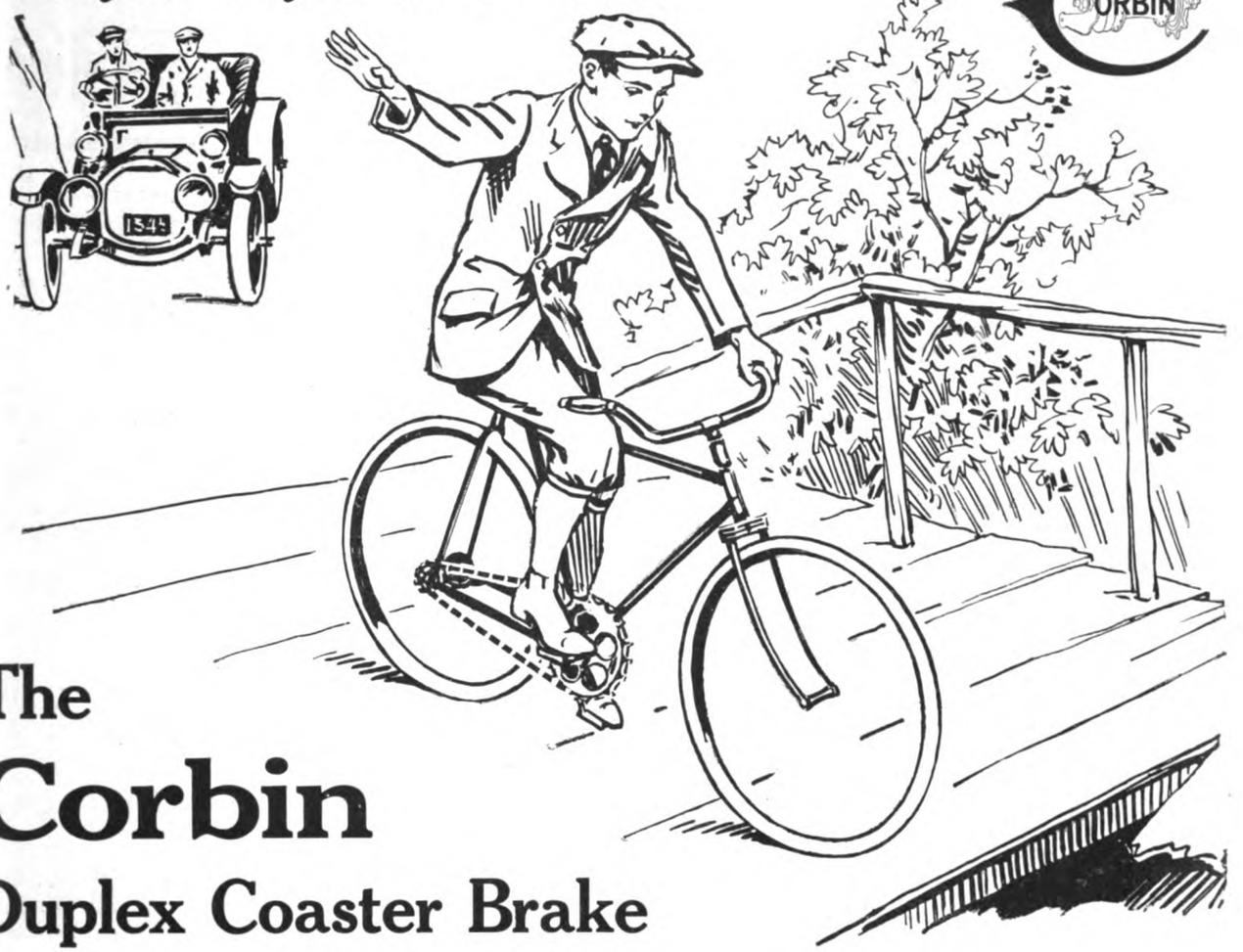

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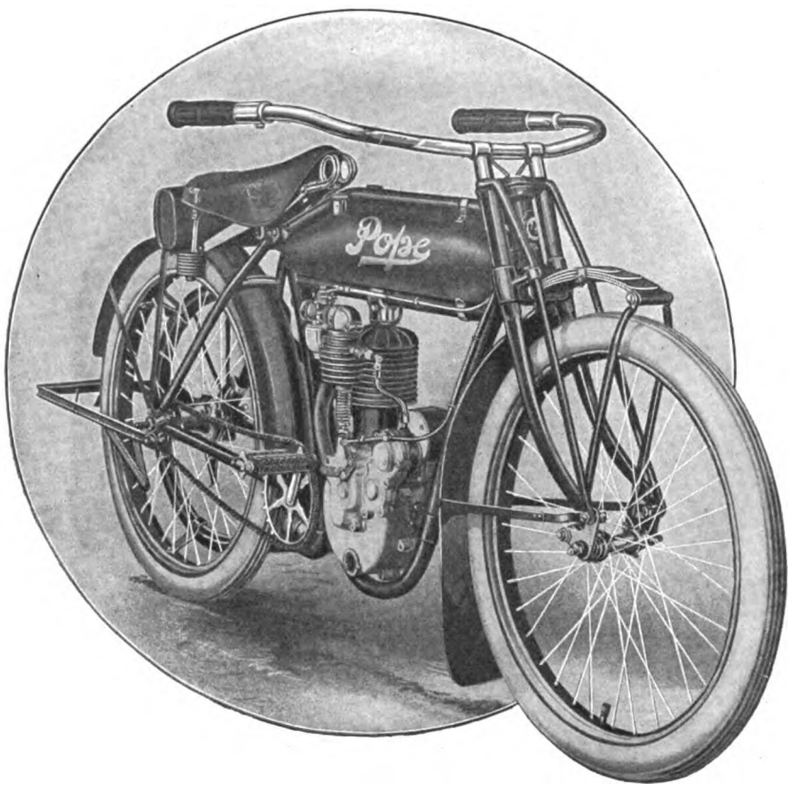

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Lightweight

A Prize Winner in India

Remarkable showing in India's First Tourist Trophy Race, run over rough and rocky course from Calcutta to Gaya, 297 miles.

Model H Defeats Leading English Machines of Greater Horsepower in Plucky Race

Out of the **thirty motorcycles which started** in the Indian Tourist Trophy Race, held January 25 over a 297 mile course from Calcutta to Gaya, **only eleven finished,** and among this number was a Pope Model H, which won eighth place in spite of being heavily handicapped by running out of gasoline between stations. All but two of the other place-winners were more powerful machines than the Pope.

The Pope ran splendidly all the way and would have made much better time had not the rider been careless in watching his gasoline. As a result his supply gave out 20 miles from the finish. T. Cameron, the Pope rider, then had to walk 14 miles pushing his machine until another competitor came along and furnished him with a quart of gasoline, enabling him to make a plucky finish and win a $25.00 prize. The Pope covered the 297 miles in 13 hours, 33 minutes, 17 1-5 seconds.

In its account of the race, "The Statesman" of Calcutta has this to say: "As a race, Saturday's undertaking was perhaps one of the most difficult so far accomplished by motorcyclists in India. It was a trial not only of speed but of endurance, and the principal feature of it was that **the lightweights triumphed right along the line."**

Send for Catalogue of Pope Line

Model L, Twin - - - $250	**Model K, Single Belt Drive, $200**
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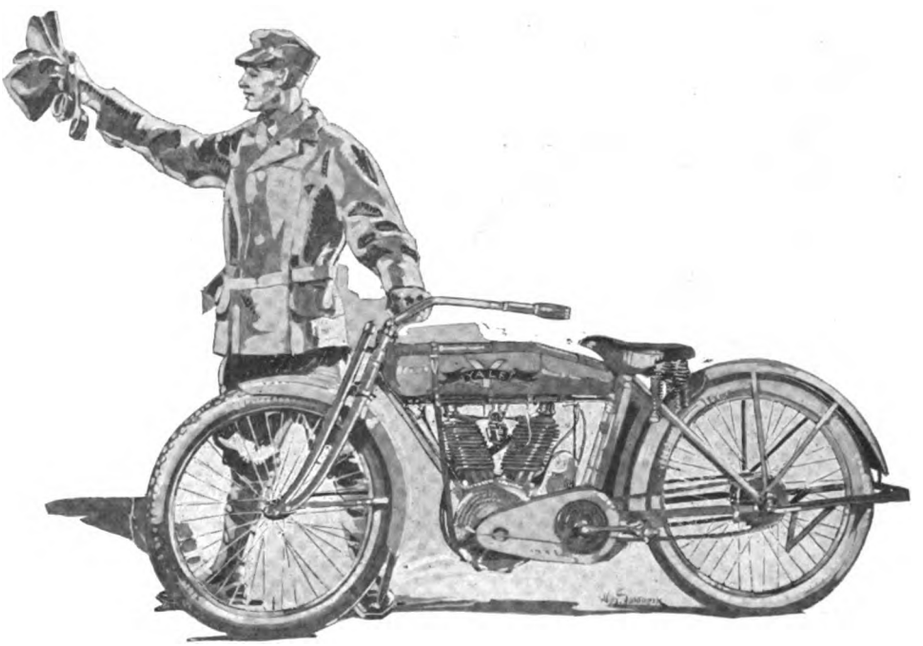
START the active riding season *right*—with a machine that will continue to be right all year. On a Yale you can start on the hardest kind of trips in full confidence, for you *know in advance* that you are going to succeed.



The steepest hills, the heaviest mud, or the deepest sand are always conquered by the indomitable power of the Yale twin motor. A turn of the grip brings its great reserve strength into use, and the "Big Y" forges ahead—the nerve of the rider is the only limit to its speed.

YALE forks are of triple-stem design, admitted by all mechanical men to be the strongest and safest type—no chance for the handlebars to twist out of line with the front wheel. Both sides of the fork extend all the way up and are connected to the handlebars and to the central stem by a substantial drop-forged crosshead. This removes strain from the fork crown and head by imparting the turning effect direct to the fork sides from the handlebars, and gives remarkable certainty of control and ease of steering on rough, rutty roads or in other difficult conditions. The use of drop forgings to reinforce points where heavy strains are met gives this fork stamina and endurance that bring it unaffected through tests that wreck less substantial types. The graduated system of long, specially tempered coil springs—which cannot cause hard falls by breaking at high speed—and generous rebound springs, effectually smooth out all unevenness of road surfaces. Its vibrationless cushion fork is one of the details that contribute toward the superior capability of the Yale.

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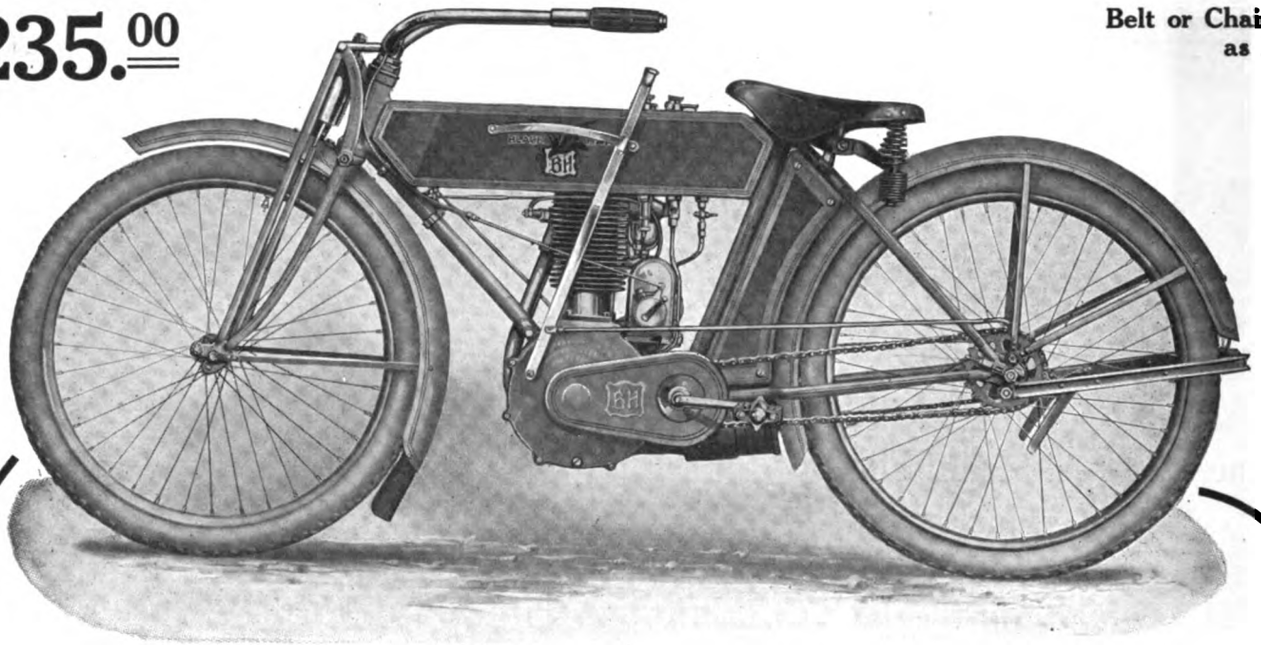

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2nd—Because we will live up to our agreement on deliveries, neglecting no one, no matter how few or how many machines their contract may call for.

Our first claim of superiority we can prove right now. For if you haven't learned all about the "Black Hawk" and its real value—we will send you our catalog so you can read of the remarkable points of advantage and sterling worth of the "Black Hawk's" design and the equipment which places it in a class far above the $235 asked for it.

Take our catalog. Read about the "Black Hawk." Compare it with any other motorcycle that you know of. You'll learn that this marvel of motorcycle construction excels not only in one or two features, but embodies so many good points, *most of them exclusive*, that competition cannot hope to rank with it.

For instance, take the Motor of the "Black Hawk." It is so flexible that it will take all speeds up to 50 to 60 miles per hour and down to 4 miles *without using the clutch.*

Then there's the Sight Feed Mechanical Oiler, so automatic in action that all that's necessary is to once adjust it and it regulates itself to speed at which machine is driven, the flow stopping when the motor stops.

Another feature is the Steel Tank Built Integral with Frame. A few of the advantages of this form of construction is that it adds greatly to the strength and stiffness of both tank and frame, positively prevents leakage, does away with a large number of objectionable small parts, eliminates pockets which gather dirt, makes possible large filler caps, which render funnels unnecessary and provides for Low Saddle Position.

This Low Saddle Position of the "Black Hawk" is a reality, the saddle rising only to a point of 29½ inches from the ground, allowing the rider to place both feet flat on the earth without straining.

There are a score of other good points about the "Black Hawk." Some of these are the

Spring Seat Post and Spring Fork which cannot bottom.

Improved Eccentric.

Improved Belt Tightener.

Free Engine Clutch, in rear hub, which makes rider master of the machine at all times.

Either of these features add enough value to the "Black Hawk" to make it the preferred machine wherever motorcycles are used.

Another good point in the "Black Hawk's" favor is its handsome appearance. The long, straight lines of the "Black Hawk," its clean-cut design, its real beauty and symmetry are worthy of more than passing mention. If you compare the design of this motorcycle with the ordinary type machine or those of the loop-frame construction you'll surely admit that you've never seen anything to equal it.

Trade Mark

BLACK HAWK

BH

RIDERS AND DEALERS

Don't fail to write for Our Catalog. It will aid you to a wise selection of motorcycle values. Book is the handsomest of its kind ever issued, as the "Black Hawk" is the best motorcycle ever built.

To back up all this, we will see that reasonable demands made upon us for orders are taken care of promptly. We want your business, because your interests are one with our own and because we are going to start the "Black Hawk" out right—

With Right Service Both to Rider and Dealer

We have the best of all motorcycles and a good seller for you. You ought to handle it. Ours is a good, straightforward money-making business proposition. You ought to be in on it.

May we not hear from you now asking for agency for your territory? It will pay you to write us to that effect.

Yours very truly,

BLACK HAWK MOTOR CO. Dept. B Rock Island, Ill.

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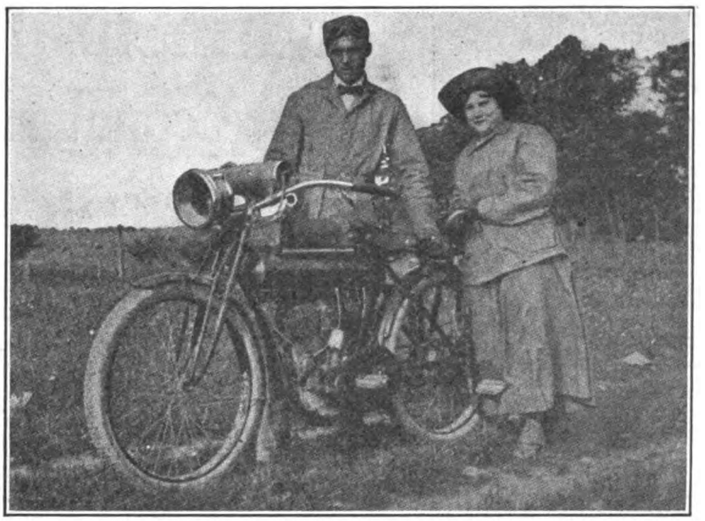

It Is Day In and Day Out Service That Counts

Read what Frank M. Elmer, of Watertown, N. Y., thinks of

THE FLYING MERKEL

"Last Spring I purchased a seven-horse twin Merkel from your local agents. I think I have given it more hard usage than any other machine in town, and still it runs as smooth, if not better than when I first got it.

"As you can see by the photograph of my wife and myself, the machine is equipped with a Merkel attachment for tandem riding. I don't believe I have ridden over 50 miles alone, and I have carried people weighing 91 pounds and from that up to 206 pounds for one man and 214 for another. The slowest speed made was six miles an hour, and the fastest sixty-five, but both were made when I was carrying a chum who weighs 176 pounds, so I guess it isn't bad.

"There is one thing I can say: **'They Balance**—The Flying Merkel and Rough Roads, and Other Makes and State Roads.'"

In the 1913 Flying Merkel, equipped with a Self-Starter and Two-Speed Free Engine Hub, riders are assured of even greater power, speed and comfort which, summed up, means greater all-around service and efficiency.

"The Flying Merkel made its name on Merkel Mileage."

HAVE YOU RECEIVED OUR CATALOG?

The Miami Cycle & Mfg. Co.
300 HANOVER STREET
MIDDLETOWN, OHIO
MEMBER M.M.A.

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The extra heavy tread on Continental-Erie Tires, the high-grade fabric, and above all, the flawlessly perfect molding of the heavy studs—these features explain why Continental-Erie Tires are everywhere known as "the tires of greater service."

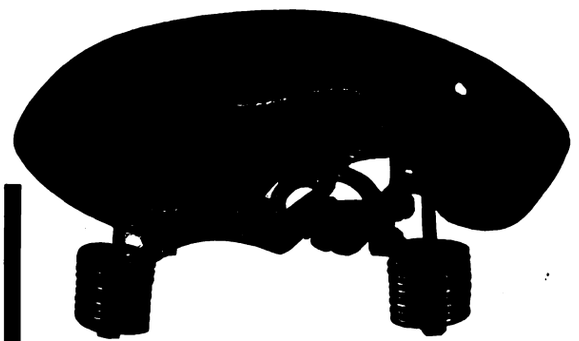
Continental-Erie Tires have conclusively proven their worth to Mr. Gale

Mr. M. E. Gale, the veteran tourist, uses Continental-Erie Tires because he trusts them. They have never failed him. On his memorable winter trips between Buffalo and New York in January and from Buffalo to Chicago in February, through howling blizzards, over frozen, rutty, almost impassable roads, his faith in Continental-Erie Tires remained unshaken.

That's what Continental-Erie Tires are for--hard work

Our motorcycle sundries line is distinguished for both completeness and that extraordinarily high quality which invariably characterizes "C. E." products. Ask the jobber, he knows.

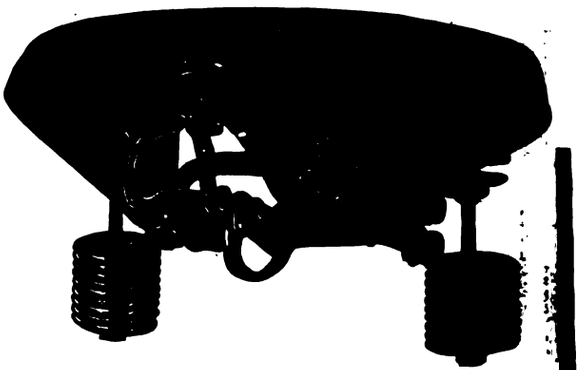
Continental Rubber Works
Erie, Pa.



WHILE THE

SUPERBA

IS SUPREME THE



Mesinger Standard and Cavalry

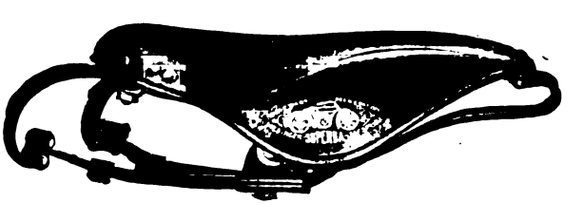
ARE A CLOSE SECOND

Do not gather from our continued praise and enthusiasm over the perfection and supreme comfort-affording features of the "Superba" that the Mesinger Cavalry and Standard saddles are no longer worthy of your careful consideration. While the Mesinger "Superba" is most comfortable, the most durable, the most perfect saddle made, the Mesinger Cavalry and Standard are still far in advance of any other saddle on the market, not reckoning the "Superba." We are still making many Cavalry and Standard saddles, and will continue making them so long as the demand continues in the volume which has distinguished it in the past.

We will be glad to send our catalog covering the complete Mesinger line upon request.

"Ask the Rider and

H. & F. MESINGER MFG. CO.



watch him riding"

144th Street and Austin Place
New York, N. Y.

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Thor

If it's good enough for the police it's good enough for you

The police want the best motorcycle. They want not only the fastest machine, but also a motorcycle that is under perfect control at all times—one that is always cool and ready. The Berkeley, Calif., Police Department is one of the many who have learned from experience that the only way to catch a Thor is with another Thor—Natural conclusion, the Thor is the fastest machine made.

Tremendous Speed

The reason for this speed is found in the Thor motor with its mechanical overhead intake valves, roller bearing connecting rods, the inimitable Thor undergeared internal gear direct chain drive. Result, perfect cooling, absolute silence and

Great Reserve Power

You can always coax a little more speed out of the Thor. Its perfect cooling combined with the famous Thor carbureter with improved twin air adjustments and butterfly valve—these make for that reserve power which every good motorcycle should, but very few do, possess.

Perfect Control

For loitering at a five-mile an hour pace and then making a quick get away to a fifty-mile an hour speed, the Thor is alone in its class. You will find a reason for this in the Thor improved ball-bearing free engine clutch, running in oil with the Thor improved double-grip control.

Thor Lubrication

We have paid what other manufacturers would call an entirely unnecessary amount of attention to the perfecting of the Thor oiling mechanism, but the result has been worth the effort. We challenge any other motorcycle manufacturer to produce as efficient an oiling system as the new Thor perfected force feed pump, oiling crank case direct.

The Thor Line

The Thor line comprises model 13-M, 4 H. P. Single at $225; model 13-W, 5 H. P. Single at $240 and model 13-U, a 7 H. P. Twin at $290. We will be glad to send our handsome catalogue upon request.

AURORA AUTOMATIC MACHINERY CO.

1307 Michigan Avenue CHICAGO

Pacific Coast Distributor: A. FREED, 1440 Market Street, San Francisco, Cal.

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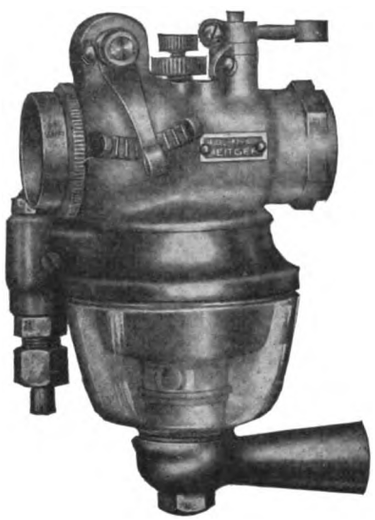
HEITGER MODEL K—1913

Made in ¾" and 1" pipe threads, and special threads for Spacke, Pope, H-D, Excelsior, Merkel, and Emblem, same list, ¾", $10.00; 1", $10.50. Where special fittings are needed, extra price. Has new air valve, no friction, or stems to wear, causing air leakage in low; air adjusted instantly from saddle, for starting, etc. Needs no priming in coldest weather. Furnished with glass or metal bowls, same price, the two being interchangeable.



HALF SIZE

Has new gasoline feed, two jets, one for low, one for high, with separate adjustments, giving minimum and maximum speeds. Owing to air valve action, etc., gives greatest possible speed to motor on minimum gasoline consumption. Light in weight, castings of aluminum, polished nickel plate.

Heitger Carbureter Co.

1129 Beecher St., INDIANAPOLIS, IND.

Standard

In Name and Quality

Never has there been a truer saying than the time-worn old adage, "It's the little things that count." And it is the degree of attention paid to these "little things," that determines oftimes the success or failure of a machine to "get across."

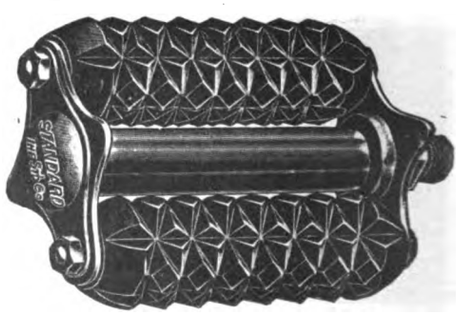
Wise manufacturers are equipping with Diamond "E" Spokes and Standard Pedals because they are quality goods—because they reduce the number of repair shop trips for the rider—because farsighted manufacturers realize that a motorcycle's weakest points are its strongest—and it is that infinite attention to detail which bespeaks perfection.

The dealer who looks ahead will stock heavily with Standard Pedals and Diamond "E" Spokes and Nipples. The motorcycles that are not so equipped will inevitably come to his shop for replacements and it is up to him to sustain his reputation for high-grade repair work by fitting Standard parts.

Everyone knows the superiority of Standard No. 3 Pedals, their deep, soft rubber cushions, the interchangeability of the rubbers, and the thousand and one other good features that are not found in other pedals. The feet cannot slip no matter how rough the going. And the perfection of Diamond "E" Spokes is proverbial.

The Standard Company

Torrington - Conn.



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Oilproof VACUUM CUP TIRES

For Motorcycles

"Automobile Tires Motorcycle Size" Means

The construction and materials are precisely the same as in the famous Vacuum Cup Automobile Tires even to the use of Sea Island Cotton fabric, which has over twice the tensile strength of other fabrics commonly used.

Also the same positive non-skid safety and the wonderful and absolutely oilproof quality. Thus these tires are the first and only tires to measure up to the wear and tear of modern motorcycle power.

With each Vacuum Cup Motorcycle casing goes a printed definite guarantee of

5,000 MILES

and the tires average far more than even this distance.

Dealers: Be ready to supply the demand so rapidly swinging over to Vacuum Cups.

Pennsylvania Rubber Company

Jeannette, Pa.

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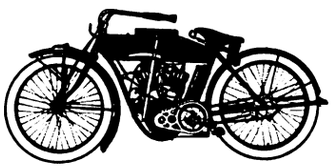

RELENTLESS FRICTION

How it ruins motorcycle motors. How the remedy must be determined

Without lubrication your motorcycle could run but a few times its own length.

Friction would then stop the power.

As oil saves power, it follows that one oil will save more power than another.

An important question is:

What oil will eliminate the most destructive friction in your motor?

Motors differ. Different motorcycles demand different oils.

We present here, in plain terms, the factors that must be considered.

This statement is from a company whose authority on matters of lubrication is unquestioned—the Vacuum Oil Company.

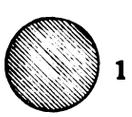

Figure 1 represents a type of lubricating oil in common use.

It has two serious faults.

First, its actual lubricating *quality* is low.

Second, its "*body*" or thickness is unsuited to the feed system of the motor it is used on.

It cannot feed properly. It cannot protect properly after the friction surfaces are reached.

Figure 2 represents a better, but still far from perfect oil. It has good lubricating *quality*. But its "*body*" is unsuited to the feed system of the motor. It cannot properly reach all the friction surfaces.

Figure 3 represents an oil whose "*body*" is suited to the feed requirements of the motor. But its *quality* is low. Under the heat of service it rapidly loses its power to protect the moving parts. It reaches the friction points but cannot efficiently protect them.

Figure 4 represents what your motor really requires—an oil of the highest lubricating *quality* whose "*body*" is perfectly suited to the feed system of your motor.

It properly reaches all the friction points. It protects properly after it reaches them. It is a complete lubricant.

With such an oil, practically your only friction is the friction of oil against metal.

You will find this grade of oil indicated in our complete chart of recommendations, which will be sent on request.

The recommendations in the chart were arrived at after a careful motor-analysis of the machines named. The oil's efficiency has been further proven-out by practical demonstrations.

If you use an oil of less correct "body," or of lower lubricating efficiency your motor must pay the penalty.

Some of the consequences are pointed out below.

Carbon deposit (excepting that due to faulty carburetion and gasoline combustion) is commonly attributed to the *quality* of the lubricating oil. Quite as often the fault lies with the oil's "*body*."

In some motors, a light-bodied oil will work too freely past the piston rings, into the combustion chamber. Lubricating oil itself is a hydro-carbon product. Carbon can never be wholly filtered out. When the oil works freely into the closed combustion chamber carbon deposit is bound to occur.

An unnecessary quantity of the oil is consumed. Ignition trouble, and in time, "knocking" of the motor results.

Another common result of faulty lubrication is **scored cylinder walls.**

The scoring is generally caused by the oil's low lubricating *quality*.

Or it may be caused by too-light a "*body*." In that case the oil fails to carry-through to the end of the piston stroke.

The piston rings then rub directly against the walls. In time they break. Scoring and scratching of the cylinder will result. Hissing of the motor follows.

Mobiloil

A grade for each type of motor

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A third result of wrong *"body"* or low lubricating *quality* is **worn wrist-pins.** This trouble causes a dull, metallic knock. In extreme cases the wrist-pins break.

A fourth result is **worn bearings.** The unnecessary wear is caused either by the low lubricating *quality* of the oil, or by an oil whose *"body"* is unadapted to the fit of the bearings.

The bearings in different motors differ widely. For proper lubrication they require oils of different *"body."*

A fifth common result is **loss of compression and escape of the explosion.**

The oil's actual lubricating *quality* plays no part in this loss. The escape is attributable wholly to the oil's incorrect *"body."*

With certain types of piston rings a light-bodied oil forms too-thin a film around the ring. Loss of compression, escaping explosion, and reduced power result.

There is no plain symptom by which this escape can be discovered—other than the lessened power of the motor.

TO avoid these troubles you *must* use an oil of the highest lubricating *quality*, and of correct *"body."*

There is only one way to determine the correct *"body."* That is, to carefully analyze the construction of the motor.

Any less-thorough method can only be a hazardous guess.

To meet this problem, each season we carefully analyze the motor-construction of every make of motorcycle.

Based on this analysis, and on practical experience, we determine the correct oil for each machine.

The results of these conclusions are compiled in a lubricating chart—which will be sent you on request. This chart specifies the correct grade of Gargoyle Mobiloil for your motorcycle.

The efficiency of the oils recommended has been thoroughly demonstrated in practical use.

In sheer lubricating *quality* they stand alone.

Oil of the *quality* and *"body"* recommended is an absolutely necessary step toward:

(1) The greatest horse-power efficiency.

(2) The smoothest operation.

(3) The fewest repair troubles.

(4) The lowest operating cost per mile.

(5) The longest life to your motor.

(6) The greatest second-hand value.

WE have here discussed lubrication with considerable assurance.

You may wish to know more about the basis for this certainty.

We will speak plainly.

Lubrication with us is both a business and a profession.

Throughout the world the lubricating counsel of the Vacuum Oil Company is sought by engineers who must meet the most rigid efficiency standards.

We are depended upon to determine the lubricating requirements and to supply the oils that meet them.

Our clientele includes thousands of manufacturing plants—located in practically every civilized country.

We supply the floating armament of the world's leading naval powers.

We supply practically all of the ocean greyhounds.

We supply the aeroplane fleets of the leading military powers.

Outside of the home field we supply over seventy foreign automobile manufacturers.

Mobiloil

A grade for each type of motor

THE matter of determining the correct lubricating oil for a given purpose requires both scientific study and broad, practical experience.

This experience we have applied in carefully studying the lubricating requirements of each make of motorcycle shown in our chart of recommendations.

This chart represents our professional advice.

If you use an oil of less-correct **"body"** *or of lower lubricating* **quality** *than that recommended, unnecessary friction, unnecessary carbon deposit, loss of power, and ultimate serious damage must result.*

In buying Gargoyle Mobiloil from dealers it is safest to purchase a full barrel, half-barrel or a sealed five-gallon, or one-gallon can. Make certain that the name and our red Gargoyle appear on the container.

A booklet, containing our complete chart and points on lubrication, will be mailed on request.

The various grades of Gargoyle Mobiloil, refined and filtered to remove free carbon, are:

Gargoyle Mobiloil "A"
Gargoyle Mobiloil "B"
Gargoyle Mobiloil "Arctic"

They can be secured from all reliable garages, auto supply stores and others who supply lubricants.

VACUUM OIL CO.

Rochester, U. S. A.

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HAMBURG Deutsche Vacuum Oil Co.	SHANGHAI Vacuum Oil Co.
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Distributing warehouses in the principal cities of the world.

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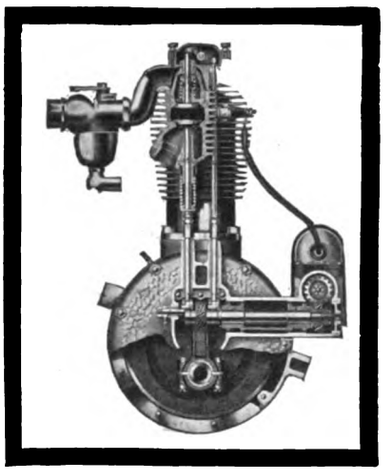
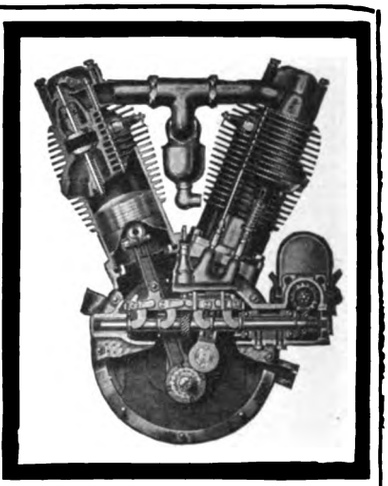


Silence is Golden



By reason of our improved cam and magneto drive, using a smaller number of gears, all of which are of the spiral type, our rigid crank shaft and the care exercised in fitting up,

DeLuxe Motorcycle Motors

are comparatively silent in operation.

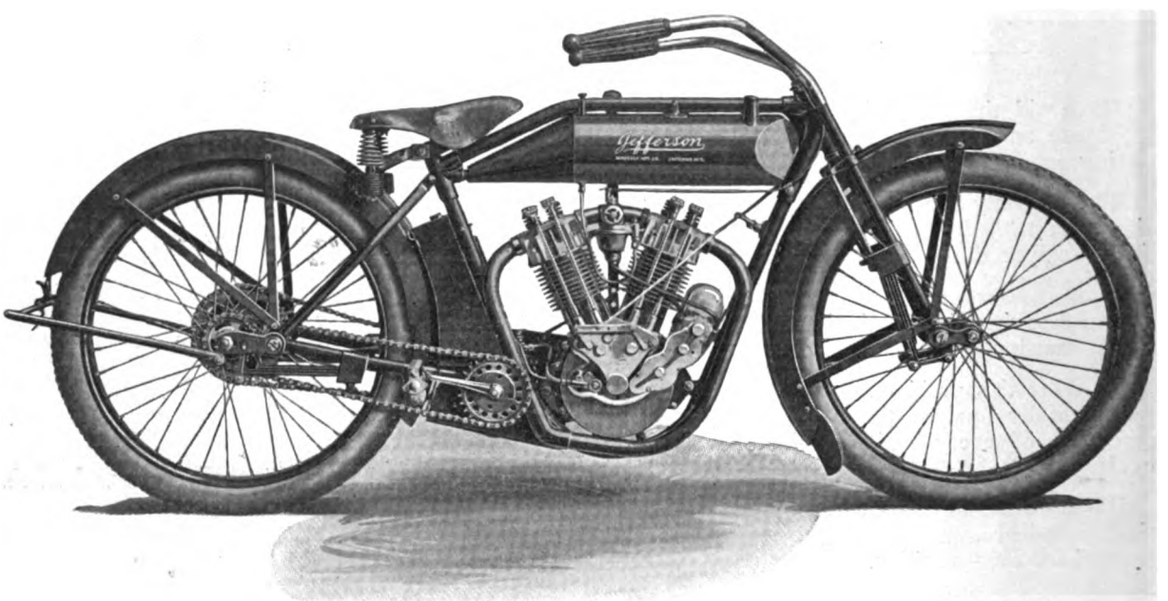
FOUR SIZES

4 H.P. Single Cylinder Motor
5 H.P. Single Cylinder Motor
7 H.P. Twin Cylinder Motor
9 H.P. Twin Cylinder Motor

The F. W. Spacke Machine Company

INDIANAPOLIS, INDIANA, U. S. A.

Boys, the Jefferson is There!



Just look at it! Note the automobile leaf springs, front and rear—the clean-cut powerful motor, with overhead valves, its perfect balancing. Note the absolute absence of superfluous parts, the simplicity of the grips, without clutch levers of any sort. Do you know what that stock motor can do, **without** special preparation or "tuning up" of any kind? Oh, only about 78 miles an hour! Don't you recognize the lines of the Jefferson? It's the old P.E.M. under a new name; that little single whizzer that beat twins in six races, winning 37 out of 47 races which it entered. Yep. That's the same machine, only doubled in speed and power.

Our catalog tells the rest. For the love of the Open Road, get it.

Waverley Mfg. Co., Jefferson, Wis.

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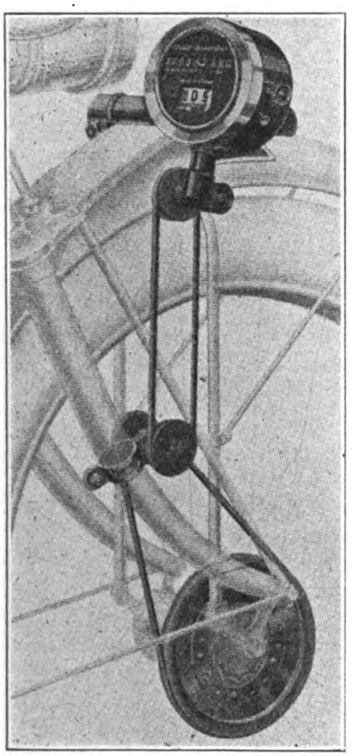
$12
Complete
Model D

75-mile speedometer; 100,000 mile season odometer; 100 mile trip register, which can be readily reset to any tenth of a mile without disturbing total mileage of season register, front wheel two belt drive complete with pulleys and brackets.

The New Stewart Motorcycle Speedometer

Magnetic Type

Showing the new Two-Belt Front Wheel Drive



HERE is the only practical motorcycle speedometer made. Just as accurate, reliable and complete as our most expensive automobile speedometers. Our Front Wheel Two-Belt Drive and manner of installation render it impossible for the speedometer to get out of alignment with its driving equipment, this because both instrument and driving equipment are attached firmly to parts that move in unison.

Is installed upon your mudguard or extension spring. As it thus is within the range of your headlight you can read it as easily at night as during the day. This is an exclusive feature not to be had with any other make.

Indicates accurately miles per hour, miles per day or trip; miles per season.

This special instrument is made on the famous magnetic principle. Over 95% of all the speedometers manufactured (for either motorcycles or automobiles) are now built on this practical principle.

For sale by dealers all over the world. Price $12 complete.

Write us for a handsomely illustrated catalogue which explains in detail, the many advantages and fine construction of this improved motorcycle instrument. This book is free. Write today.

The Stewart Speedometer Factory

1942 Diversey Blvd., Chicago, U. S. A.

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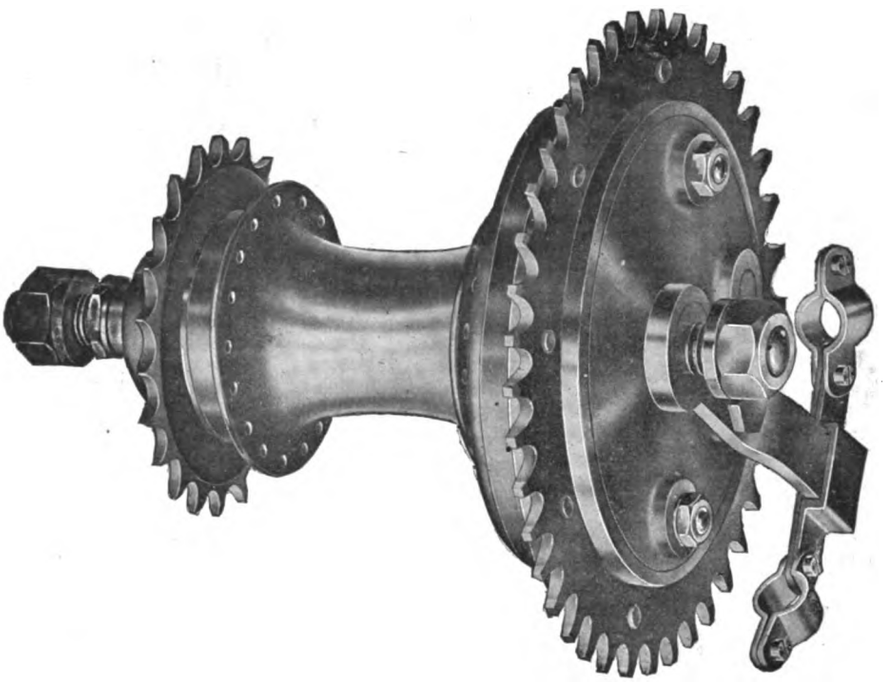

This Brake Was One of the Most Important Features of the Shows

It is exactly the same kind, type and design of a brake as is used in automobiles.

It is powerful enough to hold an automobile—or a motorcycle of several times the horse power of any now on the market.

It gives you everything the autoist has:—

Absolutely reliable control of your motorcycle under all conditions;—

Fool-proof—a brake that will not wind, bind or lock;—

A slight back pedaling pressure will exert a retarding force of a ton and a half.

You surely want to know about this newest motorcycle device.

Write for fully illustrated and descriptive literature.

The New Departure Mfg. Co. Bristol, Conn.

COASTER BRAKE LICENSORS

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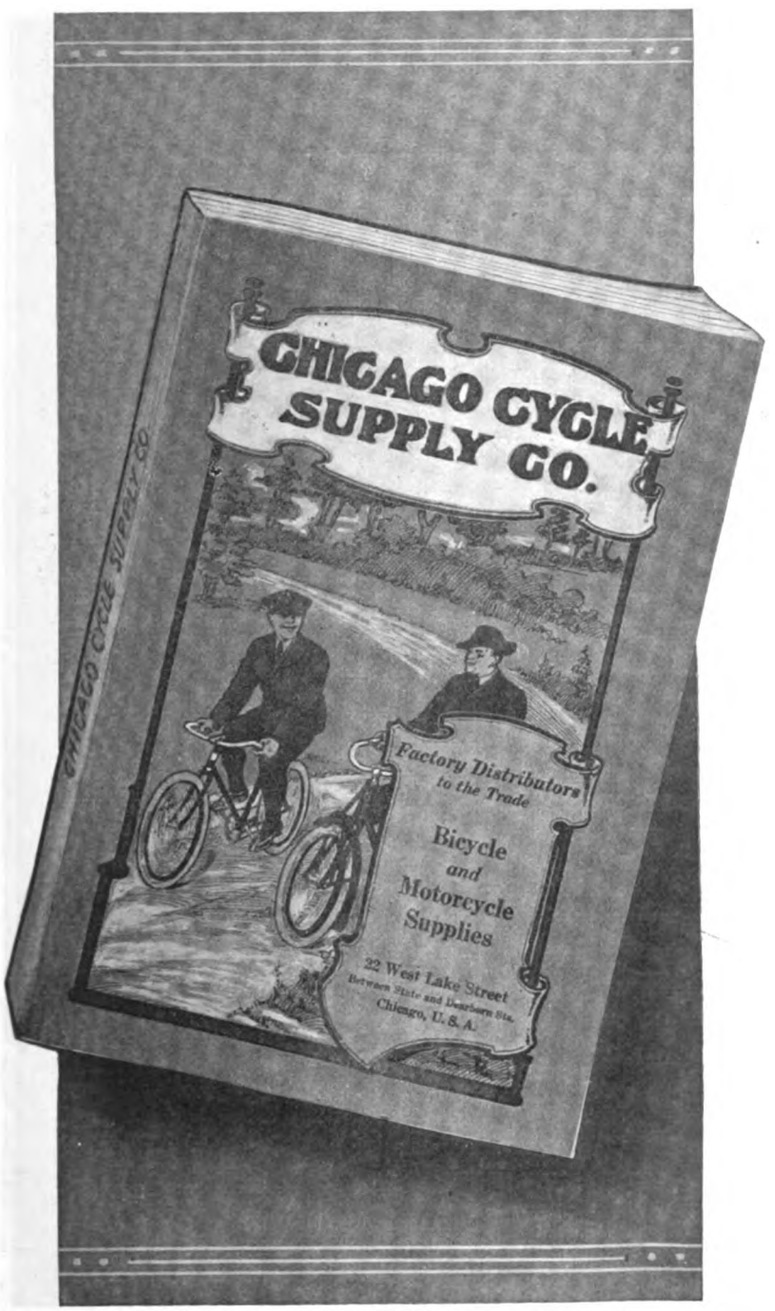
NEW 1913 CATALOGUE



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The largest and most complete exclusive motorcycle and bicycle supply catalogue ever issued. It is a veritable encyclopedia of the Motorcycle and Bicycle supply business. All the latest and best novelties, accessories and tools will be found listed therein at prices that are right.

This catalogue is for the exclusive use of the dealer and repairman. We do not sell at retail.

Mr. Dealer and Repairman: If you are not on our mailing list, drop us a card at once. It will be to your advantage to have one of these reference books on hand. It contains a great deal of information that will help you make your business a success. No motorcycle or bicycle store or repair shop should be without it.

We are prepared to give your orders the attention you desire, our stock being the largest and most complete in the country.

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FACTORY DISTRIBUTORS TO THE TRADE

MOTORCYCLE AND BICYCLE SUPPLIES

22 W. Lake Street **Chicago, U. S. A.**

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DAYTON

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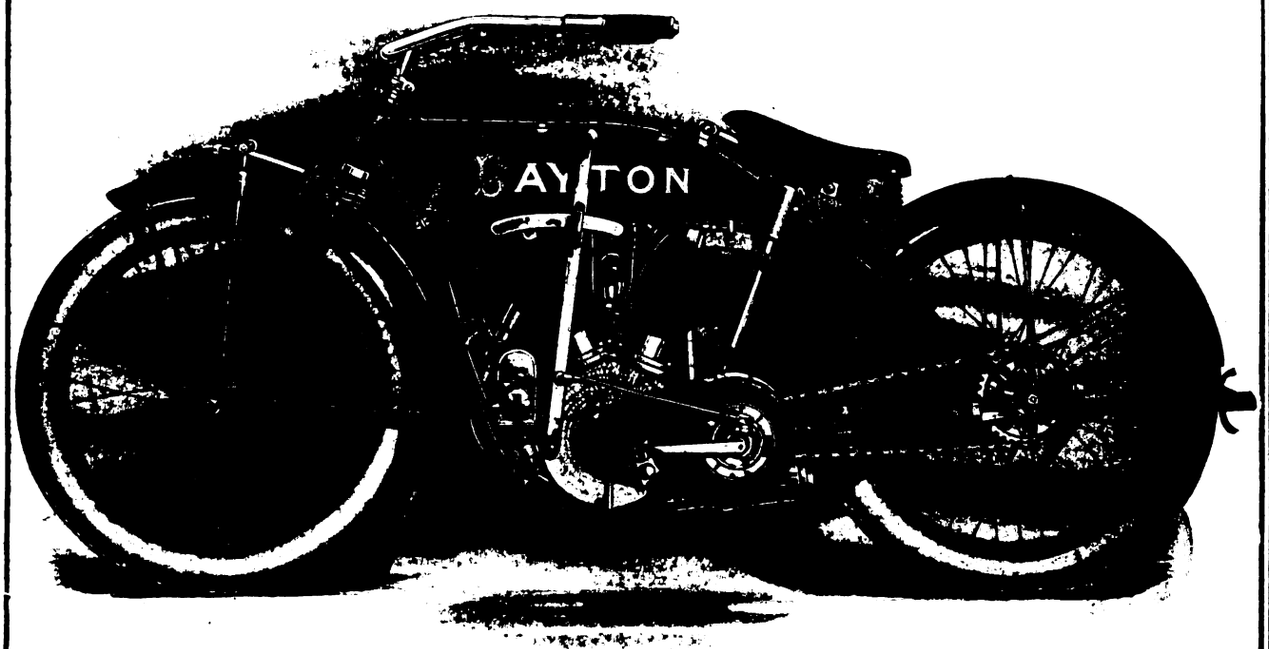

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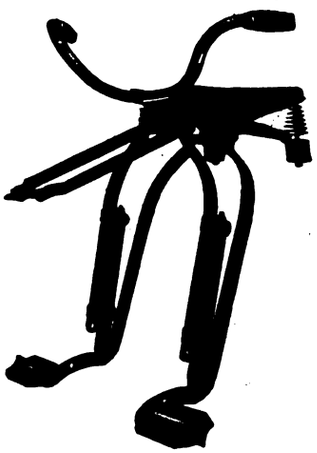

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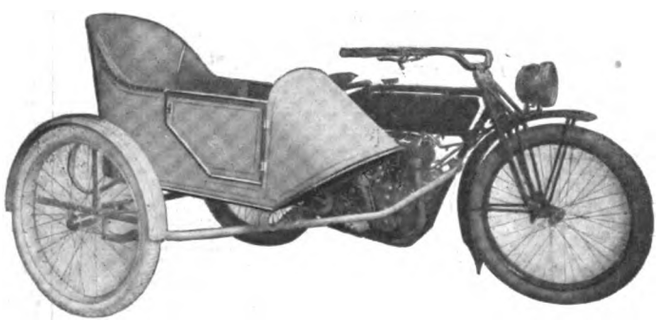

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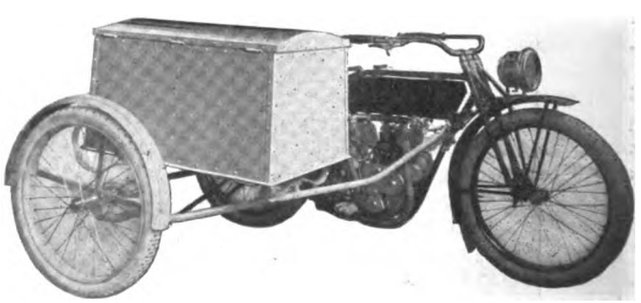

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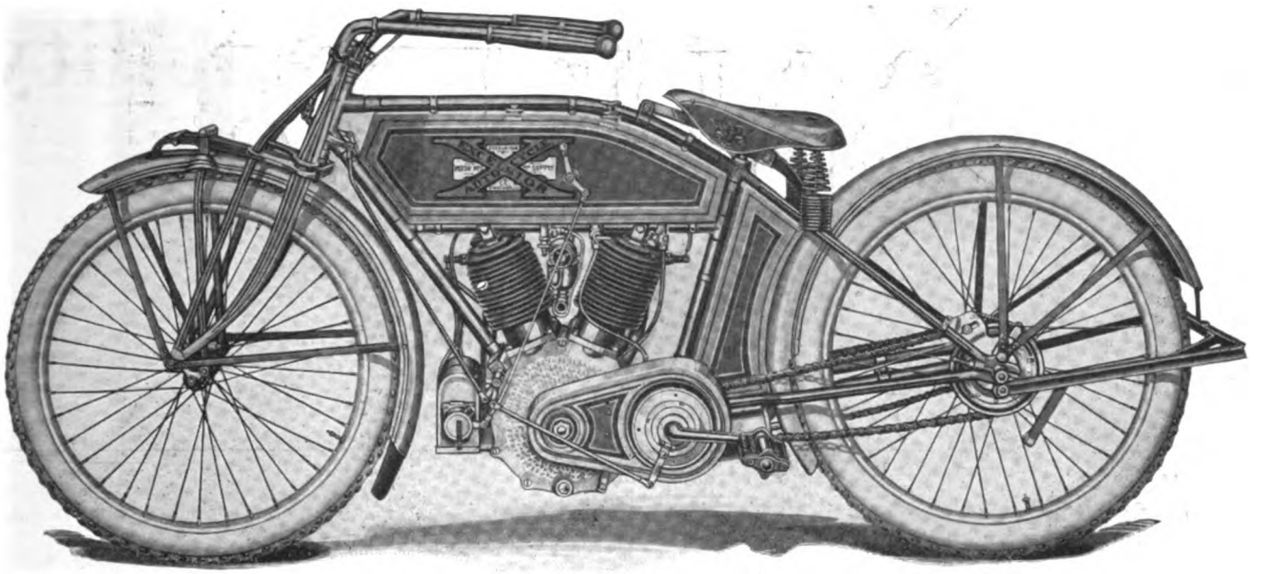

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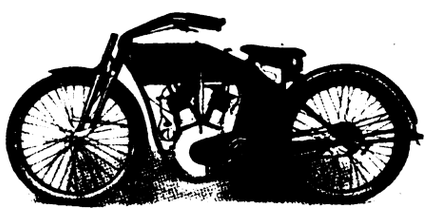

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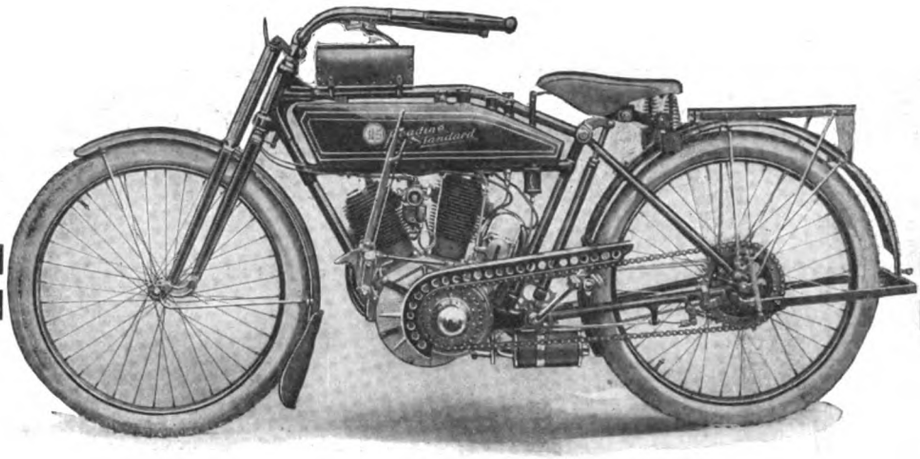

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That's the main question, isn't it?

"Looking at it from a common-sense standpoint, what is the actual market value of my motorcycle—not its value to **me,** but the actual value of each individual component part? Am I paying what I should for actual materials and labor, plus the manufacturer's purely legitimate profit, or am I paying an inflated price simply because it is the custom to do so?"

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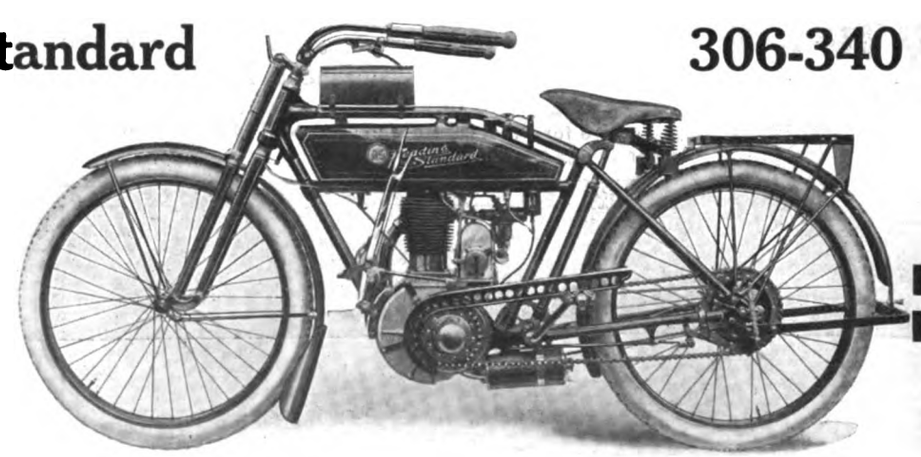

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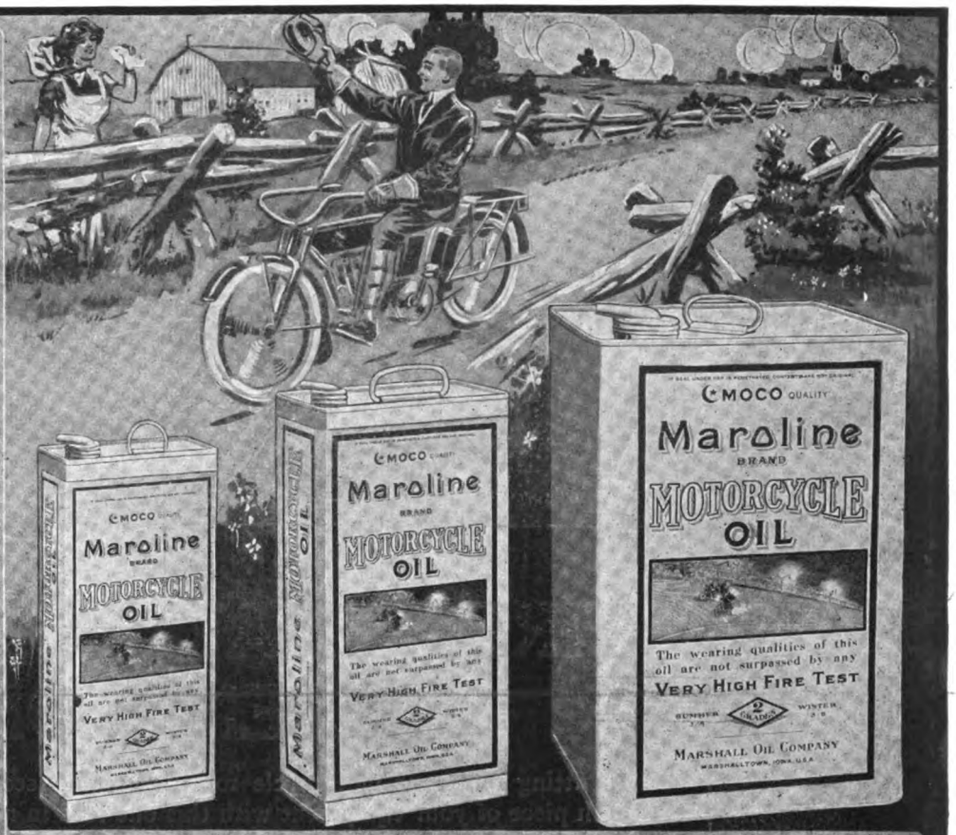

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You should supply every one of your dealers with a stock of these pennants. You should follow the method of one of the largest motorcycle manufacturers and tie a pennant on every machine you sell.

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When it comes to the tires, pick the tires that have offered the best proof of their reliability.

Pick the tires made by the concern that you can have the most confidence in.

UNITED STATES TIRES

measure up to both of these tests.

They have been known everywhere since motorcycles were first built as "good tires."

They are made by America's largest and most representative tire concern.

Why not try them?

They cost no more than you are asked to pay for other kinds.

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MOTORCYCLE ILLUSTRATED

51 CHAMBERS STREET NEW YORK CITY | THURSDAY, APRIL 3, 1913 | TEN CENTS A COPY ONE DOLLAR A YEAR

NORTHWEST CLUBS FAVOR ADJUSTMENT

Seattle M. C. Votes to Draft Resolutions Stating Conditions Under Which it Will Support Plan to Consolidate Western Federation With F.A.M., and Clubs in Portland and Tacoma Stand Unanimously for Settlement Along These Lines—Rousing Reception in Denver for F.A.M. Traveler—No Hearing in San Francisco.

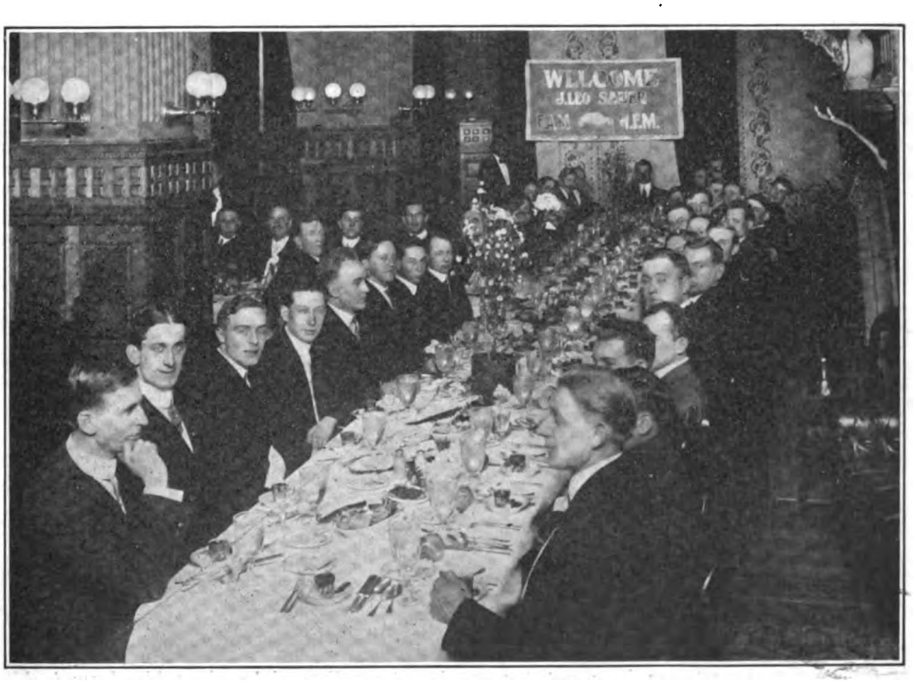
AS the result of an understanding arrived at following an enthusiastic meeting of the Seattle Motorcycle Club, during which Director J. Leo Sauer, of the F. A. M., and the officers and members of the club threshed out the Pacific Coast situation from every possible angle, there are strong indications that the Western Federation of Motorcyclists will be consolidated with the F. A. M. in reciprocation of concessions from the latter that are considered necessary to the well-being of the sport in coast territory. In Portland, Tacoma and Seattle the F. A. M. traveler was warmly received, and in the latter city a fine banquet was a feature of the program.

Prior to the banquet, Director Sauer devoted about forty minutes to a discussion of coast conditions and a delineation of F. A. M. policies, and he then invited the club members and guests to submit questions. They accepted his invitation in a business-like manner, and no phase of the situation escaped attention. During this discussion considerable progress was made toward an adjustment, and following the banquet the conference was resumed and continued until midnight.

Finally, at Mr. Sauer's suggestion and on motion of John F. Gorman, the chief organizer of the "progressive" movement, the club voted unanimously to have a committee of three draft a set of resolutions for action by the club, stating the conditions under which the Seattle M. C. would favor the consolidation of the two organizations, with the understanding that all W. F. M. members would become members of the F. A. M. It is regarded as most significant that Seattle, where the W. F. M. movement originated, is taking the first steps to bring about a satisfactory adjustment.

At Portland Director Sauer obtained a unanimous vote of the local club in support of the F. A. M. and about twenty-five memberships were received. The attitude of the riders was one of friendliness and there was plenty of enthusiasm. The same conditions were found in Tacoma, where the club gave a unanimous vote in favor of an adjustment. Both the F. A. M. representative and the clubs felt that the meetings in the Northwest had paved the way for a satisfactory understanding between the F. A. M. and the riders of the district, and the opinion was freely advanced that an adjustment was not far distant.

In introducing his resolution looking to the proposed adjustment, at the close of the conference in Seattle, Mr. Gorman brought forth hearty applause by the following statement: "If the F. A. M. will grant our reasonable demands, there is going to be 'some' F. A. M. in this part of the country." This remark appeared to echo the sentiment of the gathering, and was regarded as significant by those who wish to see the horizon cleared and harmony obtained as soon as possible.



Seattle Club at fine banquet which was a feature of the program arranged in connection with Director Sauer's visit.

On leaving the Northwest the F. A. M. traveler headed for Denver and arrived there on March 30 to find 300 motorcyclists at the station with their machines to welcome him. He was introduced by Harry N. Bursans, secretary of the Denver Convention Association, and later, in company with State Commissioner Whiting, President Beck, of the Colorado Motorcycle Club and Mr. Bursans, he was escorted through the city in an automobile. Following the car was a procession of motorcyclists three-quarters of a mile long.

At a big meeting in the club rooms on Sunday night the club voted unanimously to affiliate with the F. A. M., and the member-

(*Concluded on page* 44.)

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Around Mt. WASHINGTON BY MOTORCYCLE

By EARLE CHAMBERLAIN

TO begin with, I am not a long-distance rider. On the contrary, my usual pleasure trips take in, perhaps, sixty or seventy miles in an afternoon, covered leisurely (so the other boys would say), and I rarely "come home in the dark." So when I read in the magazines of riders coming jauntily home with smiling (if dirty) faces, after 250-mile spins over country roads and 150-mile mud-plugging expeditions, I somehow have a feeling that I am at the foot of the ladder as far as motorcycling is concerned, if I may even be said to have attained the lowest round.

However, I have motorcycled for the last four years, and, having covered some 12,000 miles in that time, have gone over about all the rideable roads in the vicinity of my home town many times.

One day last September I felt somewhat as Alexander must have felt when he sighed for new worlds to conquer, and, mentally weighing the allurements of possible rides within a reasonable distance, I decided that to go "around the mountain," as the 125-mile circuit of Mt. Washington is called, would provide a pleasant trip off the beaten track.

My usual riding companions were not able to accompany me, so I had to venture forth unaccompanied, and at 8 o'clock I got my Indian out and, having filled it to the brim with that necessary liquid which is soaring so high just at present, I headed straight for Mt. Washington.

SOME HILL-CLIMBING.

Before I had gone five miles I had a convincing demonstration of how desirable the lightweight construction of our motorcycles is. A big Winton car had been driven too far outside the ruts, and had buried its wheels so deeply in the soft mud that it was completely helpless. Of course, I helped the occupants as well as I could to extricate the monster, and an hour's work with shovels, levers and "language" (not from me) enabled it to scramble out upon terra firma.

The roads through Conway are excellent, and hitting up a fair clip on one straight stretch, I suddenly heard a snap and felt my machine slow down, while the motor threatened to tear itself from the frame. One of the clutch spring nuts had worked loose and allowed the cup to project sufficiently to hit the sleeve-lever, throwing out the clutch with great suddenness.

Conway has some magnificent roads, and the stretch through here and Jackson is always a treat. However, just beyond Jackson I was up against Spruce Hill, and it is "some hill." I didn't have to walk, but I did pedal, and strenuously, too.

I had to stop and photograph the old Glen House, from which the carriage-road up Mt. Washington starts, and then it was all down hill to Gorham, eight miles distant. I reached there at noon, having traveled fifty miles. Now I began to go round the mountain and head southward. Just out of Gorham I came upon a hill that from a distance appeared truly appalling, but I took a fierce rush near the foot, and the machine took me up in good style, my 4-horse engine pulling with a bulldog tenacity that surprised me, until it carried over the top without assistance.

Hill-climbing, after all, is the greatest charm of motorcycling. To feel the rapid throb of the little engine and the fierce rush of the wind in your face while you are carried up and up through the flying landscape—but wait, I am writing this for motorcyclists to read, and they all know the thrill of guiding a good motor up a long hill.

PICTURESQUE SCENERY.

I won't tell about the dog that charged out so violently; the incident is unspeakable. Let me say, however, that one dog received a liberal education upon the subject of motorcycling that will be of lasting benefit to him—and to other motorcyclists who pass that way.

I now found the roads to be better than ever, and my machine took the long grades over a broad leaf-covered highway in a manner to bring joy to the heart of any motorcyclist. This section is rich in beautiful views; Mt. Washington towers on the left, across the gently rolling meadows, while away to the west one looks over Vermont, the foot hills of the White Mountains having a soft carpet-like appearance under the setting sun. These scenes are in the towns of Randolf and Jefferson. Approaching Fabyans, I stopped near the beautiful falls in the Ammonoosuc River to take some pictures; then a few minutes' ride took me to the "New Mt. Washington" hotel, where I stopped to see a friend.

I left here at 3 o'clock for the remaining fifty-mile trip home and went past the source of the Saco, down the old "Tug-of-War" hill, and a few miles further on I paused to photograph the site of the old Willey House. The scenery here is wild and rugged, the rocky and treeless mountains frowning down upon the carriage road with almost appalling grandeur. From here on I took many pictures and upon reaching Bartlett I found two friends from Conway awaiting me; they led me a rapid chase to their home town.

Leaving them, I made the remaining 10 miles to my home in quick time, arriving about 5 o'clock without having experienced any of the troubles and difficulties that a few years ago the motorcyclist was supposed to be up against. My mileage since morning was only 128 miles, and I can fancy endurance riders looking with pity upon the record of my humble journey. It *is* a very ordinary ride when compared with the rather strenuous accomplishments of some of our record-breakers. However, this trip takes in about as many attractions as are to be encountered in one day's ride anywhere in New England. In closing, let me urge all motorcyclists who have never visited the White Mountains and who live anywhere in this corner of the country to make the trip in 1913. The roads through here are splendid, the scenery beyond description, the hotels excellent; and those who come once will want to come again. Before another winter arrives, be able to say that you have been to New Hampshire, and visited the White Mountains and know their beauty. You won't regret it.

Recent snowstorms have not prevented motorcyclists of Lorain, Ohio, from making their usual jaunts into the country. In the unusual photograph shown above seven Indian riders are depicted in the act of showing Jack Frost just how little they fear him.

MOTORISTS TO HELP POLICE

JOHN P. HOOPER, a Trenton (N. J.) motorcyclist, has formulated a plan to organize the motorcyclists of his state to assist the police in criminal cases. The idea has been submitted to a number of state officials and has received their hearty endorsement. P. E. Zimmerman, of the Kansas Short Grass Club, is behind a similar movement in Kansas. It is suggested that motorcyclists enlisted in this body be authorized to make arrests upon their own initiative; that the police may be free to call upon them for assistance at any time and that their service will be rendered free.

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A PLEA FOR FULLY-EQUIPPED MACHINES

Veteran Argues That Lamp, Horn, Speedometer and Luggage Carrier Should Be Included in Purchase Price

BY THE OLD SCOUT

THE bait that certain automobile manufacturers have been using for some time to delude people into buying their product is the slogan of "fully equipped." That phrase has indeed an attractive sound, involving, as it does, a considerable financial saving to the purchaser. There are a few signs that the day of fully-equipped motorcycles is approaching, and let us hope that it will not tarry over long. After a man has expended two hundred and fifty perfectly good dollars for a machine, it seems regrettable that the outlay must continue if he is to get the best service out of his investment.

It is surprising how few motorcycles one meets on the road that are completely supplied with equipment. A small kerosene lamp is often all that a machine can boast of. If more riders realized how the pleasure of the sport is increased by proper equipment, few of them would hesitate over the expense involved. Many new riders may not appreciate this point, and it is to such that the following lines are especially addressed.

A SPEEDOMETER NECESSARY.

A speedometer is regarded by many as a luxury: to me it is an absolute necessity. Aside from giving a rider the satisfaction of knowing "how fast she can go," there are other more practical reasons why a reliable speedometer should be on every motorcycle. First of all, you have a sure way of keeping tab on the oil and gas consumption. Note the mileage figure when you fill the tank; if the next time it takes two gallons of gas to fill it and the odometer has advanced a hundred and twenty miles, your machine is doing sixty miles to the gallon. One can quickly discover whether the machine is running as well as it should or not, by determining, for example, just what speed it should develop on a certain hill.

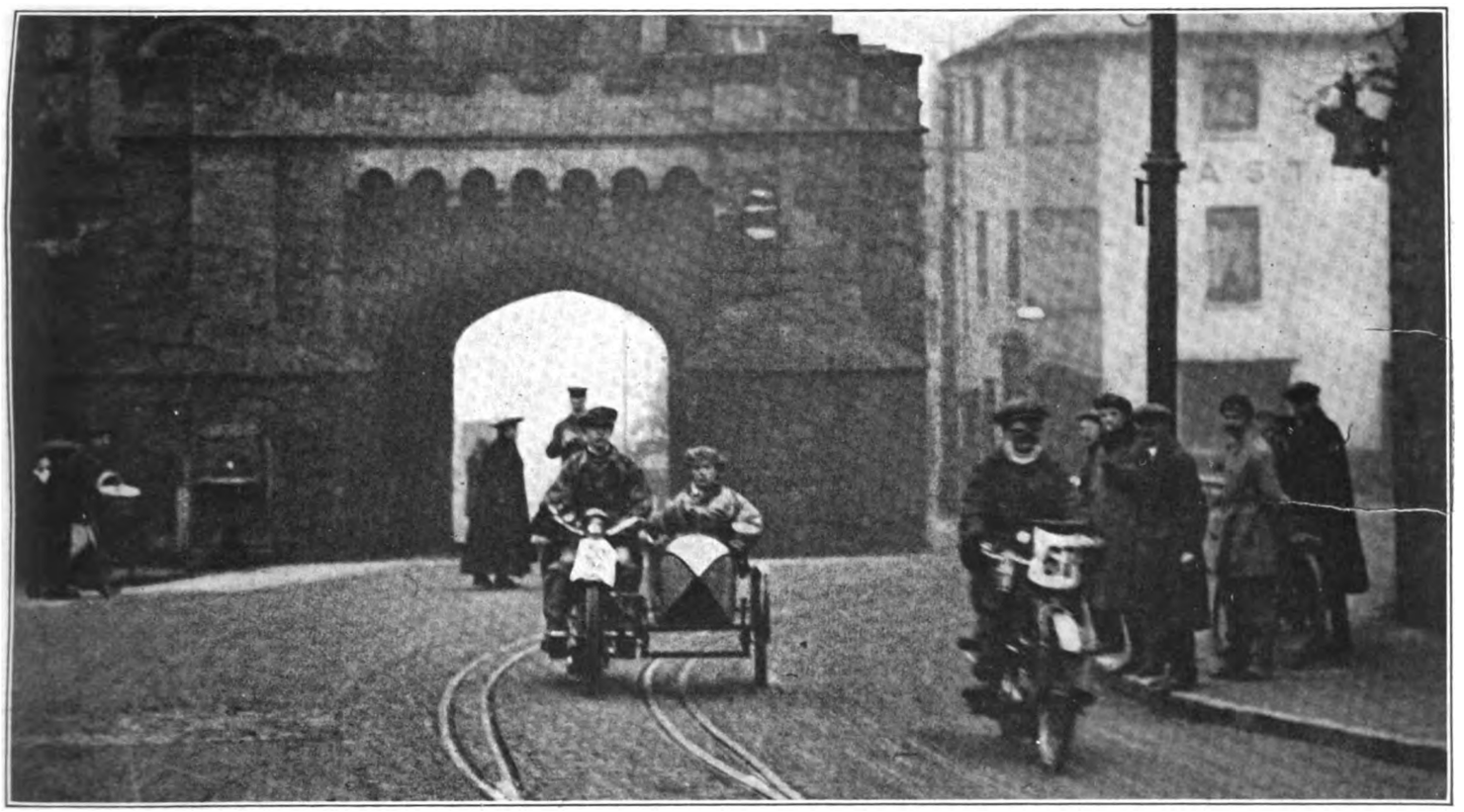
Don't think that a cyclometer will be a satisfactory substitute for a speedometer. My first machine was equipped with a cyclometer, and I was quite satisfied with it until one day, after I had covered a distance that I knew to be exactly twenty miles, the cyclometer reading was only fifteen. That ruined my confidence in the device, and I "blew" myself to a full-fledged speedometer.

It is hardly necessary to offer a plea for a horn, since this article is required by law in most places. It is better to buy a good horn to begin with than to experiment with a cheap and inferior product. The horn should be attached to the inside of the handlebars, so that it will not be ruined in case of a spill. See to it that the bulb does not vibrate constantly against the bar; that will quickly wear a hole in the rubber.

Don't waste any time with a small lamp. Get a good search light, whether electric or gas, and if the latter, don't tinker with a generator. The gas tank system costs only a trifle more, and is so much more satisfactory in the long run that it is really cheaper.

Another bit of equipment that is practically necessary is the luggage carrier. Several companies are recognizing this by fitting the attachment as standard on all models. This is a step in the right direction. You may think, when you buy your motorcyle, that you will have no use for a carrier, but just as sure as fate some day you will have something to carry on your machine, and no place for it.

There is yet one more trinket that is really a necessity, and it is a shame that it cannot be supplied on many machines—a tire chain. More than once I have wound rope on my rear tire, in the vain hope of getting a surface there that would grip and hold on slippery clay roads. My 1913 Indian was delivered early in February, when the streets were full of half melted ice and slush. I started out with a tire chain on the rear wheel, and so far have not had a single skid (I'm knocking on wood now). Most all 1913 machines have sufficient clearance between mud-guards and tires to allow these chains to be attached, and some older models also permit their use.



In the interesting picture above contestants are shown passing Warwick Castle in the recent Mid-Warwickshire trial in which 180 English riders started in spite of a downpour of rain.

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WHY GOOD OIL IS CHEAPEST

by ARTHUR · J · ROCHOW

CLOSE and practical contact with thinking motorcycle riders during the last five years, added to my personal experience in that period, has everlastingly instilled in me the knowledge that a good supply of the best oil adapted for motorcycle use is a real insurance against the repairman. Without the proper grade of oil for his motor the rider cannot hope for a cool "sweet-running" power plant. Oil is cheaper than repair parts. Manufacturers have long emphasized this idea, in the knowledge that it will lead the rider to provide himself with the means of getting the greatest satisfaction from his motorcycle.

It is at this time that many new riders are entering the motorcycle field and "breaking in" their 1913 models, and dealers and experienced riders would be passing along good advice if they would instruct the beginner to use the best motorcycle oil obtainable. It has been fully demonstrated in manufacturing and in road practice that varying grades of oil are required for different types of power plants, and it certainly stands to reason that a motorcycle engine presents conditions distinct from those found in any other type of gas explosive motor.

OILING FOR EFFICIENCY

The motorcyclist has a high-compression, high-speed reciprocating engine whose only cooling agent is the natural circulation of air about its radiating surfaces, and it is of prime importance that the cooling process be assisted as far as is possible by supplying a proper lubricant to all the wearing parts. When we reduce friction we reduce heat, and incidentally work for the longevity of the motor. It has been proved the world over that best results are obtained from specialization; we demand goods manufactured for a special purpose, and turn our backs upon makeshifts. This is the proper attitude, and we should apply it to our oiling problem. We would not drink impure water, if we could possibly avoid it, nor would we eat food that gave us no nourishment; on the same principle we should not supply our motorcycle motor with poor oil and expect it to put forth its best efforts.

I have found that it is very easy to notice the difference in the work of a motor when properly lubricated and when operating under lubricating disadvantages. If you have been using cheap oil, make a change and then try your machine out on a stiff hill. There will be a difference, and you will no doubt become a convert to the good-oil idea. Not long ago, in conversation with a well-known rider, I had conclusive evidence that good oil pays the biggest returns.

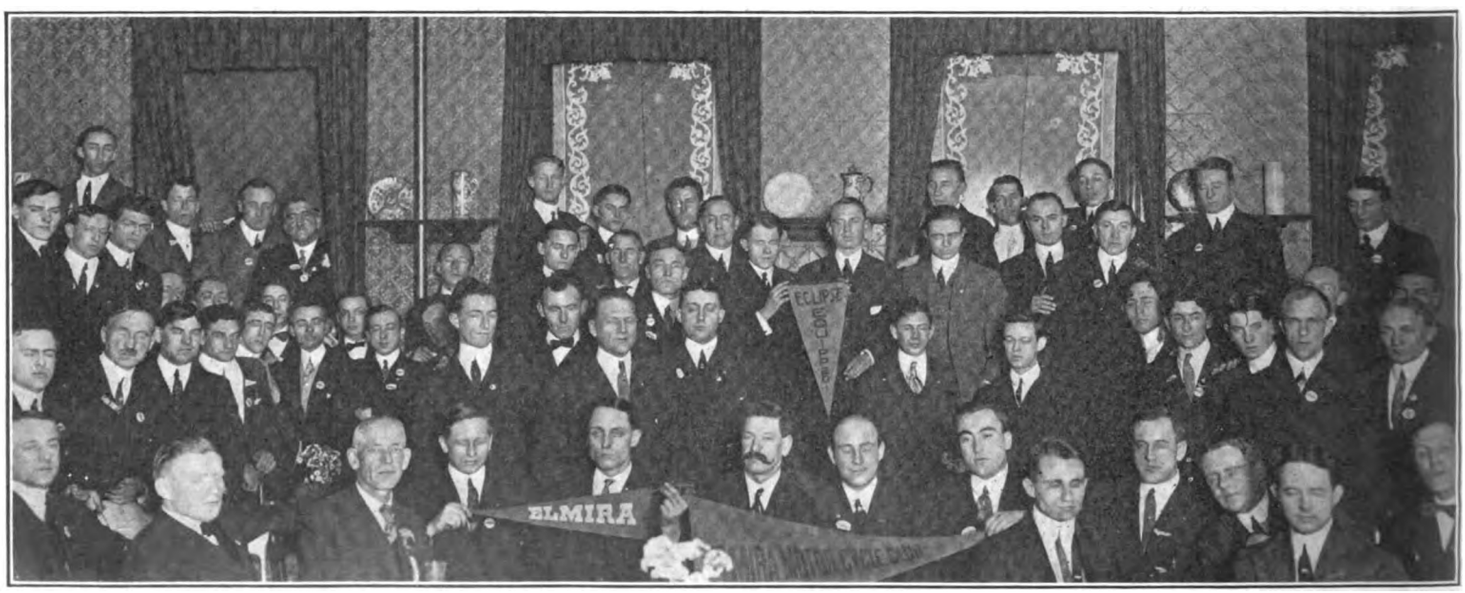
HOW HILLS TOLD THE STORY

This rider had returned from a journey of several hundred miles and was telling of his experiences. He stated that on the outward run his motor worked splendidly on hills and over rough stretches, but that on the return trip he encountered trouble. He had been obliged to purchase oil at a garage where the proprietor did not take into consideration the fact that special oil is required for a motorcycle motor, and, with his motor base filled with a cheap automobile lubricant, he undertook the homeward journey. After traveling about twenty miles the motor partially seized, and he was compelled to drain off the poor oil and obtain a supply of standard motorcycle oil before continuing on his way. After that he experienced no more trouble.

It is well to make the garage-keeper understand, if possible, that he may get you into serious trouble by supplying oil that is not suitable for your motor. If he raises the point that it does not pay to stock high-priced motorcycle lubricants give him a few figures relative to the number of riders on the roads, and explain that they must have good oil. This may not help you appreciably, but you will be planting good seed, and your advice may help some other motorcyclist who stops at that particular garage.

THE FUEL TANK NEEDS A PALATE

When they provided proper mechanical devices for forcing the oil to the parts that require it the manufacturers of motorcycles did well, but they cannot be present every time a tank is filled with lubricant, and for this reason their plans are often upset. It would be a good thing if we could have some sort of a palate attachment for every oil tank, so that the tank could reject any lubricant not suited to the needs of the mechanism it supplies, but in the absence



ELMIRA M. C. BANQUET

MANY out-of-town guests as well as a host of local riders were present at the recent annual banquet of the Elmira (N. Y.) Motorcycle Club. Representatives from the Rochester, Buffalo, Syracuse and Binghamton clubs were on hand. Ralph D. Webster, general manager of the Eclipse Machine Company, of Elmira, acted as toastmaster.

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of such an arrangement we must depend upon our own watchfulness.

The next time you converse with an intelligent repairman ask him why most motors wear out more quickly than they should. It is practically certain that he will blame improper lubrication. My personal experience has a bearing on that point. In 1911 I used a 7 h. twin machine to cover about 10,000 miles, and I am not what you would call an "easy" rider. I have many a brush on the road and trips of 200 miles or so in a day have not been infrequent with me, but I made it a point to use only good oil and at the end of the season I still had a perfect-running machine. I know that many of my friends found rebushing necessary before they had traveled one-fifth of the distance I covered, all because they were careless about their oiling. Finally I sold this machine, and so strenuously did I preach my doctrine of proper lubrication to the purchaser that he has covered about 5,000 miles with it and has experienced no mechanical trouble worthy of the name.

THE COUNTRY OIL-MAN'S VIEWPOINT

Well do I remember one vacation trip when I had the misfortune to run out of oil while we were traversing the country between Lake Champlain and Portland, Me. In the last large town we had struck I felt that my oil was running low, but I took it for granted that I would be able to obtain more along the route. As a result I was stranded about a mile from a small burg with my oil tank dry. There was enough of the lubricant in the motor base, however, to get me back to the village and, after waiting an hour and a half for the groceryman to return from church, I bought some very poor automobile oil.

My comment on the need of his carrying at least one good grade of motorcycle oil was met with the usual reply: "It wasn't worth while." By way of disproving my claim that a motorcycle power plant needed special oil he told me the time-worn story of the local man who had used maple syrup in his automobile motor by mistake and obtained satisfactory service. If an automobile could run on maple syrup the groceryman figured that a motorcycle certainly should be able to operate on a poor grade of automobile oil. That is the viewpoint of many a country dealer, so it will pay to exercise the greatest care when filling the oil tank at a wayside garage. This is not intended to apply to motorcycle dealers and repairmen. As a rule they are fully acquainted with the necessity for a good oil, and they will give the motor what it needs, but automobile mechanics are prone to argue that almost anything is good enough for a motorcycle engine.

MOTORCYCLE DEALER TO THE RESCUE

I traveled about ten miles with the motor car oil and in that distance my arm was tired from using the hand pump. Finally I saw the sign of a motorcycle dealer and I broke all records for draining my tank. Then I filled up with a reliable brand of lubricant and had no more trouble. It will pay you, Mister Rider, to get a gallon of the best oil obtainable for your motor and every time you leave home see to it that the tank is filled. The average tank will keep a machine supplied for 200 or 300 miles, and when your trip is to be longer keep an eye on your oil supply and watch for a satisfactory motorcycle station at which to replenish it.

Don't get stuck without oil. If you do, you will be in worse trouble than if you ran out of gasoline. The lack of gasoline will stall your motor, of course, but no damage will be done; if you try to operate your motor without proper oil you are certain to damage it—and also your pocketbook. If you are driving a new motor I would suggest that you keep it smoking a bit for the first hundred miles or so. Too much oil for a starter is better than not enough.

SAVANNAH M. C. RUN

Riders Will Celebrate Southern Memorial Day with 300-Mile Endurance Trial.

MEMBERS of the Savannah (Ga.) Motorcycle Club participated in a sociability run to Statesboro on Sunday, March 30. This marked the beginning of the season's long distance runs for the Savannah club. Heretofore their runs have been more or less informal, being simply 50 or 60-mile jaunts near the city. However, the officers now intend to hold such runs as the last one at regular intervals.

The committee in charge has completed arrangements for the 300-mile endurance run to be held on Southern Memorial Day, April 26, and Sunday, April 27. This will be held over the Grand Prize automobile course, which is ten miles in length. Part of this has recently been improved, while other sections of it are still in rather poor condition.

The start will be made at 2:30 p. m. on Saturday and, after riding the distance designated for that day, the contestants will return to the city. At 9 a. m. Sunday the boys will begin the second day's grind. The event is for members only, and there will be separate classes for twins and singles. Four prizes will be awarded in each division. Two trophies will be given; one, donated by the dealers, will be known as the Dealers' Trophy, and another, donated by O. A. Meyer, publicity agent for the club, to be known as the Press Trophy. The event will be run under F. A. M. sanction.

SAVANNAH CLUB'S FISH FRY

ABOUT 75 riders were on hand at the recent fish fry given by the Savannah (Ga.) M. C. Before the start President Williams gave a short talk relative to the club schedule. He stated that the Sunday runs would be held every other week during the season and announced a number of other events. Races will be held on the Fourth of July and runs to Beaufort, S. C., and Statesboro, Ga., are on the slate.

The riders paraded through the city and then out to Thunderbolt, where a short stop was made before returning to the city, and out to Kings Ferry. The accompanying photograph shows the boys at the latter point. Here each rider put forth his best efforts in an endeavor to do away with the fry, and as the squad was ready to get under way again the camera was snapped.

Savannah Riders at King's Ferry Where They Enjoyed a Feast on Recent Outing.

LEAGUE AIMS TO HELP SPEEDSTERS

NOT long ago Lee Humiston, the record-breaker, arrived in Chicago from the coast to enter a protest against a combination of the board tracks, as being in opposition to the riders' interests. He claimed to represent a union of the racers who wintered in California.

The Riverview track management claims to have shown him, however, that they are protecting the interests of the men whom they are compelled to count upon as the sole attractions to draw the crowds. It was pointed out that each rider will be allowed $3 per day for personal expenses; they will be provided with machines (all of one make and power), and repairs, oil, gas, etc., will not cost them anything. Regular prizes will be given for the league events while there will always be a few events in which special machines may be allowed to start. The races will be so arranged that there will be no splitting of purses and the heats of a race will not be so numerous as to cause exhaustion. The traveling expenses of all riders will be paid by the tracks, and arrangements are to be made whereby the "spare men" of a team will be afforded an opportunity at every meet for slicing off a piece of the money hung up.

"I think the boys will soon see that our plan will insure the permanency of the board track sport," declared W. M. Johnson, manager of the Chicago track and director of the F. A. M. "It will mean the return to competition in its real sense and this is what the people crave.

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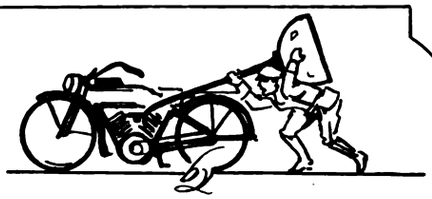
SOME FACTS ABOUT OILING



L. S. TAINTOR

IN the lubrication of ordinary machinery the oil manufacturer had a more or less simple proposition on his hands, for it was only necessary to supply an oil which would not wear out quickly and furthermore had what is known in the petroleum industry as "viscosity," or, more plainly speaking, sufficient body to keep the moving parts from rubbing together and thereby causing undue friction. Now, as the heat generated by the average journal or bearing which is not confined and does not come in contact with steam is only about 100 degrees F., and the temperature of the interior walls of the steam cylinder is really not much greater than the boiling point of water, i. e., 212 degrees F., the oil used for lubricating them does not need to have any remarkably high resisting power to heat, and the question of the oil burning up or vaporizing does not have to be considered.

Soon after the advent of the internal combustion engine, the manufacturers of oil found they had another problem on their hands, in order to properly take care of the lubricating requirements of this new type of motive power, for not only must the oil lubricate under high temperatures, but at the same time when it is through with that function and having worked its way out of the explosion chamber it must burn or vaporize as completely and cleanly as possible.

OFFSETTING THE CARBON EVIL.

When the internal combustion engine, such as now used in motor cars, motorcycles, boats, etc., first came into use in this country, it was thought that practically any kind of very heavy petroleum oil would be satisfactory for its lubrication, but it was soon found that the dark colored and black oils contained entirely too much "free" carbon, which was the cause of many of the earlier difficulties for this type of motor. In fact, carbon was so prevalent a trouble in the early days of gas engine propelled vehicles that the announcement of the oil manufacturer that he would guarantee his oils not to carbonize a motor within 200 miles of running caused much astonishment and was not generally believed by either the trade or the consumer.

A heavy-bodied oil was necessary for use in the old-fashioned gas engines, as their pistons and bearings were not accurately fitted and the greater "body," or viscosity, had a tendency to fill up the uneven surfaces and fittings and to increase and hold the compression. Later on, when gas engines were more highly refined in their adjustments, it was found that the lighter-bodied oils could be used with greater satisfaction, particularly on account of their containing less "free" carbon. This condition of affairs is now in effect in the motorcycle industry, and, notwithstanding the fact that the motorcycle engine has to depend on the lubricating oil to carry away some of the heat—to a much greater extent than does the water-cooled automobile motor—it is perfectly safe to state that within the next year or two all motorcycle engines will be able to use much lighter bodied oils than are used at the present time.

A great deal has been written and said about oils during the past few years, both from a technical and advertising standpoint, but of all the foolish and misleading statements the one that certain oils "contain absolutely no carbon" is certainly about as far wrong as it is possible for a statement to be, for all petroleum lubricating and burning oils are made up of varying percentages of hydrogen and carbon, and are, in fact, chemically known as "hydro-carbons." Therefore, the entire elimination of the carbon would mean the breaking up of the oil into some other chemical element. The writer verily believes that had Longfellow lived in the present day, he would have changed the line in "Excelsior," which reads "Beware of the pine tree's withered branch," to "Beware of the 'carbonless' oil," for one is almost as dangerous a proposition as the other.

OIL NOT ALWAYS TO BLAME.

Practically in every case where one experiences carbon trouble, he blames it on the oil he is using, little thinking that carbon deposits are oftener than not caused by a number of other conditions which may prevail in an internal combustion engine. About ten years ago when gasoline was plentiful—in fact, at that time it was really hard to dispose of the quantity necessarily made with the other petroleum products—refiners ran their crudes, as far as it was possible, to other products than gasoline. Consequently, the gasoline manufactured at that time was of a very high Baumé gravity, meaning very light in weight in its relation to the weight of water, and it was of a highly volatile nature. Quite naturally this gasoline would more readily combine with the oxygen of the air than would a lower gravity, or heavier product, on account of its gaseous nature, and when the mixture of this gasoline vapor and oxygen was burned or exploded in the explosion chamber of the cylinder, the combustion was very rapid and complete and a minimum residue was left to cause carbon deposits.

But with the increase in the number of gas engines during the last few years and the consequent large demand for gasoline the petroleum refiners found their position exactly reversed; gasoline was and is really scarce, the price of it is running up to figures which were never known before, and something had to be done to meet the demand. The only thing the refiners could do was to increase the percentage of yield of gasoline from a given amount of crude oil. This meant the producing of a lower gravity or heavier product that was not nearly so volatile in its nature, and in some instances we now find gasoline or what might more properly be called "motor fuel" which is of but slightly lighter gravity than ordinary kerosene.

Anyone can make a simple experiment and burn a small amount of gasoline and kerosene in partially covered cups; the first will flash off rapidly and leave practically no soot, the other will burn more slowly and leave quite a little soot or carbon. While the improved carbureters manufactured today will perform their functions satisfactorily with the lower gravity gasoline, it should be remembered that when it is used there is not always such combustion as there should be, and if the combustion is incomplete, there is a residue of carbon which under the heat of the explosion will bake on the interior of the cylinders, piston heads, valves and valve seats.

ROAD GRIT IN CARBON DEPOSITS.

When the percentage of gasoline in the mixture is too high, that is, when the mixture is "too rich," carbon deposits will form rapidly A mixture of this kind is indicated by a black smoke from the exhaust or by a strong odor of burned gasoline from the same place; also if the percentage of gasoline is too great, the motor will run sluggishly at low speeds and the explosions will be muffled.

No matter how good an oil is used, too much of it will cause carbon deposits on account of the inability of the heat of the explosion to burn off the surplus; this condition is readily shown by a blue or gray smoke from the exhaust pipe.

FROM J. E. FARRIS, of the Turlock Cyclery, headquarters for Harley-Davidson machines in Turlock, Cal., comes the accompanying photograph of the Harley-Davidson basketball team which has established a reputation for speedy work. "This team is one of the best in our district," writes Mr. Farris, "and is in its second year, it being a leader last year."

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Another thing of which very little has been written or said is that a careful chemical analysis of scrapings from the interior of cylinders of automobile engines very often reveals that they are largely composed of silicate. Now, as silicate is an element entirely foreign to either oil or gasoline and to the motor itself, we must look around and see how it gets into the motor and how it is formed. Silicate is but another name for dust or sand, and when the road dust is drawn through the carbureter with the mixture into the cylinders, it is there retained by the partially burned oil, and the terrific heat of the explosions bakes it onto the cylinder walls, causing hard, brittle deposits. In view of this condition it might be well to suggest to manufacturers of carbureters, and to designers of motors, that they modify or change their designs so as to prevent, as far as possible, this dust from being drawn into the interior of the gas engine. If they succeed in doing this, they will have removed one of the causes of deposits in the cylinders and also another cause of trouble, for if the dust gets into the crank case it certainly helps to wear out the bearings located there.

DANGER IN UNBRANDED OIL.

There is still another thing which causes deposits of carbon to collect. After a gas engine has been run for a certain length of time, the exhaust pipe and muffler are apt to become more or less clogged with carbon, dust, dirt and partially burned oil. This results in back pressure, and when the motor cannot exhaust freely carbon trouble appears again, only this time it is caused by the incomplete scavenging or cleaning out of the cylinder. Another thing which makes it important to have the burned or exploded gases carried off quickly is the necessity of having the explosion chamber clean when the suction stroke begins, for if the partially burned gases are mixed with the fresh charge of gas from the carbureter, the entire mixture will be weakened, causing a heavy loss of power.

Summing the entire matter up, the writer's advice to the motorcyclist who desires the best results from his motor and the least carbon is for him to use as high a gravity gasoline as it is possible to secure; to be careful to see that the motor is not running on too rich a mixture, this implying incomplete combustion; that too much oil is not used; to see that the exhaust pipe and muffler are clean and that there is a free passage for the burned gases; to keep as much of the road dust out of the carbureter and motor as possible, and, finally, to use only an oil of known merit and not some cheap, unbranded product which may be adulterated and which may cause damage amounting to many times the value of what is saved by its purchase.

CANADIAN CLUB RE-ORGANIZES

AT the recent reorganization meeting of the Calgary (Canada) M. C. the following officers were elected: George Bain, president; John Barr, vice-president; C. Leslie Munroe, secretary-treasurer; F. W. Sanguine, captain, and R. S. Chisholm, lieutenant.

REPORTS ON N. Y.-ALBANY ROUTE

Bulletins from metropolitan riders state that main roads to capital and westward are in fine trim for spring touring.

LATE road bulletins that have reached MOTORCYCLE ILLUSTRATED from riders of the metropolitan district are to the effect that despite the uncertain weather of the past few weeks excellent going will be found throughout almost the entire route from New York City to Albany. This announcement will be welcomed by scores of motorcyclists who have desired to take advantage of the present periods of semi-spring weather, and who have hesitated through lack of knowledge of the up-State roads. A rider who has been over the roads to Albany and as far westward as Syracuse several times during the last two weeks asserts that the most timid novice need not hesitate to travel them in their present condition. Referring to the trip from New York City to Albany he states that most of the run can be made "without jarring the ash off a cigar." While this statement may be open to qualification, in view of the fact that the rider in question is a hardy roadster who stops at nothing, it is safe to assume that the roads referred to are quite up to the mark.

C. A. Emerald, a sportsman of Willows, Cal., is shown in the above photograph as he appeared on his return from a recent duck hunt. On this occasion he brought down 36 wild geese, and the picture shows how he carried them back to camp on his Pope "4."

One of the riders in metropolitan territory who has a fund of first-hand information relative to New York State roads is Meeds Hulse, of Weehawken, N. J., one of the best known sidecar drivers in the East. A few days ago Mr. Hulse pulled up at 51 Chambers street with his 7 Indian and sidecar and paid a visit to the editorial department of MOTORCYCLE ILLUSTRATED, during which he discussed winter riding in general and road conditions in particular. He has made several business trips over the New York-Albany route of late, and reports it in almost perfect trim. He suggests that motorcyclists using this route should cross the Hudson at Newburg, instead of further up, as is sometimes done. His bulletins on the roads westward from Albany are almost as satisfactory. It is his custom to go up on the west side of the river to Newburg and cross at this point to the east side. From this point northward on the east side of the river as far as Albany he states that the roads permit of almost any speed the rider cares to take chances on. His experience on the roads above Newburg on the west side of the river is more limited, but he states that no motorcyclist need hesitate to include them in a spring trip. Between Newburg and Kingston, where there are optional routes, one close to the river and the other a few miles inland, Hulse recommends the latter. He reports that the river route is in good condition, but that the inland road has recently been improved and is now the more desirable. Hulse has used his sidecar on these roads during the winter.

CHICAGO SAUCER DAMAGED

THE terrific windstorm which swept through the Middle West on the night of March 23 was responsible for the partial destruction of the Chicago Motordrome. No less than 500 feet of the track and grandstand were carried away for a distance of 75 feet, and this section will have to be entirely rebuilt from the ground up. The judges' stand and paddock were also reduced to kindling wood. The hurricane formed a pocket under the ledge of the track and lifted it bodily into the midfield, turning it over.

Fortunately the man who built the track for Jack Prince is still available and has been engaged to make the necessary repairs. The official opening of the motordrome league on May 21 will not be affected.

AN ADDED ATTRACTION

IN addition to the lecture to be given by Chairman Sauer to the Cleveland riders, April 19, the Cleveland M. C. has made arrangements to have Harry Vail, county commissioner of Cuyahoga County, on hand to give a talk on good roads.

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BUYING the LUBRICANT

by STANLEY ROSEBERY

IMPROPER oil causes more trouble on a motorcycle motor than even poor fuel or a mania for tinkering on the part of the rider. With unsatisfactory gasoline there will be at the most a heavy carbon deposit and finally a complete refusal of the motor to run, while tinkerers rarely do more than effect a shutdown or "strike" on the part of the unfortunate source of power. But with poor oil, no matter how positively fed to the bearing surfaces, the least to be expected is abnormal wear followed by a catastrophe likely to involve the whole motor. A summary of the usual causes which lay up a motor for repairs will show that cheap or doubtful oil has been responsible for more replacements and repairs than all the other trouble-makers, with the possible exception of the rider's forgetting to give oil at all—or not enough.

Oil for the lubrication of air-cooled motors is an expensive article compared with that used in other kinds of machinery. All mineral oils are distilled from the crude petroleum originally, after a series of gases (rhigolene, chymogene), and light oils (gasoline, the naphthas and kerosene), have been obtained. Up to this point oils are usually alike, but in most of the good oils a refining process is next carried out. The result is that the high-grade oils thus obtained are free from any substance which will injure the bearing surfaces. Refining, however, involves care and considerable expense, and unscrupulous oil men cheapen the cost of production by adulterating the oil with various substances, a few of which are given here.

ADULTERATION AND ITS EFFECTS.

Oil for motorcycle lubrication must have a certain "thickness" in order to resist the "squeezing-out" tendency of the shaft in the bearing; it must be able to stand a great amount of heat before decomposing or "flashing." It must be clear and must not contain injurious additions to the bearings, as mentioned above. Refined oil being expensive, the adulterator, therefore, goes about obtaining the necessary "body" or "thickness" by using animal or vegetable fat in the mineral oil, or by adding aluminum or lead soap, and thus cheapening the production cost. He obtains the desired body in this manner when the oil is cold, but when it is heated there is a different story to tell. Animal and vegetable fats form acids which corrode the metal parts and burn at a much lower temperature than that of a good mineral oil, so that the bearing surfaces are destroyed and there is deposited a typical "fat" carbon. This carbon is very hard when cold, needing a scraper or chisel to remove it, and when warm soon becomes incandescent, resulting in the motor pounding in pre-ignitions and similar troubles. It gums the valve surfaces and piston rings also, causing loss of compression. When there is a soap adulterant in the oil it forms objectionable deposits of carbon in the cylinder as soon as the oil is thinned by heating, and decreases the flow of oil to the bearings.

But even if the oil is not "doctored" as above, it may be still unsuitable for use in a particular motor. The piston rings may be a loose fit (as when a motor is old), or they may be tight on a brand-new motor. The same oil cannot be used effectively in both motors. Most motors require different grades of oil in summer and winter, and the latter oil is generally the lighter in body and has a lower point at which it tends to become thick. To illustrate further, the diversity in oils, the writer once had the use of a little air-cooled twin for the lubrication of which a high flash point *steam engine* oil gave the best results. Ordinary motorcycle motor oil was totally unsuitable for this motor, being too light.

It is generally a mistaken idea that only one make of oil is suitable for a particular motor This idea has been fostered to rather too great an extent by motorcycle agents who wish to make a bigger profit on an article bearing the name of the motorcycle manufacturer than on other brands. There is no doubt at all that the manufacturer knows just what kind of oil gives best service in his machines, and the writer strongly advises every rider to use such oil when it can be obtained. But what if the rider cannot get his particular brand? Recourse must then be had to the oil manufacturer who can give him another oil suitable for his motor. He can get this oil by asking his dealer or garageman for it, but what proof has he that he is getting just what he asks for. He has little to depend upon except the color, and this is generally of little value.

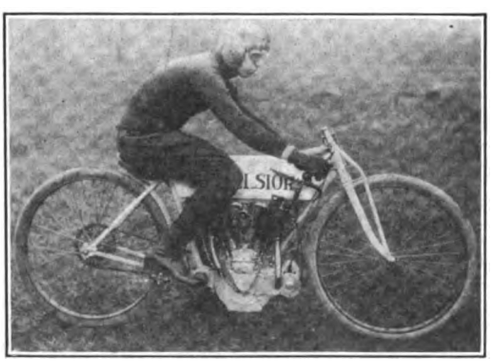
BUYING IN CONTAINERS.

His safeguard, the only satisfactory one, is to buy oil in containers, in the original sealed cans bearing the name and trade-mark of the manufacturer and a statement of the uses to which the oil is adapted. Oils thus purchased, if of responsible manufacture, contain no adulterants, and the purchaser runs no chance of "mistakes" being made on the part of the garageman, accidental or otherwise. When oil is bought from a 50-gallon can or barrel, it may or may not be what it is claimed; the attendant may have made a mistake in filling the can, and while the color is correct the oil may ruin the motor.

Or something like the following system may be adopted: The writer once went into a country garage for oil, and got what was suitable from a barrel in the oil room. He was driving a high-speed water-cooled motor in an automobile and while waiting for the tank to be filled saw a similar oil supplied to a motorcycle, a slow-speed truck motor, and a low-compression, high-powered automobile—from three different barrels. On accusing the proprietor of using but one oil in all three barrels, the latter admitted the facts and said that "oil was oil," and it was cheaper to stock one grade than four or five. The oil company was notified later and the proprietor was brought up quickly, but two at least of the motors were damaged by this man's "economy." Such a chance as this is what the motorcyclist runs when purchasing oil at a place where he is not acquainted and where it is sold out of a barrel. The risk will be appreciated when it is remembered that motorcyclists calling for oil are rare and automobilists plentiful, and that the oil most likely to be served to motorcyclists will be that kept in stock for the water-cooled motors of automobiles. Still worse, an oil totally unsuitable for any vehicle motor, one containing fats and other cheap adulterants, may be that contained in the barrel, and this should be shunned like a plague. In the final analysis the oil sold in a container by a reliable company is by far the safest for the motorcyclist.

HAS A SPEEDY MACHINE

W. J. MÜLLER, of New York, whose reputation as an automobile racer as well as a two-wheeler track rider, is well known in motor circles, is here shown on his new Excelsior. The motor has been specially fitted to his requirements, having abnormally large exhaust valves of tungsten steel and being balanced for extreme speeds. The oiling system incorporates leads to all bearing surfaces in addition to the usual splash, and the tanks are arranged so that a maximum of oil and fuel can be carried without extra weight or wind resistance. W. J.'s experiences with Anzani and other high-speed, air-cooled motors has been of the greatest assistance in the construction of this new machine. He states that it will do the mile in 39 seconds, and he expects to make some killings this season.



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HOW THE DEALER BENEFITS.

A reputation is easily gotten among riders. A dealer may be known as generally obliging and prompt in all his business relations, but there may be doubt as to the quality of the oil he stocks, and careful riders will go elsewhere for their lubricants. This going to the other fellow for oil soon results in going to *him* for other supplies, and there are two good reasons for this. First, it is easier to get several things at one place than to go to two or more places for them, especially when they are needed badly; secondly, the dealer who sells good oil is likely to have other supplies of quality. He is not trying to make a few cents extra profit at the expense of his customers by selling inferior oils; hence he is to be trusted in other things as well. The reputation of *this* kind of dealer travels widely and rapidly, and he benefits accordingly.

Practically no dealer nor garageman can afford to refine oil, nor can he afford to conduct experiments to determine its suitability to various motors. By getting his oil in containers, from reliable oil companies, he is guaranteed as to the quality of the oil and the company has done all the necessary experimenting and knows which qualities or brands are most suitable in each case. If the rider has trouble with the oil, the responsibility rests with the oil man or the rider, and the dealer has the seal on the container as his protection in case of argument. Finally, the oil company, advertising as it does most extensively, creates a demand on the part of the rider, and the dealer gets the benefit, which is not the case when the oil is of doubtful quality and from an unknown source.

NEW JERSEY M. C. SCHEDULE

Newark Riders Fix Dates for Bi-Weekly Runs to be Held in April, May and June.

PREPARATIONS for spring and summer tours of the New Jersey Motorcycle Club, of Newark, are now being prepared. Captain Cordes is anxious to revive the interest in touring that existed two years ago, and has offered a silver medal for the rider rolling up the greatest mileage on club tours during the season. The schedule for the first three months is as follows:

April 6—Easton, Pa., 132 miles, going via Irvington, Springfield, Scotch Plains, Somerville, Clinton and Whitehouse; leaving Eaton the riders will return to Newark by way of Washington, Schooley's Mountain, Morristown, Madison, Chatham, Springfield and Irvington.

On April 20 a 111-mile run to Trenton will be made. The route to Trenton is via Elizabeth, Westfield, Plainfield, Somerville, Kingston and Princeton. The return trip will be made via Princeton, New Brunswick, Plainfield, Springfield and Irvington.

The run on May 4 will be to Delaware Water Gap, a distance of 140 miles via Morristown, German Valley and Hackettstown. The same course will be followed on the return trip.

The run to Port Jervis is scheduled for May 18, is over the 162-mile course passing through Montclair, Parsippany, Dover, Port Morris, Netcong, Newton and Milford, Pa. Andover, Hopatcong, Morristown, Madison, Chatham, Millburn and Irvington will be passed on the return trip.

A 75-mile jaunt to Tottenville, S. I., will be held on June 8. The route is through Elizabeth, Elizabethport, Port Richmond, Bergen Point, Clifton and New Dorp. In returning the riders will go by way of Perth Amboy, South Amboy, Sayreville, Weston Mills, New Brunswick, Metuchen, Rahway and Elizabeth.

The last of the bi-weekly runs included in the present schedule is that of June 22 to West Point, via Montclair, Singac, Pompton, Suffern, Landentown, Haverstraw, Tompkin's Cove and Fort Montgomery. The same route will be followed on the return trip.

Runs for July, August and September are now being planned and will be announced later.

1913 COMPETITION RULES

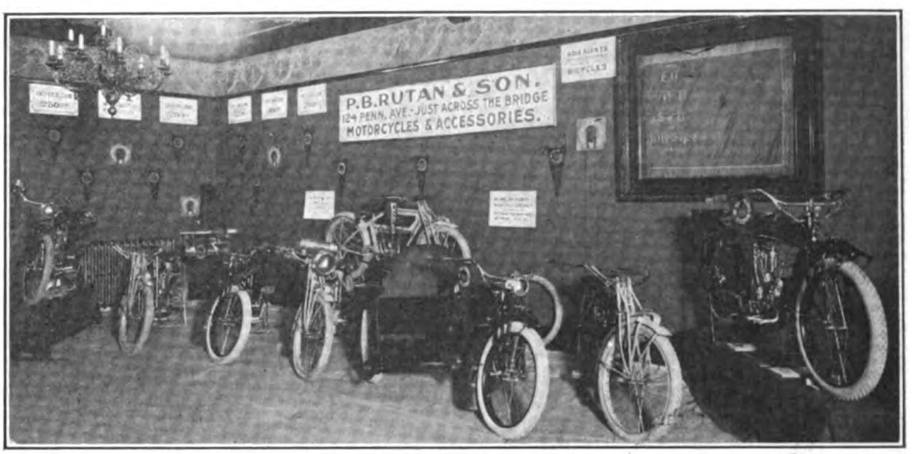
COPIES of the 1913 edition of the F. A. M. competition rules are now ready for distribution, and any one desiring them should write to National Secretary Gibson or Chairman Thornley, of the competition committee. Many requests for them are already on file.

ADDRESS ON FUELS

H. TIPPER, of New York City, chemist of the Texas Oil Company, spoke in Indianapolis before automobile men on March 11 on the subject of a substitute for gasoline. Mr. Tipper said that the expense attached to the production of naphtha, the proposed substitute for gasoline, will be so great that other fuels must be sought for. Many men interested in motorcycling were present at the Hoosier Motor Club to hear the speaker, who was brought to Indianapolis by the Society of Automobile Engineers.

RUTAN SHOW EXHIBIT

IN the photograph below is shown the attractive exhibit of P. B. Rutan & Son, of Elmira, N. Y., at the recent local motorcycle show. Rutan has the agency for the Indian and Excelsior machines and is one of the most active dealers in Elmira, as well as being a popular rider.



WHEN and HOW TO USE LUBRICANTS

Pointers for the Rider Who Demands Maximum Motor Efficiency

(Reprinted from the Motorcycle Manual.)

Intervals.	Part.	Lubricant.	Remarks.
Every time machine is used.	Cylinder, bearings, etc.	Cylinder oil.	6-12 drops per minute sight feed; one pumpful, 10 to 15 miles at ordinary speeds.
	Valve lifters.		
	Speed gear levers.	Machine oil.	Few drops from oil can.
	Steering head.		
	Controls.		
Attention weekly.	Free engine clutch (steel on steel).	Spindle oil or graphite and oil.	Few drops or renewal as the case may be.
	Free engine clutch (bronze on steel).	Graphite.	As needed for renewal.
	Belt.	Neatsfoot oil.	When belt gets hard or slips, use dressing. Keep oil off.
Attention every 350 to 500 miles.	Planetary speed device.	Non-fluid oil, oil and graphite, special oil.	Fill as high as shaft bearings.
	Hubs.	Cycle or special oil.	As per instructions from maker.
	Coaster brake.	Grease or special oil.	Renewal if necessary.
	Brake rigging (rim or band type).	Machine oil.	Few drops.
	Chain.	Graphite.	Boil in graphite and grease after washing in kerosene.
Attention every 5 or 6 months.	Magneto (ball-bearing).	Special magneto or 3-in-1 oil.	Small amount (see maker's instructions).

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ALONG the OLD NATIONAL ROAD

by ROBERT BRUCE

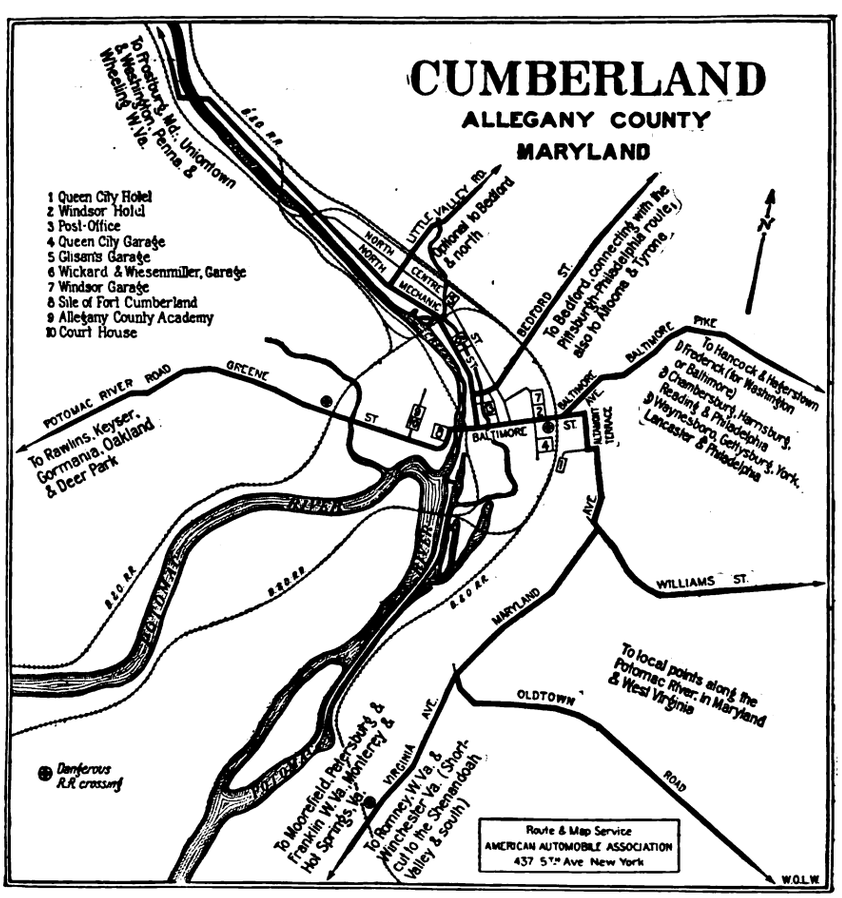
THE photograph on the opposite page was taken in the "Narrows," a short distance west of Cumberland, Md., the view looking toward Frostburg and Grantsville. It shows a strategic portion of the old National, or "Cumberland Road," built by the federal government during the early part of the last century, primarily for the purpose of connecting the National capital with the vast territory then being rapidly settled west of the Allegheny Mountains and the Ohio River. It is also one of the most picturesque localities along the entire route, and will be quickly recalled by any one of the large number of motorcyclists who have passed through on trips between Cumberland and Wheeling.

In the center of the picture is the National Turnpike, crossing the historic Wills Creek by one of those solid stone-arch bridges that are yet in good condition most of the way from Cumberland to Wheeling; note the long, easy curves at the ends of this bridge, the absence of grades and the roadbed that is as substantial as either of the two railways. On the right are the tracks of the Baltimore & Ohio Railroad, the pioneer steel highway through this section (whose building hastened the decline of the National Road), and on the left the Western Maryland Railroad. In passing, it may be interesting to recall that the road was built before either of the railways, and so had the first choice for a right-of-way through these Narrows, which provide the shortest and easiest passage into the Alleghenies.

HOW THE DISTRICT WAS DEVELOPED.

The old National Road not only assisted greatly in the settling and development of the West in general, but it was undoubtedly the largest single factor in the upbuilding of the cities and towns in the Ohio River valley, as well as Columbus, Indianapolis, Terra Haute, and a hundred smaller cities and towns on the direct route between Washington, Baltimore, Hagerstown, Cumberland and the Mississippi River at St. Louis. Before this road was opened to through travel, emigration had only the choice between the long, frequently treacherous wilderness paths, and floating down the Ohio River from Pittsburgh or Wheeling. Most of the explorers and early settlers chose the latter after once reaching that river, which carried them to Marietta, Cincinnati, Louisville, Paducah, etc., before central Ohio and Indiana had any through highways.

Not only did the Old National Road give practically an air-line across the Alleghenies, Ohio, Indiana and Southern Illinois, but it passed almost midway between the Great Lakes and the Ohio River. Along this strategic line great and prosperous cities have been built, themselves the centers for important road systems of a later day, but among them all the old federal highway stands pre-eminent. Very many automobile trips are made each year over all or part of it, despite the fact that since it was given up as a government project, and has lapsed back into the control of the states of Maryland, Pennsylvania, Ohio, Indiana and Illinois, many stretches have been allowed to fall into bad condition, especially between Hagerstown and Cumberland, Md.



Map of routes into, through and out of Cumberland, Md., the principal gateway into the Allegheny Mountains by the old National Road.

PLANS TO RESTORE THE OLD HIGHWAY.

Beyond Cumberland road conditions are much improved, and the average long distance traveler is willing to make some allowances as to surface because the Old National Road is nearly everywhere so broad and straight that no trouble is experienced in finding the way, except for the turns made in going through a few towns like Washington, Pa. (where the road from Pittsburgh comes in from the north to form one road to Wheeling and the West). Plans are now under way to restore this old-time highway to good condition throughout, a project which the pride of the several states concerned should cause them to support. It is also quite likely that some of the money now being raised by the automobile and allied industries for a transcontinental highway, under the leadership of Carl G. Fisher, of Indianapolis, will be spent on portions of this route in case any of the states through which it runs fail to do their part.

It is a matter of passing interest that the bridges on the National Road in Maryland, including the one shown in the picture, were once the subject of warm controversy between that state and the federal government. After it had been decided by Congress to let the road lapse back into the control of the several states traversed by it, Maryland and Pennsylvania accepted their parts of it only with the provision that the government should put this road in good condition within their boundaries, and construct substantial stone bridges over the largest streams. The War Department, of which Lewis Cass was then secretary, appealed to Congress for an appropriation of $600,000 to make the necessary repairs between Cumberland and Wheeling.

CLOSELY LINKED WITH HISTORY.

Congress cut this down to exactly $300,000, which led the engineers of the War Department to plan a

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In the "Narrows" just west of Cumberland—Western Maryland R. R. on the left and B. & O. R. R. on the right; National Highway in center, crossing Wills' Creek over one of the picturesque stone bridges which feature this route.

reduction in cost by making an understructure of stone and a superstructure of wood. But this change was refused outright by Maryland, and the government had to yield. In the end the stone bridges, such as the one shown, were built, whereupon Maryland took over its portion of this road and has since controlled it.

Through these "Narrows" passed Nemecolin, the Delaware Indian who was engaged by the Ohio Company, a considerable time before the Revolution, to blaze a path for foot travelers and pack horses across the mountains toward the West. George Washington, then a young lieutenant, also went through a few years after Nemecolin, on his mission from the governor of Virginia to Fort Duquesne (now Pittsburgh); and then followed Braddock's expedition in the French and Indian war. A generation later began the great emigration from the East and South to the West over the Old National Road, until the railroad took its place in 1853. The route certainly does not lack historical interest.

BAKER IN LOS ANGELES

WHEN last heard from Edwin G. Baker, the Indianapolis speedster, had just left Los Angeles on his way to San Francisco. Leaving Indianapolis January 27 Baker traveled southward through Georgia and Florida to Key West, and thence by steamer to Havana, Cuba. After a short stay in Cuba he went to Kingston, Jamaica, and reports that the roads in both Jamaica and Cuba are generally as good as those found in the States. From Kingston Baker took a steamer to Colon, Panama, where he enjoyed a week's inspection of the canal. Leaving Colon he rode to Panama City and then embarked for San Pedro, Mexico, from which point he rode to Los Angeles.

CLUB IN FINE NEW HOME

THE official opening of the new quarters of the Chicago M. C., at 3518 Ellis avenue, in the form of a dancing party held on Saturday evening, March 22, was appropriate and imposing. No less than ninety couples occupied the large floor of the ballroom.

The new clubhouse, which replaces the club's former home on "The Midway" which was partially destroyed by fire, has made a hit with the riders of the Windy City. Since the middle of February, the membership has been increased by thirty-five and the riders have been making more use of the facilities provided. There are three bowling alleys in the building, as against two in the old clubhouse; the ballroom is much larger, while there is considerably more space in the hall where meetings are held. The pool and billiard tables are located in a suitable room on the second floor.

WASHINGTON TO SAN FRANCISCO

HAVING left Washington, D. C., after the inauguration, Augustus Karekus, the Greek rider who is making a motorcycle tour of the world, is now heading for San Francisco, from which point he will sail to the Hawaii Islands.

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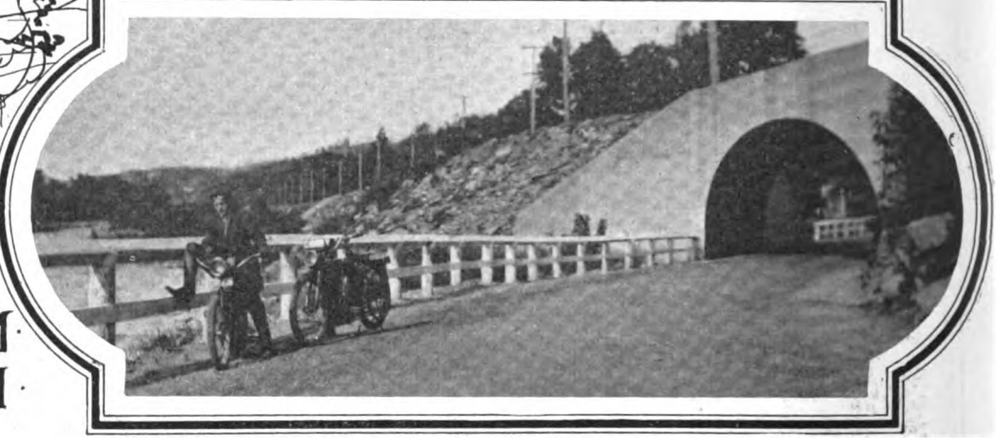
A DAY on the OPEN TRAIL

By GEORGE M. JOHNSON



IN the first place we *planned* to make it a day on the road, but you probably know what Burns—not Detective Burns, of ill repute among dynamiters, but Bobbie Burns, the Scottish bard—said about the best laid plans of mice and motorcyclists: they "gang aft a-gley," which is equivalent to saying in modern English that the deal is often gummed by unforeseen incidents.

The night before "the day," when Partner came around to ask me where we should go, I discovered that the leather lagging on my front pulley was worn down to the thickness—or thinness, rather, of tissue paper. In the light of that discovery I was unable to throw out any information on the vexing question of our route, and so we left it to chance.

As soon as stores were open on the following morning, I hustled down town and bought some lagging with which I proceeded to cover the front pulley. I had but five lagging screws, which was none too many, and furthermore I was in a hurry, which made matters worse. Owing to my haste in the necessary drilling operations, I found, on applying the new lagging to the pulley, that the holes in the leather fitted those in the pulley face about as accurately as a magneto spanner wrench fits a spark plug.

Nevertheless, I tried to force those lagging screws home, laboring under the impression that force would accomplish anything. In the case of the first three screws, all went well, but please remember that I had only five. The next one started properly—at least I thought it did—until its head began to wabble about in a peculiar and eccentric manner, which convinced me that it was not going at all properly. Examination showed that the threads had missed fire, to the vast detriment of the screw. Then I tried the other, and with similar results.

A DELAY THAT PEEVED MY PARTNER.

About that time Partner blew in, expecting me to be all ready for the road; he soon perceived his mistake, and then, on the principle that four hands and two heads are better than half that number, he joined forces with me in an attack upon that beastly lagging. We filed off the damaged threads on my two screws, enlarged the holes in the leather until they were nearly as expansive as the screw heads, and tried again. Result, more stripped threads; and all that time we were missing the joys of hitting the road on an ideal day. But everything comes to an end, and at last that lagging was in place.

"Ready now?" inquired Partner hopefully.

"Nix!" I growled. "Haven't had time to fill the gas and oil tanks yet."

Partner uttered a doleful groan, but darted into my "garage," presently to emerge carrying a chamois funnel, gallon measure, and a five-gallon can of gasolene.

"For Pete's sake!" he exploded. "Hustle your bones a bit and shoot some oil into that tank, while I feed her the gas! Jam your toe down on the accelerator and keep it there!" (Pard is only a humble motorcyclist, but he likes to talk as if he were in the four-wheeler class.)

"For Pete's sake!" barked Pard (that's a favorite expression of his), "when you write up an account of this trip, throw in a terrible warning against the chap who is never ready! And put in something about using your head, so that nobody else'll spend an hour and a half doing a twenty-minute job!"

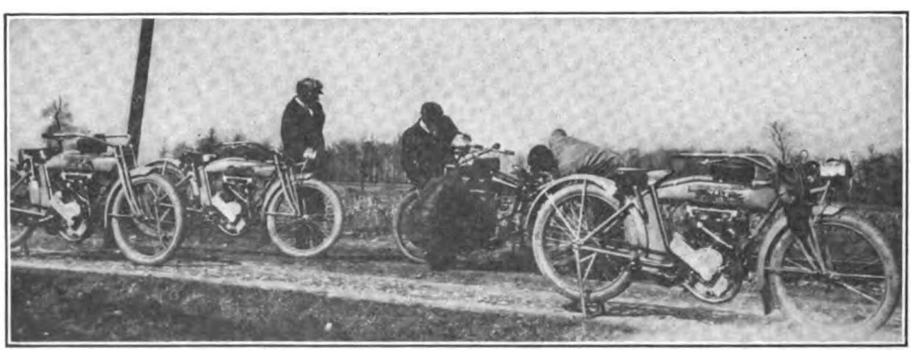
ON THE ROAD AT LAST.

The only other thing to disturb Pard was the fact that my camera turned up missing, and I took a ten-minute search to disclose its whereabouts. He had no business being peeved, though, because this was positively the first time he had ever waited for me. But he was right, just the same; I should have been ready.

As I remarked before, it was a glorious day, and no sooner were we on the road than both of us forgot the vexations of getting started. That's a fine thing about motorcycling; it's the best trouble-forgetter that I know of. If things are going just as wrong as they possibly can, get the old bus out for a run and forget everything else. When you get back, ten to one all the difficulties will be smoothed out as even as a new macadam road. The trouble is usually with *us*, not with the world in general, and when *we* are properly adjusted, so to speak—carbureter working in grand style, spark hot, compression good—there is nothing to worry over.

Pard and I decided to head in the direction of the Naugatuck Valley, our route from New Haven taking us up through the picturesque Woodbridge Hills. There are some good stiff grades through this section, but none of them bothered our mounts in the least. The first five or six miles were good macadam, after which we struck dirt roads—not at all bad, however—into Seymour, on the Naugatuck River.

The Naugatuck flows through a beautiful valley which it has cut out in the Connecticut highlands; the scenery is superb, and to make matters still better from the motorcyclist's viewpoint, one could not ask for a finer road than that which follows the river. Its sole defect lies in the numerous sharp curves, made necessary by the narrowness of the valley, though there is usually a warning notice before each place of danger; for a careful rider the road is as safe as if it were a straight line.



Riders of the Toledo (Ohio) M. C. Extending the Hand of Good Fellowship in a Practical Way to a Rider with a Cranky Mount.

ALONG THE NAUGATUCK RIVER ROUTE.

There is considerable auto traffic along this

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road, and I noticed that the drivers of machines were very careful as a rule. A prominent exception was furnished by two big cars in the hands of factory testers. We met them snorting along at an inexcusably reckless pace, rounding sharp bends at forty miles an hour, and with no warning signal save the roar of the huge, unmuffled engines. Those fellows, expert drivers though they are, will surely pile up some day.

Pard and I plugged along at a good average pace, rounding the curves slowly and keeping on the right side, but opened up a bit on the straight stretches. We stopped occasionally to take a picture, and, on one of these stops, I discovered that the gears of my speedometer drive had been running at cross purposes, until they were quite badly chewed up. Fortunately the trouble had not been going on long enough to ruin the gears, and, after a few minutes' work with my screwdriver, everything was again in good shape.

A short distance beyond Seymour is a very dangerous spot—a right-angled turn in the road, which is crossed at that very point by the trolley line. When going up the valley, one cannot see the track even ten feet ahead, so that an ideal combination for a serious accident is furnished. But Pard and I are both conservative; we never believe in taking chances just for the fun of it, and very wisely slowed down as we approached the track. Then, as fate would have it, a trolley appeared around the bend, not twenty feet away. But the motorman had his car under perfect control and stopped, in spite of the fact that we had already done so, motioning us to cross.

As we neared Waterbury a big auto made several attempts to pass us, which we naturally resented. Finally, when we were well within the city limits, ye humble scribe riding ahead, the car swept up alongside with a rush. I gave the throttle of my twin a violent twist, and the old girl jumped ahead like a scared rabbit, while the car, after staying beside me for a few seconds, dropped to the rear to be heard from no more.

SPINNING ON THE HOME TRAIL.

In course of time we were again swinging down the Naugatuck Valley. We paused at the trolley bridge for a picture, and, as Pard squeezed the bulb, he emitted a joyful snort.

"There's a car coming on the track behind you," he chortled, "and I got her!" Cool of him, wasn't it? At least I thought so.

Going into Seymour, we met a chap standing disconsolately beside about the worst relic in the shape of a motorcycle it has ever been my privilege to behold. I thought he might be in trouble, and slowed up to see, but he wanted no help. We stopped a few minutes in Seymour, and later on again met the relic as we plugged up a tiny hill; the poor old bus had gone out half way to the top.

"I wish I had your machine!" we heard the rider shout. I'm sorry for him; it is indeed a shame for a lad with the true motorcycling spirit to be compelled to waste his time on a worthless has-been. Here's hoping he connects with a brand new twin for 1913.

Pard and I took a slightly different route homewards, through another part of the Woodbridge Hills. Some time in the future I hope to use a trip through them as the basis of a thrilling narrative. My motorcycle has taken me many times into that region, on fishing or hunting trips, or merely for the sake of an enjoyable spin.

We rolled into our respective front yards in plenty of time for supper, which we were certainly ready to appreciate, well satisfied with ourselves and our machines. We had experienced nothing particularly exciting, and had had no trouble of any kind. It was, in fact, just such an excursion as demonstrates most clearly the worth of motorcycling as a sport—one of the best ways of spending a holiday.

HANDY PARCEL POST VAN

FROM Cleveland, Ohio, comes the accompanying picture of a special parcel post delivery van attached to a Minneapolis motorcycle. This outfit is proving very efficient in Uncle Sam's postal service in Cleveland. The photo is forwarded by A. T. Gregg, of the special delivery division in the Cleveland post office.

A STURDY HILL-CLIMBER

CERTAIN automobiles have reputations for climbing extraordinary grades on the high gear, and one of the latter often used as a test hill is the cobble-stoned surface of West 187th street, New York. It runs east from Broadway to Wadsworth avenue and resembles a steeply-pitched roof in grade, being shunned by most automobilists and motorcyclists. Even powerful twins fail to reach the top of the 200-foot street unless they are in the best of conditon. It has been conquered by one sidecar outfit, which made the ascent six times in succession on March 21 last. The outfit, which we illustrate, is the property of H. Lichtenstein, of West 98th street, and consists of an 8 h. p. Reading-Standard with Simplex coach-built sidecar attached. The average speed of all ascents was 21 miles per hour. The gearing of the sidecar outfit was about 4¾ to 1. The photo is by H. A. King.

April 7-12, Los Angeles, Cal.—Combined Motorcycle, Motor Boat and Sportsman's Show under auspices of Los Angeles M. C.

April 9, Buffalo, N. Y.—Bi-monthly meeting Motorcycle Manufacturers' Association, Lafayette Hotel, 10:00 a. m.

April 20, Newark, N. J.—New Jersey M. C. run to Trenton over 111-mile course.

April 20, New Haven, Conn.—New Haven M. C. run to Springfield, Mass.

May 1, Butte, Mont.—Butte M. C. race meet.

May 4 or 11, Brooklyn, N. Y.—Invincible M. C. annual spring run to Southampton, L. I.

May 4, Newark, N. J.—New Jersey M. C. 140-mile run to Delaware Water Gap.

May 4, New Haven, Conn.—New Haven M. C. run to Norwalk.

May 16-18, Indianapolis, Ind.—First annual convention of Indiana State F. A. M.

May 18, New Haven, Conn.—New Haven M. C. run to New London.

May 18, Newark, N. J.—New Jersey M. C. run to Port Jervis, N. Y.

May 24, Toronto, Canada.—Holliday motorcycle race meet.

May 29, Indianapolis, Ind.—Race meet at 1-mile dirt track under auspices of Indian M. C.

May 30-31 and June 1, New Haven, Conn.—Three-day endurance run to Providence, R. I., under auspices of New Haven M. C.

May 30-31, Newark, N. J.—Annual endurance run of the New Jersey M. C.

May 30, Washington, D. C.—National Capital M. C. race meet on Bennings 1-mile dirt track.

May 30, Norfolk, Va.—Race meet under auspices of Twin City M. C.

May 30, Baltimore, Md.—Four-state endurance run to be held under auspices of Maryland M. C.

June 4-6, Isle of Man.—Tourist Trophy races under auspices of English Auto Cycle Union.

June 8, New Haven, Conn.—New Haven M. C. endurance run.

June 8, Newark, N. J.—New Jersey M. C. run to Tottenville, S. I.

June 22, New Haven, Conn.—New Haven M. C. run to Coney Island, N. Y.

June 22, Newark, N. J.—New Jersey M. C. run to West Point, N. Y.

July 4-5-6, New Haven, Conn.—New Haven M. C. three-day run to Atlantic City, N. J.

July 4, Grand Forks, S. D.—Road race to Fargo.

July 13, New Haven, Conn.—New Haven M. C. run to New Gate Prison, Conn.

July 27, New Haven, Conn.—New Haven M. C. secret time run to Danbury.

August 10, New Haven, Conn.—Endurance run under auspices of New Haven M. C.

August 24, New Haven, Conn.—New Haven M. C. run to Saybrook.

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From PITTSBURG to ALBURQUERQUE

PART TWO by C. E. PARKER

IN the first instalment of my story I dealt with the experiences of my partner and myself in our trip from Washington, Pa., to Brazil, Ind., and in the article which follows I will tell of our experiences from that point to Albuquerque, New Mexico.

We had expected to obtain some oil and a few sundries while in Brazil but the store was closed. A motorcyclist whom we met there advised us not to follow the route we had mapped out to St. Louis, but to continue on the road we had been using. We took to the road again and soon passed Effingham and Altamount. The highways in this section were extremely rough, with plenty of dust and sand and we also encountered many steep hills. Riding along through such country as this we passed St. Elmo and Brownstown. Here the roads became slightly more level. After getting supper in a farmhouse, we went out to a hayfield and made a comfortable sleeping place.

In the morning we continued on to St. Jacobs, arriving there in time for breakfast. Collinsville and Caseyville were next on our route, and at the latter place we were forced to leave the road and make a detour through a cornfield, as the road was being repaired. The hills were very steep and some of them appeared to be almost unclimbable. After such a ride as this we were glad to regain the main highway, although we found this very poor into East St. Louis. We crossed to St. Louis over the great Eads bridge, paying five cents toll.

ON THE SANTA FE TRAIL.

We spent the best part of the next day making some adjustments on our machines and left about 3 p. m. for St. Charles. We crossed the Missouri to St. Charles and then rode on to Cottlesville. We had supper there and then started out of town to look for a camping place, but as it was very dark we left our machines along the roadside and came back to town. Up to this time we had been averaging about 115 miles a day, but the conditions we had to contend with after leaving St. Louis necessitated a reduction in our daily average. The road across Missouri is called the "Across-the-State Highway" and is well marked with red, white and blue bands on the telephone poles. The country through Missouri was a pleasant surprise to me. I had expected to find almost a desert, but many districts were quite hilly, well wooded and not unlike western Pennsylvania and eastern Ohio. Traveling over rough and rocky roads we passed a number of small towns and after a night in camp we proceeded to New Florence for breakfast.

Continuing from this point we passed through a number of villages and shortly after leaving the town of Rochport it started to rain. This so affected the road that we were unable to ride; in fact, working together we were unable to push one machine, so we left the mounts by the roadside and went to a nearby farmhouse for supper. In the morning the roads were somewhat drier and we were soon under way. Shortly after leaving we passed a large "Ocean to Ocean" sign, and knew that we were now on the Santa Fe trail. After leaving New Franklin we crossed the Missouri River to Booneville. We had not gone far when it began to rain again and we stopped at the Old Trails Road Tavern, at Arrow Rock, where we had dinner. As it continued to rain we decided to spend the afternoon overhauling our machines. It cleared up about 3 p. m. and we rode on to Marshall, where we stopped for the night.

DRY GEAR-BOX PROVES EXPENSIVE.

We made an early start the next morning, but owing to the rough roads our progress was not rapid. Rich farming land is found in this section and the layout was quite pleasing to the eye. Shortly after leaving Lexington, where we had our noon-day meal, I noticed that my clutch was not working properly and decided to return to Lexington and have the trouble attended to. We found that the gear box had run dry through lack of oil, which was merely carelessness on my part and for which I paid dearly. There was nothing to do but put some oil in it and proceed to Kansas City for further repairs. The road from Levasy to Kansas City was fine oiled macadam. In fact, it was so well oiled in one place that in passing a team I went down and rolled around in the mess before I could stop. At Kansas City I visited a mechanic, who upon looking at my clutch and gear-box informed me that I needed a new main shaft and a new dog clutch. This made a heavy inroad on my funds and I have since exercised more care.

M. M. BELDING, JR., president of Belding Bros. & Co., New York City, manufacturers of sewing silks. Mr. Belding recently became a motorcycle enthusiast, although he owns two big Peerless cars and is rated at over $1,000,000. The photo was taken at Palm Beach, Fla.

We left Kansas City the next morning at 11 a. m. and were soon in the State of Kansas; then we continued over good roads to Waldo and Martin City. From this place we used the American Automobile Association's "Trail to the Sunset" map, which is very complete. I would say, however, that this route should not be followed west of Albuquerque, New Mexico. Any tourist in this section will do well to seek advice from D. K. B. Sellers, Mayor of Albuquerque, and vice-president of the Ocean-to-Ocean Highway Commission in the State of New Mexico. He is well informed on the condition of the roads in his State and is always glad to give information to tourists.

Getting back to our troubles again, we had nothing but rough dirt roads all day and at night we arrived in Ottawa. Here we stayed with relatives of my partner. There was no improvement in the roads the next day. Houses and villages were getting further apart and the country was mostly prairie. We had lunch at Emporia, where we were told that the best route would be via Denver and Salt Lake City. Later in the afternoon, while riding in a leisurely manner I noticed that my front wheel was behaving very queerly. On dismounting I found that the axle nut was off and the axle nearly out. I had not gone far after fixing this when I felt a tug at the tail of my dust coat which nearly pulled me off the machine. My coat was caught in the drive chain and was torn off to the waist. We had better going to Cottonwood Falls where we had supper and remained overnight.

A JINX CUTS SOME CAPERS.

The roads through Missouri and Kansas have many sharp turns, some of them at right angles, and signposts are conspicuous by their absence, but the Santa Fe Trail, over which we were now traveling, was marked by white bands painted on the telephone poles. We slept in a haystack near Pawnee Rock that night and in the morning we rode to Larned for breakfast, and then over the rough prairie roads to Cimarron. While going over an unusually bad stretch of road Bill took a spill, and broke his throttle control rod, which he had fixed at the local blacksmith shop. We camped out that night and reached Garden City, Kansas, by noon on the following day.

We rode over some natural prairie road that was, without a doubt, the finest we had on the trip, but there was not much of it. We spent the night at Coolidge, which is just east of the Colorado line. The next day I had

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some trouble with my machine which necessitated a short delay. Bill went ahead and when I arrived at Holly was informed that he had proceeded to La Junta. I spent half the next day trying to locate a compression leak and was not ready to leave until 2 p. m. I then found that one of my tires was flat and that there was a large nail in it. In removing the tube from the casing I tore a six-inch hole in the former. After leaving Holly and Prowers I took the wrong road which led into the prairie and I finally came to a river which was too deep to ford, so I turned back.

After this my jinx, being satisfied with his work decided to lay off until the next day, and I was soon on the right road and across the Arkansas River. I could not go very far, however, as it was quite dark, so I sought accommodations in a farmhouse. The next day was excellent for riding and I made good progress until I reached Las Animas, when a rather peculiar accident befell me. My riding coat was of the regular Norfolk jacket style with a belt, and as I was riding along at a good clip the rear wheel locked. I was not injured in the fall which followed and upon investigating found that my belt had dangled and caught in the transmission and had been carried into the clutch sprocket. On the road to La Junta I was bothered by a number of dogs and at one time took a spill, spraining the great toe on one foot and barking both knees.

WHERE FOOD WAS SCARCE.

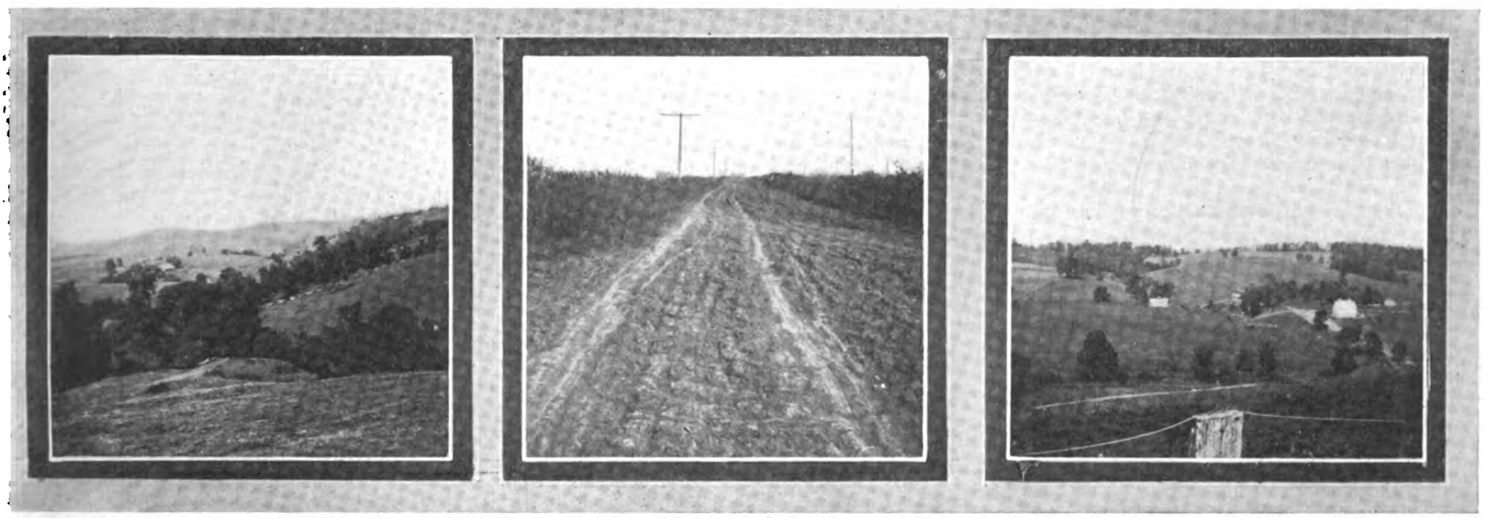
Bill was waiting for me at La Junta and here we were joined by another rider who wanted to make the trip to Los Angeles. As three of the four leaves of my front fork spring were broken in my encounter with the dog we decided to go to Pueblo where we could get spare parts. We stayed over night at Rocky Ford. We had seriously considered riding on to Denver and Salt Lake City, but as newspaper reports were to the effect that the mountains were covered with snow we decided to follow the Southern route. We had a pilot lead us out of the city and on the road to Trinidad and we were soon in the wilderness. Here at the foot hills of the mountains, the scenery was fine and we obtained some good photographs. We had considerable trouble that night in procuring food and lodging. At a number of the ranches at which we stopped we were refused both. Later a woman let us have a few bread and butter sandwiches for ten cents each. It was beginning to look very much as though we would have to sleep out when a man who lived in a nearby ranchhouse invited us to room with him. We all assisted in preparing the supper and after a short chat we went to bed.

We made an early start in the morning and found rough prairie roads with many steep hills to climb. We had dinner in Walsenburg and in the afternoon the hills became more plentiful and much steeper, while the roads were a little better. We spent the night in Trinidad, which although only a small town has 45 saloons; in the morning we started the ascent of the famous Raton Pass. At the highest point of this pass the rider is at an elevation of almost ten thousand feet. We crossed the state line into New Mexico while at an elevation of 8,790 feet. At such a height as this the rider is afforded a wonderful view. To the east the country is level, while looking westward one sees the Rocky Mountain ranges. We had dinner at Raton and then headed for Las Vegas, via Colfax and Springer. We stayed over night at Colfax. We rode all the next day over rolling prairie roads, passing through very few towns. It was dark before we reached Las Vegas and as I took a nasty spill about a mile out I decided to walk the remaining distance.

THE ARRIVAL IN ALBUQUERQUE.

The next day we got into the red sand hills which were covered with small cedar trees. Our route lay alongside the Santa Fe railroad, with large mountains on either side, and the canyon-like scenery was very beautiful. We passed through the Mexican towns of Tecolote, Bernal and Pajarito, and on leaving Lescos we took the wrong road for about ten miles. We were unable to connect with the right route so had to return to Pecos. This town, like the other Mexican villages, is very quaint. The houses are built of adobe and so arranged that a square is left in the center of the village for the building of a church. From Pecos we rode on to Glorietta, where we stayed over night, sleeping on the floor of an old dance hall, as we could not get any other lodging.

It rained during the night and in the morning it was cold and clear. The roads were not bad and we were soon in Santa Fe, one of the oldest towns in America. This town was founded by the Spanish in 1540, and although it is very interesting we did not stop long as we wished to reach Albuquerque by evening. Leaving Santa Fe we rode for some time over a mesa or table-land and then up the La Bajada Hill, which affords a remarkably fine view of the surrounding country. Before reaching La Bajada, which is approached by a serpentine road in which there are thirty-six sharp curves, we passed through Algodones and Bernalillo. My knee had been growing steadily worse and so on reaching Albuquerque I decided to consult a physician, who ordered me to a hospital. As it was necessary to stay in bed for some time my companions continued on toward the coast. Except for the injured knee I was feeling fine, had gained considerable in weight and from every viewpoint I was glad I had made the trip.



Scenes Along the Southwestern Leg of the Pittsburgh-Albuquerque Route, Showing a Typical Road and Scenic Characteristics.

DETROIT MOTORDROME

Construction Work Is Being Pushed on Big Bowl for Opening Races in May

MOTORCYCLE racing in Detroit on the new quarter-mile motordrome now in course of construction will start on May 14 or 21, the opening date depending upon the weather. Grading will start at once and architects are working upon the plans for the track and grandstand. Incorporation papers have been sent to Lansing for the Detroit Motordrome & Amusement Company, which will have a capital of $20,000. Those interested in this company are: E. H. White, A. J. Bath, E. R. Martin and John A. Wilson, all of Detroit.

Racing will be carried on Wednesday, Saturday and Sunday evenings, and occasionally on Saturday afternoons, during the entire season. It is the present plan to have the Detroit team composed entirely of Detroit men, provided the local riders show well in their training. The construction work is being pushed especially to give the boys an opportunity to train before the season opens. The Detroit team will ride in the circuit of the National Racing League.

A "NO-TROUBLE" JOURNEY

IRA J. STOCKWELL, of Lawrence, Kan., has just completed a 1,400-mile motorcycle trip through Kansas, Oklahoma and Texas. Despite the fact that most of the distance was over mud and sand, Stockwell made the trip without a serious mishap.

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The LADY MOTORCYCLIST

By NORA HOUGH

MOTORCYCLING as a sport is rapidly gaining favor among ladies in England, and, judging by the way the manufacturers are turning out open-frame models, the number of feminine riders will be almost doubled during the current year. Prospective riders should have no trouble in choosing a mount for this season, as every well-known firm is making a dropped-frame machine, if not an open-frame type. These machines make provision for a lady's skirts and meet her requirements in general as nearly as they can be met with an ordinary motorcycle. Nor are we limited as to power, for both heavyweights and lightweights in the ladies' models are being shown by the makers.

After considerable experience I must say that I prefer the lightweight for solo riding, and until a motorcycle is constructed which automatically comes from the motor-house and jacks itself up on the stand I think my opinion will be endorsed by the majority of lady riders. The motorcycle of today is very reliable and the ordinary mishaps are easily put right by the roadside, but there comes a time when something serious happens and then the machine needs pushing—either to the nearest repair shop or home. This is where the lightweight scores with the lady motorcyclist, for it can be wheeled with little more exertion than an ordinary push bicycle.

A FRIEND OF THE DOUGLAS TWIN.

A little machine that has always appealed to me is the Douglas twin, an ideal ladies' mount, both in regard to appearance and power. The control is simple in the extreme, and the weight and steering are not much more difficult than with a bicycle. I have ridden my Douglas in competition over severe courses among riders of higher-powered machines, and have never failed to hold the road or climb any hill, freak or otherwise. In fact, on bad roads I can keep up the speed without fear of side-slip, while other heavier machines require careful manipulating. Then on test hills I have often passed heavyweights ignominiously "conking out."

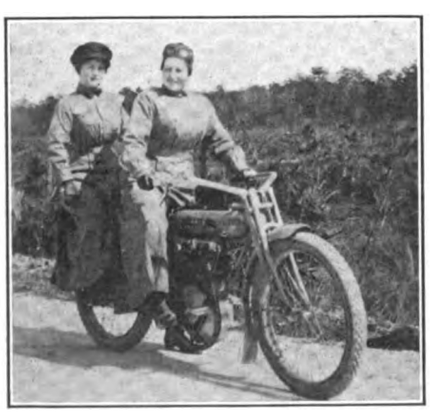
In the above paragraph I refer to solo riding, of course. For sidecar work one naturally requires a little more power. A machine I have used with good results as a combination mount is the popular two-stroke Scott. The latter has an open frame with an extremely comfortable riding position, and is therefore quite a lady's mount. The Scott has also proved an excellent hill climber, and I have never experienced any trouble in getting over the ground with it.

CLOTHING FOR THE LADY RIDER.

Dress, as we all know, is a very important item for any motorcyclist, and for the lady rider it is of the greatest interest. Many enthusiasts of the fair sex experience difficulty in obtaining clothing suitable for motoring trips; it either gives fair protection at a heavy sacrifice of appearance, or it looks well and fails to protect. The makers of men's motorcycling garments have been very slow in catering for the lady rider, and I have found it impossible to walk into any ordinary shop and purchase the riding togs I need. Every motoring garment I have yet worn I have had made especially for me, according to my own design.

Of course, regulation waterproofs and silk oilskins are always shown, but I have proved the former only showerproof, and the latter tear much too easily; therefore they are of no use for rough riding. The outfit I have found correct is here given: Plenty of warm woollen underwear for riding in cold weather (this is essential), a tweed sporting costume, covered by a windproof long coat held at the waist by a belt. It should be kept in mind that the belt is quite necessary. For wet weather I carry an ordinary fisherman's sou'-wester and oilskin (not silk). For headgear I have found a close-fitting woollen cap to be most comfortable. The wool clings to one's hair and a veil is not necessary.

Still, I must confess a pretty motor veil is very attractive, particularly if one chooses a short taffeta of soft shades. The latter wear extremely well and, what is more important, do not show dust or look shabby after a little use. In my opinion, the matter of dress should be carefully considered, for a lady attracts considerable attention on a motorcycle and the neater we look the more ladies we shall attract to the exhilarating sport.



Miss Frances Noel, of Houston, Texas, making a trip with a friend to the San Jacinto battleground. Miss Noel has piloted her own Yale for some time past, and states that she could not get along without it.

A SIDECAR RECRUIT

MISS LAPEARL E. WILLIS, an enthusiastic motorcyclist of Canal Dover, Ohio, recently purchased a sidecar and now takes her girl friends with her on her road trip.

WITH BALTIMORE RIDERS

THE four-state endurance run to be held by the Maryland club on May 30 will have classes for both amateurs and professionals. The private owner will therefore have an opportunity to show, especially as a separate list of prizes will be offered for this class. A large entry list is expected. One thing the club insists on in this run is that there shall be no speed contests, and those found violating this rule will be penalized heavily.

"Tommy" Dedge, District of Columbia champion, attended the last meeting of the club for the purpose of requesting William Wood, State F. A. M. commissioner, to include the district in the organization of a state convention. Wood was sorry to have to refuse, as his work in Maryland is arduous and he finds he has time only for the problems in this state. Dedge also took advantage of his visit to tell the boys about plans for the motordrome to be built at Glen Echo by the Washington club. The local riders are greatly interested, and besides entering in the races they will be excellent patrons of the big bowl.

The club went on a run to Ridgeville on Sunday, March 23, a big bunch of riders taking advantage of the beautiful weather.

George Gebhart performed a daring feat on his motorcycle last week when he ascended a winding path three feet wide and paved with cobbles, running from the lake drive up the slope to the observation tower. It is one of the steepest paths one could find anywhere, and more difficult than the most arduous hill climb.

Freddie Tiemeyer, the champion of Maryland, and "Boots" Reuschling have secretly signed up for a two-mile match on the road and it has aroused much interest.

Miss Georgia Bailey, of Miami, Fla., appears in the above photograph on her Harley-Davidson. She had just participated in a basketball game when the photo was taken. Hence the unusual riding costume.

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PLANNING A WORLD TOUR

by MILTON · S · HOPKINS ·

BY way of introduction it should be stated that our proposed tour is not to be simply a 'round-the-world journey by motorcycle, but a trip of indefinite length the itinerary for which involves almost every country and all the most important islands. The main object of this extensive tour is to obtain first-hand data concerning the industrial, political, social, economical and educational conditions of all countries. The writer, as secretary of Carnegie College, in Rogers, Ohio, will find the information thus collected of great value, and in due time it will probably be embodied in a book.

My companions on the long journey will be Harry C. Vale and Lester Van Allen. The former will ride a 10 h. Michaelson and the latter a Crawford twin. My own mount will be 1913 Monarch, rated at 10 h. We have had such a trip in mind for a long time, but so many details have to be considered in laying plans for an itinerary that is to extend over years that we were forced to proceed slowly. We believe that we have now threshed out every phase of the project, and the coming summer will find us under way.

ROUTE THROUGH THE UNITED STATES.

It should be noted that we will make quite an extensive tour in our own country before sailing for Japan, as we do not intend to overlook any of the main points of interest simply because they happen to be close at hand. Our route through the United States will be as follows: Starting from Carnegie College, Rogers, Ohio, June 16, we will proceed to Pittsburgh, Pa., Washington, D. C., Baltimore, Philadelphia, Atlantic City, New York City, Owego, N. Y., Buffalo, Niagara, Erie, Cleveland, Toledo, South Bend, Chicago, Milwaukee, Green Bay, Menominee, and points in Northern Michigan. Thence we will go via Minneapolis and Yellowstone National Park to the western coast. Japan will be the first country to be toured after we leave San Francisco. No rigid itinerary is prepared beyond Japan, but each country will be taken up in its regular order, or as circumstances and climatic conditions would make advisable.

The motorcycles will be equipped with special luggage carriers and auxiliary tanks for oil and gasoline. According to the present plans for the luggage carriers, enough gasoline and oil can be carried to permit of a journey of 1,500 miles without replenishing supply. This will make possible extensive riding in countries where gasoline is scarce, and will permit of journeys through lands where no motor vehicles have ever penetrated. Each outfit will be so complete that should the members of the party separate for any reason no inconvenience will result from inadequate equipment.

THE INDIVIDUAL OUTFITS.

Each rider will have a tent 7½ by 15½ feet, made of a special quality of Somerset silk, which is waterproof but very light in weight. The entire tent with fitments weighs only four and one-half pounds. These tents may be put up separately in any one of ten different shapes, without a moment's delay, and may be changed from one shape to another should such action become necessary.

Two tents may be fastened together and set up, either suspended from a rope swung between trees, or supported on poles erected on the luggage carriers of the motorcycles, thus completely sheltering the motorcycles and entire outfits. Three tents may be attached in the same manner, making a large tent, which may either be open at the ends, or entirely closed. The shape of the tent can be varied at will to suit our fancy or to conform to the topography of the camping ground.

The sleeping-bags are roomy and comfortable, and were devised especially for this tour. The outer case is of waterproof Somerset silk fabric, and the inner parts are of paper blankets that defy the cold. The bags, although 30 inches wide and 78 inches long and composed of four thicknesses of paper blanket and two of Somerset silk, weigh only four and a quarter pounds. A rubber blanket below the sleeping bag will serve as a further protection on damp ground.

The cooking outfit nestles into a space just half an inch larger each way than a common brick, and contains a pail, cup, stew-pan, two frying pans and broiler, with handles for each, and a folding knife and fork. A small alcohol gas stove will furnish the necessary heat without blackening the utensils. Each member of the party will have a separate outfit including these items.

GUARDING AGAINST PUNCTURES.

Each detail of the equipment is the result of careful study and experimenting and is as nearly perfect as can be obtained. Note, for instance, our method of guarding against punctures: First we will use the Brictson detachable tread with steel studs, and under that the regular studded tire; then we will have inter-liners, and use in addition the Brown scientific self-sealing tube. As a final precaution we will carry in our tubes a puncture-closing fluid known as Rubberstone.

We do not expect many punctures or blowouts with this equipment, but we are prepared with all the latest blowout patches, sleeves and patches of all sizes, shapes and makes, and we will also carry a vulcanizer, vulcanizing fluids and compounds, tire gum and cement. In event of a puncture, we will be able to repair it readily and proceed upon our way.

The Monarch twin will be equipped with Trinity Chimes, a motorcycle horn which attaches to the exhaust pipe and gives a melodious warning which is a blending of four tones. A Genolite electric motorcycle lighting outfit will be mounted on the Monarch, and will be provided with extra storage batteries which will store up the current generated during the day and furnish light for the camp at night.

This will enable us to have the camp brilliantly lighted with electricity at all times without extra expense, in countries where no gas tanks are available. Most of our riding will be done in countries where the motorcycle will be a curiosity, and there will be no way of obtaining carbide or gas for the lighting systems. Further details of our plans will be given in an early issue.

[EDITOR'S NOTE.—Mr. Hopkins has entered into an agreement to write the story of the world tour for MOTORCYCLE ILLUSTRATED, and it goes without saying that his descriptions of motorcycle touring conditions in countries off the beaten track of sightseers will provide features of unfailing interest. The party will carry high-grade cameras, and the various instalments of the article will be illustrated with photographs taken along the route.]

WHY JAKE SMILED

AFTER a 200-mile tryout of the Brictson tread on his rear tire, through mud and over

frozen roads, the rider shown in the above photograph was still smiling, as will be noted, and he was ready to repeat the performance. The smiler is Jake Grama, of New Philadelphia, Ohio, who recently proved to his entire satisfaction that with a Brictson tread he could hold his machine upright under the most discouraging road conditions.

RIDERS IN TRAINING

TRY-OUTS and the training of riders who have applied for the privilege of competing in the Inter-City races planned by the American League of Professional Motorcycle Racing Clubs has begun. Late reports are to the effect that more than 100 riders have presented applications, and if the majority of applicants make good nearly every state in the Middle West will be represented on the circuit. If a proper location for a saucer can be obtained in Pittsburgh it is probable that the Smoky City will be included in the national circuit.

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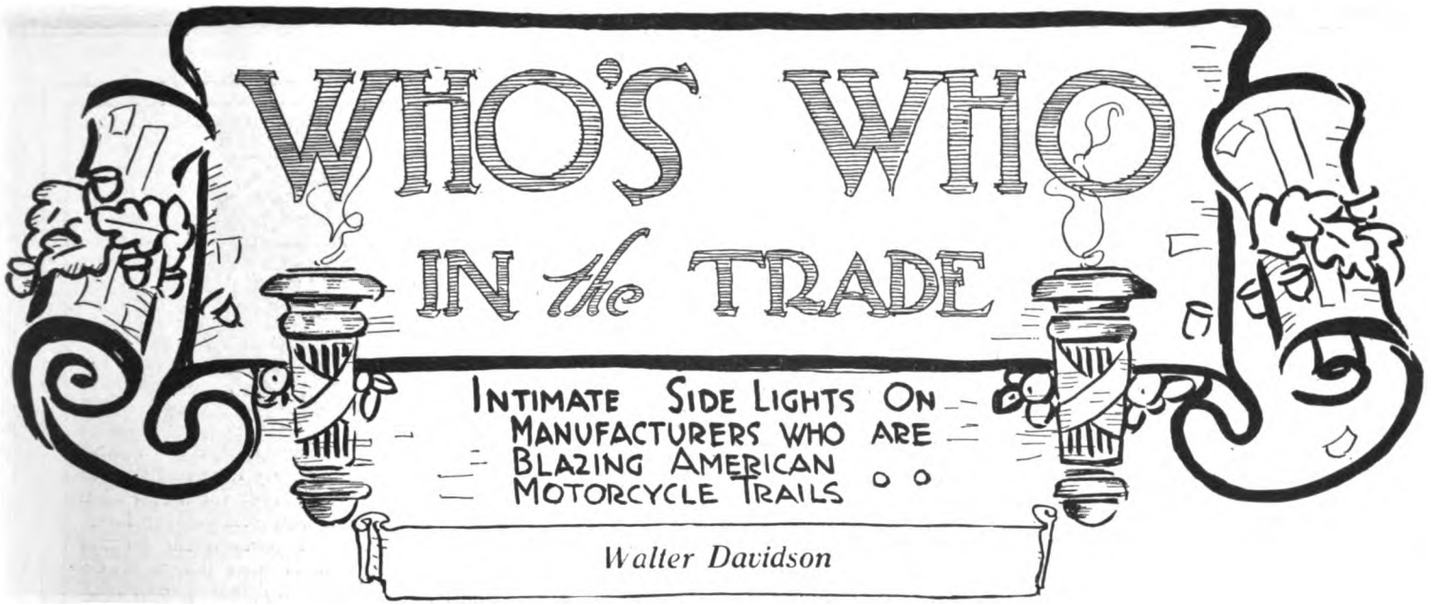

"WHY, Walter came home to be best man at my brother Bill's wedding, saw the work a North Side machinist was doing on a motor for Harley and me, was disgusted at the way the hole was being made in a valve stem guide and—well, he just got interested and went to work on that motor *himself*." Arthur Davidson is authority for this bit of history, which explains the way in which Walter Davidson, president and general manager of the Harley-Davidson Motor Company, made his start in the motorcycle industry.

From this statement it is easy to see that the marriage of William A. Davidson, now general superintendent of the company, really marked the entry of Walter into the big business of which he is the directing genius. Therefore it is necessary to chronicle the fact that the marriage was solemnized on April 3, 1903, and that prior to that date Walter Davidson knew little and cared less about motorcycles. But when he became interested—well, that's part of the story.

WORKING ON A NIGHT SCHEDULE.

For the preceding two years Arthur Davidson and William S. Harley had been building motor bicycles. They were having fair success, but were in need of a skilled machinist to supplement their abilities as draughtsman and pattern maker, respectively. Walter Davidson was working in the tool-room of the "Katy road" at Parsons, Kan., when he received a letter from his brother Arthur, containing the following sentence:

"When you come home for Bill's wedding we will have a motorcycle for you to ride." But Walter Davidson soon discovered that he would have to build the motorcycle himself if he wanted the promised ride. So he went to work on the motor in the little North Side shop. During the day he worked in the tool-room of the Chicago, Milwaukee & St. Paul Railway Company shops, and his work on motorcycles was all done at night throughout that first year.

Having seen how the company was given its start, we are now prepared to learn something of the man who played such an important part in those early operations—and who has maintained that position of importance in the company of today.

Walter Davidson was born in Milwaukee thirty-six years ago, and most of those years have been very busy ones. He attended the public schools until he passed through the eighth grade and then decided that he would take up the electrical business. He remained at this trade two years—long enough to discover that he needed a technical education in order to go higher—and then he became a machinist's apprentice. His first employment as a machinist was with the A. O. Smith Co., now among the largest manufacturers of automobile parts in the country.

THE BUSINESS BEGINS TO GROW.

With that company, and later with the Standard Pneumatic Tool Company, of Chicago, Mr. Davidson learned considerable about internal combustion engines. When he was in Chicago he made some sample parts for the Aurora Automatic Machinery Company. Immediately after that the Standard Pneumatic Tool Company moved to Aurora. Instead of going to Aurora, Mr. Davidson returned to Milwaukee. He was working for the International Harvester Works when the men went out on a strike in 1901. That resulted in Mr. Davidson landing in the tool-room of the "Katy road" at Parsons, Kan., where he received the letter from Arthur Davidson inviting him to enjoy a motorcycle ride when he came home for William Davidson's wedding.

In the fall of 1906 the first building was erected on the site of the present main Harley-Davidson factory. The first building was one story high and 28 x 80 feet in ground area. When it was completed the railroad company declared the surveyor had located the building too close to the railroad tracks. Eight men got hold of the building and shoved it over a foot off the railroad property.

HANDLING THE EARLY SHIPMENTS.

"Simple, wasn't it?" said Walter Davidson when asked about that incident. "And now we have over 224,000 square feet of floor area. Still, we were pretty busy in those days. We built 150 machines that season, shipping them to C. H. Lang, Chicago; Ward Fisher, Rochester; Alexander Klein, Philadelphia; Guy W. Webb, Minneapolis—all four of whom have been among our dealers ever since—and to Lee Richardson at Los Angeles. Mr. Richardson returned subsequently to Chicago to take his father's place in the manufacturing of roller skates."

Modesty is Walter Davidson's chief trait. There is no end to what he can accomplish and what he does accomplish in a day. Fortunately possessed of perfect health, he has a store of energy that seems unlimited and that is applied daily to scores of problems in as many departments of the Harley-Davidson organization.

Decisions involving large sums and affecting the entire policy of the company are snapped out with a rapidity that amazes even those who are most closely associated with him. Mr. Davidson has mastered in turn every department of the business. The designing and constructing of motorcycles is known to him in every detail. He is a mechanic, first, last and all the time.

A MAN OF MANY PARTS.

But added to his wonderful technical and practical knowledge of the mechanical points involved in motorcycle construction is a thorough knowledge of finance, of advertising, of salesmanship and of architecture. During the past few years the Harley-Davidson Motor Company has had a new factory addition under way most of the time. As soon as one addition is completed another has been started. Walter Davidson is the man who assumed the additional burden of supervising building operations.

Whatever the future of the motorcycle may be destined to become, Walter Davidson will be a dominating force in determining its destiny. His clearness of vision, his vitality, his highly developed intellect and his keen judgment, coupled with his modesty and capacity for hard work—he has not taken a vacation in seven years because his daily work is his recreation—have been potential in bringing the motorcycle to its present development and will have an important part in bringing it to ultimate perfection.

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NORTHWEST CLUBS FOR ADJUSTMENT

(*Continued from page 25.*)

ships of all members present were turned in to State Commissioner Whiting at once. The necessary 75 per cent. of the club's membership for affiliation is expected within a fortnight. Secretary Bursans, of the Convention Association, was delegated by the club to attend the meeting of the F. A. M. directors in Chicago to present Denver's request for the 1913 convention.

Before leaving California for the Northwest, Director Sauer addressed several meetings, and was welcomed by a large number of motorcyclists in San Jose. The San Jose Club took advantage of the occasion to open its fine new headquarters at 128 East Santa Clara street. Nearly one hundred riders were in attendance, including about thirty ladies, and a successful program was presented.

On his arrival in San Francisco the F. A. M. representative learned that the San Francisco M. C. had adopted a resolution refusing him an opportunity to address the members. He then forwarded the following note to President H. G. Hodges, of the club:

"I learned today, much to my surprise, that the San Francisco Club had adopted a resolution refusing to afford me an opportunity to address your organization. Under the circumstances I will not attempt to force myself upon you. Should you reconsider your decision it will be possible to reach me at the Palace Hotel."

The club's action was not reconsidered and the F. A. M. official left California without being enabled to talk over the questions at issue with the riders of the San Francisco Club.

From Denver Director Sauer proceeded to St. Louis and his schedule calls for his arrival in Chicago on April 4. He will remain there at least two days, address a meeting of the Chicago motorcyclists and attend the session of the F. A. M. Board of Directors. He will then return to New York for a week before going out upon the last leg of his lecture tour through New England and into the Middle West. Owing to the recent floods, changes may be necessary in the latter schedule.

HOW "GRYNDYN" SAVES LABOR

WITH the season for motorcycle overhauling at hand nearly all riders are finding that the valves of their motors require some attention, and an unusually large number of the thoughtful ones are eliminating the troubles of past seasons by using "Gryndyn," the improved valve-grinding compound marketed by Stewart & Co., 5 Cortlandt street, New York City. Gryndyn is so compounded that it meets all the requirements of the grinding process without the necessity for using several grades; the single grade, ready for use at all times and supplied in a neat screw-cover box, does all the work. This arrangement permits of saving time and is also the most economical method of using a grinding compound. Gryndyn sells at 35 cents a box, and a leaflet telling how it works and why it is a money-saver will be sent on request.

The Stewart firm is also handling the Owen valve-grinder, a tool so weighted that no pressure need be exerted upon it in the grinding process.

TO ISSUE ACCESSORY CATALOG

ANNOUNCEMENT is made by the E. J. Willis Company, of 85 Chambers street, New York City, that the firm will issue a large motorcycle and bicycle catalog. For the last three or four years the company had featured its automobile supply and tire department, but it has now decided to give special attention to its motorcycle and bicycle supply line.

NEW TIRE-MAKING FIRM

ALLIANCE, Ohio.—The Alliance Rubber Company has been incorporated for $100.000 by George C. Russell, Milton B. Ejach, W. H. Purcell, M. S. Melbourne, Robert Auld, Sr., F. E. Dussell and H. F. Bobecker. The company will produce automobile and motorcycle tires.

MILWAUKEE, Wis.—The Feilbach Motor Co. has purchased a site of five and one-quarter acres upon which a new plant will be erected.

FRENCH COMPANY EXPANDS

BALTIMORE, MD.—Branching out with a view to becoming one of the largest motorcycle and sporting goods houses in the country, Howard A. French & Co., of this city, have just purchased the entire establishment of the National Sporting Goods and Auto Apparel Company, at 424 Ninth street, N. W., Washington, D. C. Two days after the deal was consummated, the branch house at 736 Fourteenth street, N. W., was vacated and all the effects moved into the new quarters.

The Ninth street building has a frontage of 22 feet with a depth of 132 feet, including a basement running its entire length with an entrance on the street level in the rear. Work has already started to transform this room into a motorcycle garage, capable of storing at least 200 machines and furnished with lockers for the benefit of tourists.

The branch house, which will be in charge of Casper French, will also make a specialty of the motorcycle van, which is becoming so popular in Washington. Fred Hippler has been appointed manager of the repair department. He celebrated his promotion by becoming a benedict on Sunday, March 23. He will not, however, ride tandem in the future, but will take his wife out in the demonstration sidecar.

ASH IS CONVALESCING

FRIENDS of W. J. Ash, the well-known Flying Merkelite, will welcome the announcement that he is now on the way to complete recovery after a serious attack of pneumonia. Mr. Ash contracted a heavy cold at the Chicago show and was too busy to give it proper attention. Later he went to Kansas City to attend the show there and the cold continued to bother him. His next jump was to Wichita, Kan., where he was as active as usual at the motor show, but at the close of this exhibition he found himself confined to his bed. For several days his life was despaired of, but a recent letter from him states that he is slowly getting back into working trim.

IN addition to the Pope line, P. E. Zimmerman, of Lindsborg, Kan., has taken the State agency for the Black Hawk motorcycle.

The Store Front and an Interior View of the New Store Recently Occupied by E. H. Kasten, at 253 Fourth Street, Milwaukee, Wis., Are Shown in the Accompanying Photographs.

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The DEALER'S FRIEND

BY RODMAN BARRY

I HAD dropped in to buy a spark plug at the headquarters of a dealer with whom I am on friendly terms, and was just being informed by his mechanic that the veteran was out on the road when a sidecar outfit pulled up in front of the store, and—much to my surprise—the dealer hopped out of the big "basket" and dashed into his place of business, leaving his assistant still astride the machine. This dealer, be it known, had frequently proclaimed his lack of interest in sidecars, and it was for this reason that his new attitude impressed me. I buttonholed him as he was heading for the repair shop, and asked a few questions.

"Two weeks ago," I said, "you turned a cold shoulder to the sidecar, and now I find you not only riding in one, but working it into your business. How did you generate all this sidecar enthusiasm since I last saw you?"

"I'm in a hurry," replied the veteran, "but I don't mind wising you up a bit. It won't take long. My little daughter wanted to accompany me on Sunday trips and I bought the sidecar to please her. Now I've found so many uses for it that the poor youngster hardly gets a chance to look at it. That's all there is to it. I was letting a lot of business get past me before I had that sidecar and I never realized it; now I'm thinking of buying another, also for my own use. Incidentally, I have booked two sidecar orders since I have been driving my own outfit.

FINDING WORK FOR THE SIDECAR.

"Finding work for a sidecar is the easiest task in the world," continued the dealer, as he placed a new chain and a number of small parts in a box preparatory to depositing them in the sidecar. "For example, one of my patrons who lives about two miles outside the city had a spill a few days ago and it was impossible for him to get the machine into town for repairs without carting it. He notified me, and a little while ago I rode out to see what damage had been done. Now I am going out to make the repairs. When the rider returns home tonight he will find his mount in good shape again, and he will be a strong booster for me from this time forth. I'd have a hard time carrying tools and repair parts without the sidecar, and besides this is the kind of a job that two men can work on to good advantage. My assistant will help me on the work and then we will buzz back to town again.

"Speaking of buzzing reminds me of another engagement," panted the veteran as he bounded about the shop and finally came to rest beside the counter long enough to make a hurried note on a writing pad. "One of my latest sales prospects is a chap who goes into New York every day, and I am going to meet him at the station at 6 o'clock this evening with my sidecar outfit and whisk him out to his home. That will save him a twenty-minute trolley ride and give him a fine chance to look over my machine; he's as good as landed this minute. He is ready to buy, but he doesn't know it. Let me get him beside my motor for a few minutes and he'll be one of us." This sounded like real business.

HOW THE SIDECAR PAYS FOR ITSELF.

With that the veteran ran out to the sidecar outfit, his assistant had the motor purring in a jiffy, and before I reached the curb they were turning a corner a block away. Then I strolled back into the shop and engaged the mechanic in conversation.

"The boss appears to be making the most of his sidecar," I remarked. "I have never seen him as enthusiastic as——"

"Say," interrupted the doctor of motor troubles, "you haven't seen him at his best yet. He's been so busy for the last week that he hardly takes time to eat, and that sidecar is turning the whole trick. He's scaring up prospects all over the county, and the minute he gets a line on a 'maybe' buyer he's in that sidecar, with Tom driving the machine, and off they go to start something. He hasn't been trying to sell sidecars, but two of the boys have seen what he can do with his and they have forced orders on him. Two or three others are just about ready to follow suit. Oh, yes, that sidecar has paid for itself already, and it's put more steam into the boss than I ever saw him have before.

"At first he wouldn't allow us to carry anything in the sidecar that might scratch it," continued the mechanic, "but now I believe he would try to move a small house in it if the idea struck him. You see, he's going to keep the one he has for rough service and get another one for demonstrating and pleasure trips. No matter what kind of a problem comes up the boss thinks of his sidecar, and about seven times in ten he finds a way to make it help out."

AN ENTHUSIASM BREEDER.

In further conversation with the mechanic I learned that my friend the dealer had covered more miles on the road with his sidecar in two weeks than he had ridden during the whole of the 1912 season.. He had not been what you could call an enthusiastic rider in past seasons, and his road work was confined almost entirely to short Sunday and holiday trips into the country. It followed that his acquaintances among the riders of his district were comparatively few, and that a motorcyclist had to visit his place of business before coming in contact with him. This was a poor policy, for the wise dealer knows that much business can be talked over in an informal but result-getting way during a social jaunt.

EARL V. FRITTS, of Oneonta, N. Y., and his new Thomas "65" aeroplane, are shown in the accompanying photograph. Having completed his course at the Thomas school of aviation at Bath, N. Y., Fritts received his pilot's license on February 14. Fritts is also a motorcycle enthusiast and conducts the Indian agency in Oneonta. Walter E. Johnson, instructor at the Thomas school, under whom Fritts studied aviation, is also a full-fledged motorcyclist, having ridden nine years. When not flying he is usually on his motorcycle.

A. F. POST, Pope enthusiast and winner of the recent Portland (Ore.) hill climb, appears in the accompanying photograph. The contest was held under the auspices of the Portland Motorcycle Club, and the climb was over a course of 1,940 feet. Post's time was 41⅕ seconds; Brush, riding a Harley-Davidson, finished second in 48⅘ seconds; Carlson, Thor, third, in 50⅘ seconds; Harrington, Theim, fourth, 54⅖ seconds, and Farnum, Excelsior, fifth, his time being 54⅗ seconds.

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ECLIPSE

The Brake You Can Trust

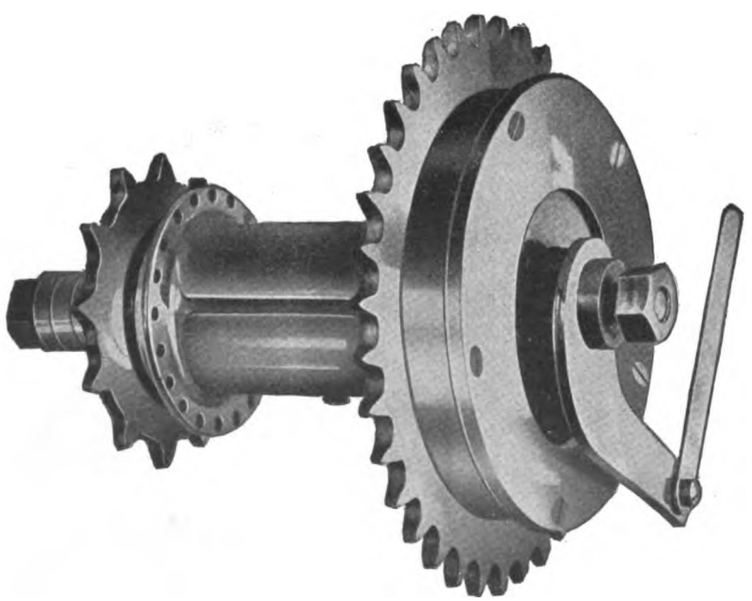
"In time of peace, prepare for war"

Dealers, now is the lull before the storm—of orders for the Eclipse Multiple Disc Brake and the Eclipse Free Engine Clutch. In this period of calm before the opening of the season you have an opportunity to take a careful inventory of your stock of Eclipse Brakes and Clutches.

Be prepared! Experienced dealers realize the poor impression conveyed by being "all out just now." The would-be purchaser may go to the other fellow—and you lose a customer.

We earnestly counsel all dealers to lay in a heavy stock of Eclipse Multiple Disc Brakes and Eclipse Multiple Disc Clutches NOW. Believe us when we say that the demand will justify the supply.

Take stock now of your requirements—and get your order in to us **at once.**



Eclipse Machine Company

Elmira - - - New York

H. T. ROBERTS, Selling Agent
Railway Exchange Bldg., Chicago

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MOTORCYCLE ILLUSTRATED

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CIRCULATION THIS ISSUE MORE THAN 14,000 COPIES.

IMPORTANT.

OWING to its large circulation, it requires two full days of 24 hours each, after the last form has closed, to print, bind and mail a full edition of MOTORCYCLE ILLUSTRATED. In view also of the fact that this publication is read in more than 2,400 different cities, towns and villages in the United States, its wide distribution demands that each issue be placed in the mails not later than noon every other Thursday, the date of publication. In order to make the mails at this time, forms must close not later than 6 p. m. Tuesday, and advertising copy cannot, therefore, be handled if received later than Tuesday morning.

RECEIPT OF TEXT MATTER.

This applies also to text matter. Photographs should reach us not later than Monday morning preceding each date of issue. They will be given better attention if reaching us the Saturday preceding.

CORRESPONDENCE.

MOTORCYCLE ILLUSTRATED requires correspondence and subscription agents in many towns where the paper is not already so represented; we pay a liberal commission to subscription agents, and the best space rates for text-matter, drawings and photographs.

PHOTOGRAPHS.

Drawings, photographs and manuscript not suitable for publication will be returned if sufficient stamps are enclosed for the purpose. In every case, photographs should be plainly marked, so that they may be properly identified.

EQUIPPING YOUR MOUNT

THIS is the season when every thoughtful motorcyclist is giving consideration to the equipment of his mount, and striving to select the accessories best adapted to his individual needs from the great variety of attractive products offered by the manufacturers, and for this reason recent numbers of MOTORCYCLE ILLUSTRATED *have given special attention to fittings and supplies. This policy will be continued in the April 17 number, which will deal at length with a standard article of equipment.*

It is the intention to treat these subjects so that the rider will be aided along practical lines in fitting out his machine, and to this end experienced motorcyclists will write of their experiences and discuss the subjects in their various phases. These articles will be fully illustrated, as usual. They imply no curtailment of the regular editorial and pictorial features of MOTORCYCLE ILLUSTRATED, *and are presented with a view of meeting the need, felt by all riders at this season, for information that will aid in placing the trusty mount and its equipment at their best for the coming summer's work on the roads.*

EDITORIAL VIEWPOINTS

SPEAKING of motorcycle progress, there is food for thought in the following statement from a well-known accessory house: "Four years ago a couple of truck-loads of our catalogs would have supplied every motorcyclist in the country; now our dealers' list alone is as large as the riders' list was then." Still growing, too.

A SEASON OF EXTENSIONS

"HAVE you completed your 1913 extension yet?" is a query that is becoming almost as common among motorcycle and accessory manufacturers these days as the conventional remarks anent weather conditions. On all sides factories are being enlarged and ground is being obtained for still further additions; in several cases plans are already well developed for new buildings to be erected early in 1914. All of which goes to show that we are setting a rapid pace—and that we are in a mood to maintain it.

THE DEBUT OF THE CYCLECAR

MODESTLY, as befits a newcomer, but with businesslike persistence, the cyclecar has been working itself into the good graces of American motorists for several months past, and now a Philadelphia firm comes forward with the first model to be presented formally for the consideration of enthusiasts in this country. That the cyclecar will find a field open to it here, as in England and several continental countries, is quite certain and in time we may find it a dangerous rival of the sidecar. Before it assumes this position, however, its claims to economy as well as comfort will have to be demonstrated in road service, and the manufacturers appear willing to make their bid for patronage on this basis. Under these conditions the unbiased motorist can do no less than welcome the cyclecar and withhold judgment until the newcomer has been given an opportunity to show its mettle.

DENVER'S DISPLAY OF HOSPITALITY

DENVER wants the 1913 F. A. M. convention and her boosters are embracing every opportunity to say so. When Director Sauer stepped off the train in the Mile-High City a few days ago, on his transcontinental lecture tour in behalf of the Federation, he found no less than three hundred motorcyclists on hand with their machines to welcome him, and the procession of riders that followed the official automobile through the streets was three-quarters of a mile long!

Such scenes are rare. It is far from a simple task to bring three hundred—or even one hundred—riders into line for a demonstration of this character, and that Denver succeeded in doing it is striking proof that the city harbors a wholesouled spirit of co-operation among its motorcyclists of which the riders and the F. A. M. may well be proud. Should the next national assembly go to the busy Colorado city it may be taken for granted that the program will not run short on hospitality.

THE AWAKENING OF THE SOUTH

IN past seasons reports from the southern states led to the conclusion that motorcycle dealers were not as plentiful throughout this section of the country as the opportunities for business appeared to warrant, but the last month has brought an entirely different story from the Sunny Southland. Nearly every city of note now has an agency or two and scores of the smaller towns, even in comparatively remote districts of the South, boast squads of enthusiastic riders. It is roughly estimated that 25,000 motorcycles will be sold in this district before the close of the present season, and already an excellent start has been made toward the fulfillment of this prediction.

In some sections of the South good roads are rare, but the riders are learning that 1913 motorcycles are designed to negotiate anything short of a morass and with this growing confidence in the serviceability of the machines has come an unprecedented demand for them. Heretofore dealers in many Southern cities have experienced difficulty in striking a fair average with their sales; now they are haunted by the fear that the manufacturers will not be able to ship machines fast enough. From now on the South may be depended upon to figure as it should in motorcycledom.

THE CANADIAN CUSTOMS PROBLEM

WITH the touring season almost at hand and all indications pointing to a closer bond of fellowship than has ever existed before between American and Canadian motorcyclists, attention is being called to the necessity for a more businesslike interpretation of the Canadian customs regulations as applying to riders who wish to take their mounts across the Dominion border from the States. Elsewhere in this issue is printed a letter from an American motorcyclist who states that a deposit equal to about 35 per cent. of the value of his machine was demanded when he attempted not long ago to cross into Canada, while a recent announcement from a semi-official source is to the effect that automobile customs regulations at the border apply also to motorcycles, except that the deposit to guarantee re-exportation of a single-tracker is $10, as against $25 for a motor car.

All in all, the American motorcyclist appears to be pretty much at the mercy of the Canadian customs officials, and by way of contrast several Dominion riders have written that they experience no difficulty with the American customs department when crossing from Canada to The States. A little co-operative investigating and a few suggestions by the F. A. M. and the C. M. A. would probably clear the horizon to some extent, and at least permit the American rider to learn the conditions he will be confronted with when he attempts to take his machine over the line.

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ENGLISH NOTES BY "BRITISHER"

An English Model with Completely Enclosed Transmission; the Unique Stellar Two-Stroke with Shaft Drive; How the Ariel Foot-Starter Operates; a Typical English Non-skid Tire and Something New in the Way of a Spark Plug; a Combination Bracket so designed as to Carry Both Lamp and Generator.

THE three-speed hubs have been all the rage over here for the past twelve months, and the two-speed gear will soon be as dead as the dodo. But experience has elucidated two pretty obvious defects in the standard three-speeder. The extra weight (10 pounds or so), concentrated in the back hub, makes the tail of the machine more bounceable than ever over bad going, and, as your readers may know, there are hardly any spring frames over here, except the imported Indian. Furthermore, these three-speed hubs render the back wheel very awkward to take out and replace. The clutch and gears are operated by slender push rods, sliding in the bowels of hollow spindles, and actuated by bellcrank connections at their extremities.

All these wee flimsy details have to be carefully taken apart and set up again in exact adjustment when a tire has to be changed. As a consequence some makers are experimenting by mounting the three-speed hubs in a sleeve brazed into the frame amidships, so that they are transformed into countershaft gears. The favorite dodge is to use an enclosed chain as the primary item, and then to take a belt off a big pulley fixed to the driving spindle of the gear. This centralizes the extra weight, and permits the rear tire to be changed within ten minutes.

SOME ODDS AND ENDS.

Tiny oddments make a great difference to the comfort of a rider, and cute fitments are being marketed by Herbert Terry, of Redditch, England. Among these we have noted handy spanners of the multiple tool type, which are just the thing to fit those awkward nuts which are not quite standard size. Another is a vest-pocket screwdriver of unique design. It gives as strong a twist as any long-handled garage tool, and its four business ends are of different thicknesses and will provide a fit for the finest and broadest slots on any motorcycle screw. There is a 25-cent clip to hold the schedule route card in competition work; it is not so swanky as the mahogany frame with cut-glass window type, but it suits the businesslike pothunter. Another is a patch nipper; it holds a patch in position over a puncture, while you lean over the fence and make eyes at the farmer's pretty daughter.

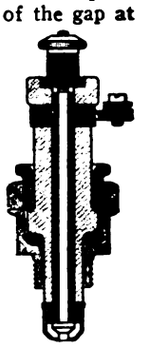
A GOOD NON-SKID TIRE.

I notice that your tire makers seem pretty faithful to the studded type of tread, which, of course, has a tremendous vogue in England as well. However, my favorite tread is the Kempshall non-skid, as illustrated herewith. The print shows a very heavy rubber tread, in which are sunk deep sucker holes. I find this tire most economical in use. A standard 26-inch x 2½-inch cover costs me $18, as against the $10 asked for a rubber-stud tread. But the $18 tread runs 4,000 miles, and the $10 about 1,500. Moreover, the wee rubber studs on the standard tire soon wear flat, and the tread then fails to serve as an anti-skid; whereas the vacuum suckers of the Kempshall are effective until the beads rip off the walls or the casing bursts.

This tire has two defects, which must in fairness be mentioned. It sucks up a lot of dust, and it rolls a trifle in fast corner work, owing to the breadth of its flat tread. But taking it all round, it is the best touring tire I ever rode; and it always goes through a six-days' trial without any attention whatsoever.

A DOUBLE POLE PLUG.

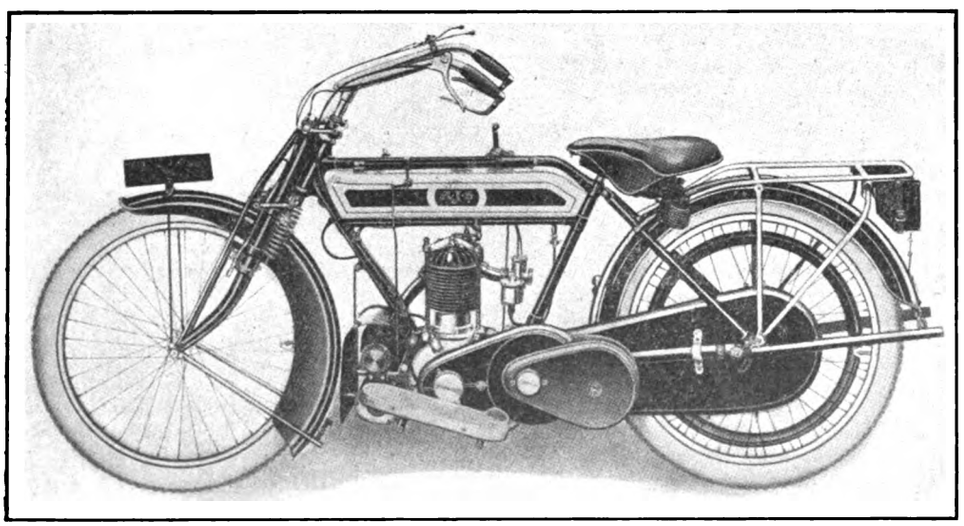
The fierce competition for short-distance records with small engines on our Brooklands track has led to a close study of minutiæ, and one very successful rider has paid particular attention to the sparking plug problem. His first discovery was to the effect that the best combustion at high speeds was obtained with the aid of a big gap between the points of a plug. Unfortunately it was almost impossible to start an engine with a gap suitable for tremendous speed. He made a few experimental plugs designed to admit of the gap at the points being varied in riding; but these plugs were complex and unreliable.



At last he hit on the idea of using two separate plugs, one over the valve chest, and the other over the centre of the piston. When tested, he found that this plan gave him as rapid and complete combustion as the variable gap. It was, however, a little difficult to get two practically simultaneous sparks from a single magneto, and at last Sir Oliver Lodge came to his rescue with a double pole plug as illustrated. The drawing shows how both poles are insulated, so that the current, after jumping the gap, can be led away to a second plug, and give a practically simultaneous spark thereat in series. Incidentally, one may add that no plug is more scientifically constructed than the Lodge. The metal body and its interior insulators are selected to possess as nearly as possible the same coefficient of expansion, and just sufficient freedom of movement is left to cover the difference. These plugs are made in myriads of sizes, so that the plugs may not project unduly, or be buried out of sight in the pockets of the valve caps. It is unfortunate that no two engine designers allow for the same "reach" of plug in designing their cylinders.

AN IDEAL LAMP BRACKET.

I append an illustration of the type of lamp bracket most popular on this side. As the drawing shows, the bracket consists of a double fork, designed to carry a headlamp at the forward end, and a generator at the rear extremity. The handlebar clips are constructed so as to be positively vibration-proof, all frictional surfaces being lightly milled, while the spring of the two clips encircling the bar acts as a lock on the nuts. By unscrewing the two large nuts at the top, the whole bracket, com-



A. J. S. Lightweight Two-Speed Model, Rated at 2¾ h.

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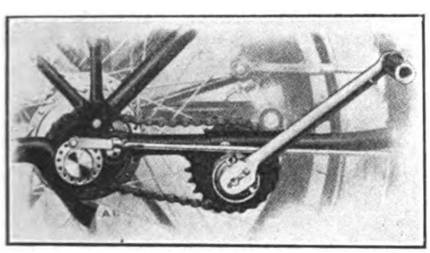
plete with lamp and generator, can be lifted bodily off in 60 seconds, and as swiftly replaced. Thanks to these ingenious holders, very few English riders bother to carry lamps unless they expect to be out after dark; and machines are thus easily stripped for speed work.

A HANDY TOURING MACHINE.

Light and medium-weight machines are becoming very popular in Great Britain, as the growth of variable gears combines with the excellence of our roads to render such machines efficient. The 2¾ h. p. A. J. S. could be guaranteed to climb any rideable grade in the United States, and yet the machine scales no more than 150 pounds, ready for the road, and has an engine of 74 mm. bore by 81 mm. stroke (equalling 348 cc. capacity). As the print shows, the machine is driven throughout by totally enclosed chains, and the light impulses of the small engine are softened by a clever crankshaft cushion. The small excrescence on the chaincase houses a kick starter.

THE ARIEL FOOT STARTER.

The Ariel machine adheres closely to standard practice, but I refer to certain refinements in its starting arrangements. A small pedal, mounted on the outside of the crankcase, controls a dummy exhaust cam, which operates an extra rocker in the valve gear and makes full compression impossible so long as the pedal is in the active position. After setting the "decompressor" to work, the driver kicks the long lever shown in the cut,

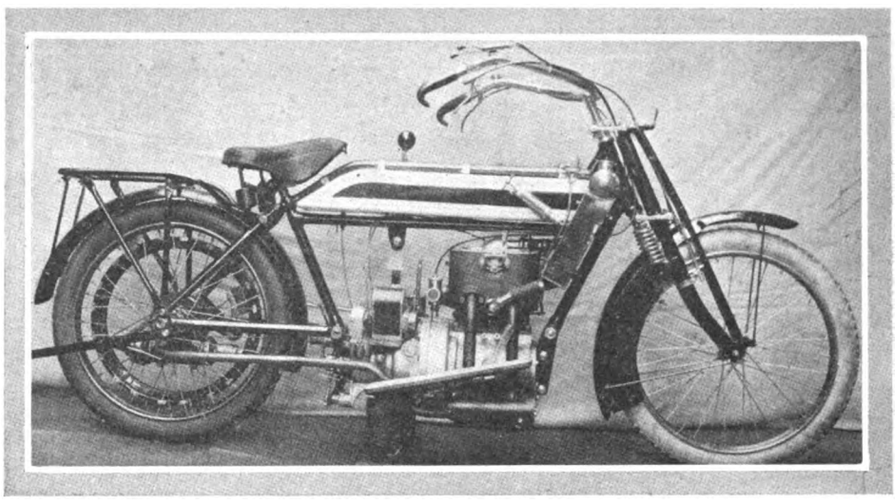


and the engine starts. He then releases the decompressor, lets in his clutch on the bottom ratio of his three-speed hub, and moves gracefully off.

THE WEAR OF THREE-SPEED HUBS.

I don't doubt that manufacturers on your side are interested in the durability of our three-speed hubs. It may seem impossible to enclose a strong three-speed epicyclic gear and 24-plate multiple disc clutch in a hub not exceeding 6 in. in diameter or 10 pounds in weight. I was very sceptical myself twelve months ago, and as soon as the hubs came on the market I got two 3½ h. Triumph motorbicycles and fitted an Armstrong hub to the one, and a Sturmey hub to the other. I did my best all last year to butcher them both, treating the gear shamefully; for instance, whenever I wanted a sudden braking effect I threw in the bottom gear, no matter what pace I was travelling; I used them with and without sidecars; I lent them to novices, and generally did my level best to chew them up. I never had a mite of trouble with either of them all last year.

Last Christmas I sold them both. One is still going great guns; the other chewed up last week, and when I got home I found the hub shell had burst. The makers repaired it gratis under their guarantee. The pinions, holders, pushrods, bearings, were all in new condition, and a slight inequality in the pressing of the shell out of the flat steel plate was responsible for what I believe is an uncommon mishap. I may add that I drove the machine home with the bowels of the hub all adrift by simply lashing the spokes of the belt rim to the spokes of the rear wheel, top gear only being obtainable. Of these two hubs I acquired a strong preference for the Sturmey, partly because it drove solid on the top ratio and so allowed me to get a bottom gear of 9 to 1 with a 4½ in. pulley, partly because it was absolutely free from backlash. The Armstrong drove solid on the intermediate ratio, so that my gears with a 4½ in. pulley were about 3¼, 4½ and 6½ to 1, whereof the top gear was far too high, and the bottom gear insufficiently low for freak hills, while this hub showed a distressing backlash when the engine was picking up. I am now using 1913 samples of both gears, and the new Armstrong is ideal. It has conquered its backlash. it drives solid on the top ratio and it shows an even bigger ratio drop between second and third speeds than the Sturmey, so that a very low gear is obtainable with quite a decent pulley diameter.



Stellar Two-Stroke, Two-Speed Twin with Shaft Drive.

THE SPRING TRIALS.

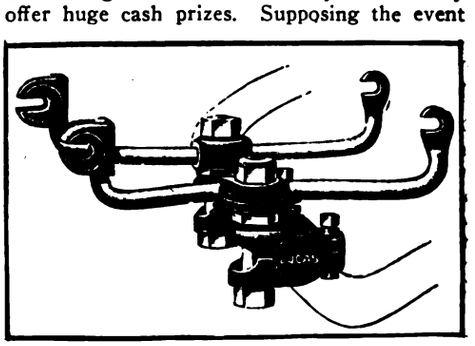
We have already held three or four important endurance runs, all of which secured record entries, and gave the officials immense trouble in the finding of a winner for the premier cup. In each event out of 150 or 200 riders, quite a large percentage tied for first place, by climbing all the very freakish hills non-stop in spite of awful weather, and by being dead on time at all the main checks. A winner was found by means of split second timing at secret checks—a rotten system, robbing the events of all fun and sport; but who can suggest a sound alternative? There is a plan to award the cups to the rider who, other things being equal, comes through on the highest gear ratio; but there are objections to the notion. The cyclecars have quite borne out the pessimistic opinions expressed by myself and other journalists. The majority of their makers shrank from submitting their cars to severe public tests; and only a small percentage of those that appeared covered themselves with even faint glory.

SOME 1913 FIXTURES.

The T. T. races are dated for June 2 and June 4. The Isle of Man authorities have made stringent conditions, as the islanders were disgusted with the rombustious conduct of certain "knuts" last year. The 500 cc. and 350 cc. machines will both race on both days, so as to give a longer distance for the medley. Complicated regulations are being drawn up for the second day, on which the senior and junior machines will be separated for the concluding laps of the race, and started in a fashion which will cause the first machine home to be the actual winner, so rendering the race intelligible to the lay spectator, without the aid of a comparative time card.

At least this is the idea, but if the first day does not weed out the entry very freely, the dodge may fail. At present the scheme is that all machines will be put under lock and key during the intermediate day; that the junior machines will race a further two or three laps alone on the second day, and that they will all be stopped at the beginning of the last lap (37 miles), and restarted at intervals depending on their net time gain on their rivals. The first home will then be the winner. The senior machines are to be similarly treated in the afternoon. What language will fly around if one of two men, finishing the penultimate lap on each other's heels, cannot get a start when the flag falls for the last lap?

The Irish Club proposes to celebrate the centenary of the Irish Gordon-Bennett Race by holding a gigantic road race for cyclecars on July 2. It should be great fun, but they will not get much of an entry unless they offer huge cash prizes. Supposing the event



Improved English Lamp Bracket.

materializes, I anticipate great fun in watching the tiny little 5 cwt. vehicles gradually shake themselves to pieces at 60 m. p. h. on the rough Irish roads. It should really be a case of the hare and tortoise; and if the race is over a long distance, the machine which averages a shade over legal limit may be the only one to finish!

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QUESTIONS and ANSWERS

TWO-SPEED GEARS

W. E. WHITAKER.—In this country, the N. S. U. two-speed gear is adapted for V-belt machines. It is at present obtainable from some of the accessory manufacturers or fastors and Geo. P. Jenkins, 256 West 55th street, New York City, has two or three in stock. For either flat or V-belt drive a hub two-speed would be applicable, and the Miami Cycle & Manufacturing Company, 300 Hanover street, Middletown, Ohio, have such a gear fitted to their 1913 chain-drive machines. It might be possible for you to obtain one for your machine, so address Mr. Frank Valiant, care of that company.

The Armstrong three-speed gears and the Sturmey-Archer hub gears are not as yet handled in this country and are not guaranteed for motors above six horsepower. The makers are: The Armstrong Three-Speed Gear Works, Icknield street, Birmingham, England, and Sturmey-Archer Gears, Ltd., Nottinghom, England. The Rover motorcycle is made by Rover, Ltd., Coventry, England. There are no agents in this country.

BELT AND CHAIN-BELT

BELT DRIVE.—There are a variety of forms of the V-belt in use, the chief being the rubber and the multi-ply leather. The rubber belt is made up with a canvas core or "carcass" on which is deposited rubber in the form of the trapezoid which distinguishes the V-belt. An example of this form is the Shamrock-Gloria, used on the N. S. U. machines. The leather belt consists of two or more plies of leather to which are riveted thin blocks of leather at regular intervals. This form can be seen on most American V-belt machines. The Wata-wata belt consists of a series of sections made of leather strips; each strip is fastened between the corresponding strips of the preceding and succeeding sections, giving a very flexible construction.

A chain-belt is made up from a chain on which is mounted leather or rubber segments shaped to fit the pulleys, at regular intervals. The leather segments are often mounted on metal pieces forming the side links of the chain. This form of transmission is generally used over regular V-pulleys, but can be used with a sprocket in front and a pulley on the rear wheel if desired. It has not come into use as yet here. The makers of Renold chains have such a chain belt for sale. The United States agent is Peter Frasse & Company, Canal street, New York.

SHOCKING APPARATUS.

J. B. C., Canada.—The "shocking" apparatus referred to has one connection from the battery to ground and also one side of the coil. The other high-tension connection from the coil goes, apparently, to the frame, so that when the inquisitive bystander touches the frame he completes the high-tension circuit by grounding that end going to the frame, and receives a shock. The circuit is: coil, frame, man's body, ground, and return to coil.

COMPRESSION TROUBLES

RICHARD ATWILL.—If you will send us the name of your machine, we can tell better where the trouble lies. The methods of relieving compression are various: on the R-S machines, the exhaust valve tappets are raised by a cam piece which is rotated by a lever connected by Bowden wire to a latch under the right grip. The Emblem has a similar arrangement. The Eagle has the lifter operated by twisting the right grip, which also operates the throttle, and quite a number of other machines have the same arrangement. The Excelsior and Indian push on the lifter lever to raise the valves.

The *Motorcycle Manual* gives helpful information in practically all cases of troubles regarding compression, but we doubt if it would cover the case you mention. Let us hear from you as suggested before.

SHIPPING MACHINE ABROAD

F. ZIMMERMAN.—The rate from New York to Bremen, via American Express Co., the machine being taken along as personal baggage, would be between $4.50 and $6, according to the prevailing season rates. The machine would have to be crated, of course. Insurance is not included in the above figures. Apply to the American Express Company, stating at what time you will go abroad.

N. S. U. GEAR

MARTIN DREASHER.—See the answer to W. E. Whitaker in this issue, in reference to the N. S. U. two-speed gear. Geo. P. Jenkins, 256 West 55th street, New York City, has several in stock at present which can be fitted to your machine.

BREATHER ACTION

S. ANDREWS.—The breather should relieve any compression in the crankcase, and this should have no effect at all on the compression in the cylinder. If the valve relieves the crankcase compression, it is operating correctly. Heating the carbureter in summer might give a mixture more readily fired by the spark, but not when the weather is very warm.

AEROPLANE INFORMATION

AERO.—Communicate with *Aeronautics*, 250 West 54th street, New York, for answers to your inquiry. We cannot discuss biplane designs in this department.

F. N. MACHINES

"BELGIQUE."—The F. N. single 2½ h. and four-cylinder 5 h. machines as far as we know are represented in this country by the American F. N. Company, Newtonville Station, Mass.

USE OF CAMPHOR

H. C. GREENWOOD.—For the use of camphor see page 47, issue of March 20, in letter from Pearsol Sergent.

Members of the Pittsburg Press M. C. lined up before the Schickel and R-S Agency in Pittsburg, Pa., preparatory to a recent road trip.

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TOLD AMONG FRIENDS

WHEN I MEET A CHEERY HELP-FUL WORD IN MY TRAVELS . . . I WELCOME IT, GIVE IT A COMPANION- IF I CAN AND PASS IT ON . . . .
Carlyle

MORE ABOUT TWO-SPEED GEARS

EDITOR.—F. W. V.'s letter has brought out a number of inquiries as to the hub-two-speed gear he mentions, but so far F. W. V. seems very modest about letting the rest of his fellow-riders in on his "find." There is a loud yell coming for two-speed gears, particularly for sidecar work, and only four or five motorcycles that fit them. But where a rider who wants to fit his favorite bus with a variable gear can get one is really the question, and if F. W. V.'s gear will fit any machine he has brought out the answer to the call from a large number of riders who do not own mounts of those makes supplying special two-speed models.

Why do not some of our big accessory manufacturers develop a variable-gear? They have the machinery and tools suitable for the purpose. Instead we see new brakes, horns, lamps, speedometers, exhaust-whistles and tandem-attachments every six months, and Lord knows, there are plenty of good ones already on the market. But the two-speed gear is, as far as the majority of riders are concerned, about as rare as a hen's tooth and as easy to procure as a dodo's egg. MORGAN DOUGLAS.

ADVICE FROM NORTH DAKOTA

EDITOR.—In your issue of March 6 you outline the plans of the National Highways Association, of Washington, D. C., and I notice that the main national highway (No. 1, or northern) follows the trunk line of the Northern Pacific railway through the state of North Dakota. I wish to state that from Bismarck to the western border of the state there are no roads at all suitable for a motorcyclist; in fact, the only practicable way of traversing this portion of the state at present is on horseback.

I would advise all tourists crossing the state to go via Grand Forks and Williston; this will afford good traveling across the entire state, and is the route the Twin Cities tourists followed to Helena, Mont., two years ago. I am enclosing a rough map which shows the proper route to follow in crossing North Dakota, and trust you will be able to print it, as it may save motorcycle tourists serious trouble. I am writing because of the fact that the announcement of the National Highways Association may lead riders to believe that there are ridable roads along the route shown in the map which is being circulated.

Wolford, N. D. W. C. WHARTON.

A FEMININE BOOSTER

EDITOR.—In your issue of March 20 I read with much regret that our English cousins think we have no girl riders in this country who pilot their own mounts, and I am writing to say that there are at least a few in the metropolitan district. It is true that there is no special motorcycle model for the American lady rider, and perhaps that explains why so many girls ride tandem, but those who do ride solo should, in my opinion, receive credit for the manner in which they handle their machines.

We are not very strong in numbers on this side as yet, but we have some lady riders who are not to be overlooked. For example, there is Miss Inez Patterson, the "Short Grass Girl," who has piloted her "four" over a lot of hard going, and Miss "Cy" Woodman, who is fighting her way across the country from New York to San Francisco on her little "four." As for myself, I have not gone in for transcontinentaling, but I have put many a mile behind me on my 7 Indian two-speed. My log-book contains accounts of long journeys, some hardships, arrests and other experiences equally interesting.

MISS FRANCES L. LOEB.
Bronx, New York City.

CROSSING THE BORDER

EDITOR.—I also had an annoying experience last summer when I tried to cross the Canadian border at Niagara Falls, as a deposit of $85 was demanded, and I did not have that amount with me, as I understood that a bonding company was prepared to send motorcycles through on bond for the sum of $5. The customs officials at Niagara Falls and at Toronto denied knowledge of a company for bonding motorcycles, although it is the general practice in regard to automobiles. This caused me a great deal of inconvenience, as I was compelled to ship my machine by boat to Toronto, where it was kept at the dock until I returned by train from Cobourg. The money was returned by mail to me several days after I reached home.

It would seem very desirable to secure a reciprocal understanding for American and Canadian riders similar to that prevailing between the different states, but this would probably require more common sense than the makers of international laws possess. Canada is too close to us to be regarded as a foreign country.

Allegheny, Pa. H. T.

EARLY ANNOUNCEMENTS

EDITOR.—One of the leading motorcycle journals published an article recently from a veteran dealer in which he referred to the dilatory methods of some factories in announcing their new models and the consequent delay in commencing shipment. He stated that the dealer whose factory began making shipments of the new models in the fall had an immense advantage over dealers whose factories did not ship in quantities until late the following spring or early summer. With the new rule, now put in force by most of the factories, which require the dealers to make deposits on a certain definite number of machines or go without, late announcements work a double hardship.

Not only is he forced to lose many sales, but he is compelled to accept a large number of machines at the end of the season, about August or September, when any riders still in the market have no desire to purchase before the announcement of the following year's models, which may feature radical improvements. The unfortunate dealer is then forced to sell his unsold balance at a sacrifice.

A DEALER.

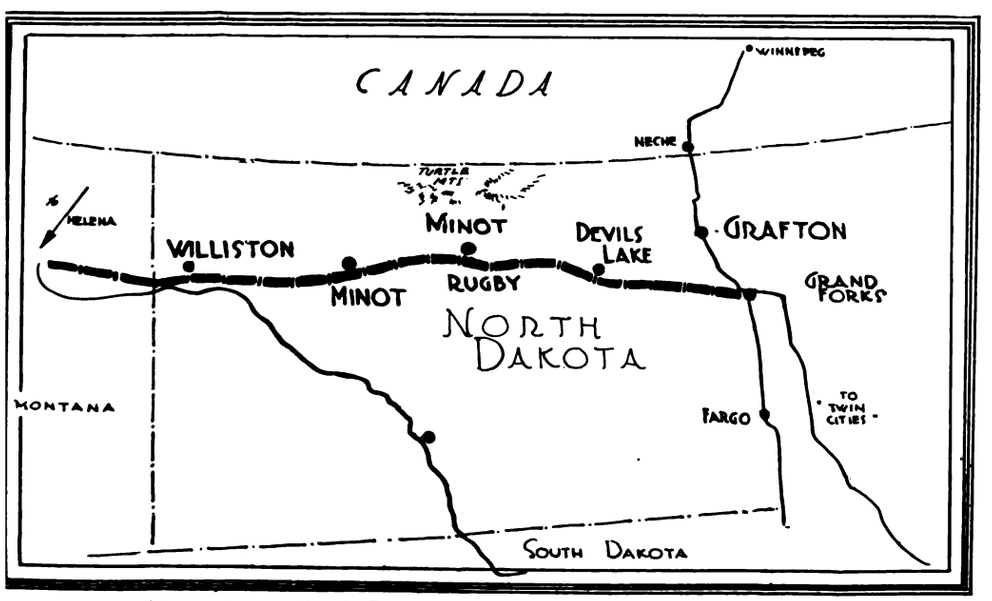
BELTS AND LAGGING

EDITOR.—In the March 20 issue there is a letter from W. H. Kutscher about flat-belt-drive, in which he advises putting electricians' tape on the naked pulley before applying the lagging. This is an excellent idea, which I have seen put in practice here in New York on a number of mounts, but what I would like to ask is: If the design of a flat-belt machine is correct, why should any lagging be needed at all? Belts running under all kinds of conditions in factories and on machinery exposed to dirt and water are run successfully over naked pulleys with only a slight coating of belt dressing to act as a non-slipping medium and also a belt-preserver.

If the lagging is necessary to increase the "bite" of the belt on the pulleys, owing to dirt and water getting on them, as I have heard it stated, why not keep off the mud or dirt by efficient guards or protectors and abolish the lagging altogether? The manner in which I have seen most laggings put on makes the pulley humpy in sections and certainly doesn't make for easy running or reduce bearing wear to any extent. If the belts are not wide enough to transmit the power of the motor, the designers ought to look into the matter and remedy it. They could use a V-belt drive instead, and I fail to see the necessity of a flat belt and idler with the good free-engine clutches we have nowadays.

New York, March 29. V-BELT CRANK.

H. H. McDANIEL, Harley-Davidson agent in Madison, Wis., is a booster who never lets an opportunity go to waste, and his latest wrinkle for attracting attention to the machines he handles is a neat card in the corner of his business envelope reading as follows: "Return to the home of the '5-35,' 113 State street, Madison, Wis." Simple as this arrangement is, it has given McDaniel publicity returns. "Mac" has placed fourteen of the 1913 Harley-Davidsons so far.



Route Across North Dakota (See Letter of W. C. Wharton.)

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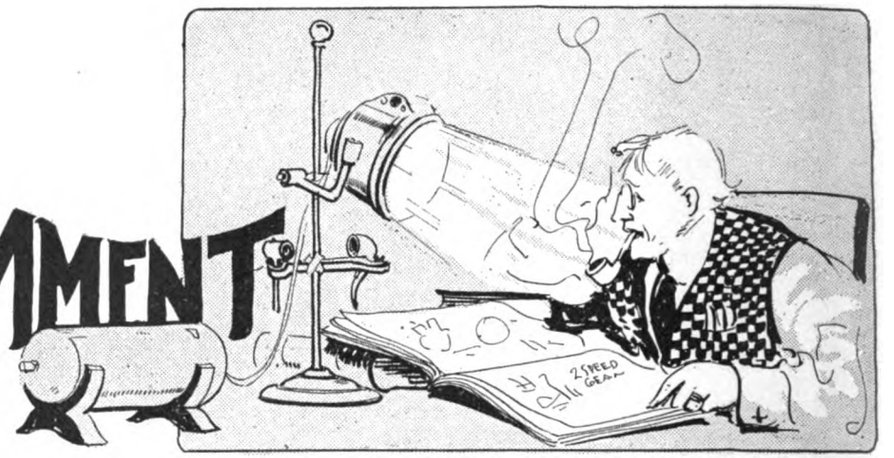
KINKS & KOMMENT

by "COURIER"



BROTHER riders have often smiled at the oblong camera case mounted between my handlebars just back of the fork head, and have made facetious remarks about lunch and portable bars. However, some of them have seen the inside of the case and have benefited by the view, for the eleven-by-six-inch box carries a spare inner tube, resting comfortably in French chalk. The folding of the tube to get it in that space is a wrinkle that I got from my automobiling days, and is one of the best ways of keeping tubes until ready for use. Here is the dope.

FOLDING A TUBE.

TO fold an inner tube, first remove the valve "insides" and then folded in two, with the valves at one end. Commencing at the other end, roll the tube in a spiral, driving the air out of it by so doing. Next fit the insides and cap; the tube will stay flat with no air in it. Unroll again and refold with the valve in the center and wrap the valve entirely with cloth or put a rubber finger on it to prevent the valve chafing the tube when the final fold is made. Turn the ends inward so that each half of the tube is folded toward the valve, and finally bring the ends together with the valve between. Fasten with broad rubber bands and put in the box. This method does not hurt the valve or its chaplet and gives natural folds to the tube. The box I carry was formerly used for a panoramic camera and is waterproof, making it desirable for tube-carrying. Wrapping the folded tube in oil-cloth will give it a fine protection, also guarding it against rubber's great enemies, moisture and light.

TWO-SPEED GEARS.

CONSIDERABLE comment has been made on a letter in the "Told Among Friends" section which treats of two-speed gears, or, rather, of hub-gears, and I have received quite a number of inquiries on the matter. I am not acquainted with "F. W. V." as far as I know, but cannot agree with him as to the hub being the ideal position for a variable gear. I think the countershaft location is superior; for one reason, that the gear, always a rather delicate device, needs the added insulation from road jars which the frame gives and which the hub-mounted gear does not get. Personally, I don't like a heavy rear wheel, especially as I have frequently to ride in grease and over knobby roads, and the wheel with the hub gear is certainly heavier than one with only the coaster brake fitted. In talking the hub location over with a friend who drives as well as rides, he mentioned that automobile designers put their gear-boxes on the rear axles, but the public is carefully kept from seeing the heavy repair bills on vehicles so fitted, and besides, a motorcycle is a different proposition. The best test would be a competitive ride between machines fitted, one with the hub gear and the other with a gear on the countershaft.

ALTERNATIVE BRAKES.

THE other day I was talking things over with a police official whose experience with motor vehicles in general has been considerable, and who mentioned some proposed legislation calling for two independent sets of brakes on all motorcycles used in a certain state. I agreed with him that there should be two on every bus, but pointed out that considerable redesigning of the rear hub would be needed to accommodate the two systems on the majority of machines. We read over the sections of the bill, and found no loophole for one brake operated in two different ways and then adjourned to a dealer's place nearby. The latter "pooh-poohed" the idea and suggested a demonstration on his own machine with a very small coaster, and, as it turned out, one in poor condition. Accordingly, he went back three squares and came on at a 30-mile clip up to the line where he was to set the brake. At that point, he stood up on the pedal, but the anchor-arm parted and he made a dive for a plate-glass window, machine and all. A catastrophe was averted by the high curb; the rider made a record slide adong the sidewalk and the machine leaped in the air and bounded backward into the street, where we both fell on it and shut off the motor. Much to the wrath of the dealer, who was only scratched and buttonless, the official insisted on measuring the distance the motorcycle had traveled, and this, counting curves and the bound into the air, was 36 feet. It was an official test, he said, before witnesses, and we almost got the dealer to say that two brakes were necessary. There was a lot of fun made over the affair, and the dealer has reaped the benefits of publicity in an increase in sales of machines fitted with another brake.

ALTERNATIVE BRAKES,

WHEN we come to think it over, there ought to be some emergency brake ready to apply when the service brake does not work properly. If all riders paid attention to their brakes, there would not be any such cavortings as our friend, the dealer, performed, but one look at the performances of lots of riders will show that they don't pay any attention to the mechanism until they have had a narrow squeak or the brake has failed them. The brake fitted to the front wheel will only act as a retarder, and if applied suddenly, may cause the whole machine to buck and heave the rider off. Belt machines can easily be fitted with a reliable pulley brake, but chain mounts will require an extra drum as part of the hub on one side or the other and a contracting band for the emergency brake, according to the present construction of hubs.

SIDECAR PASSENGER.

THE attitude of several riders toward their sidecar passengers reminds me of that of the drivers of the old flash-boiler steam carriage days. I remember in 1901 when one driver of a White steamer came in second in a hill-climb, he protested that the observer from the club holding the event had a weak heart and could not use the hand pump; therefore he lost enough time to make him come in second instead of first. Even at that early day, his protest was not allowed. So it is with the sidecar passenger; in city running, he gives the necessary signals for traffic, keeps an eye out for unusual occurrences and notifies the rider in time, and finally assists in pushing the rig, should the motor become stalled. These duties call for liveliness and endurance, not to mention quickness of perception, and it is a fine training, is sidecarring in traffic, but not for people who are timid.

In country running, or touring, there are additional duties. Picking the route, holding restless horses, "flagman" at railroad crossings, and helper in all mechanical and tire troubles go to make up these. The poor passenger may even have to do what I did once during a trip after a cloud-burst, assist in carrying the machine and detached sidecar across a nine-foot gap in the road, and assembling them again on the other side—a fifty-minute job, all told. Or his strength may be called upon to act as a drag on semi-precipices, otherwise called mountain roads. If there ever are to be sidecar events in cross-country work, the passenger ought to be awarded medals as well as the drivers.

LA VERNE M. C. MEET

MORE than 500 spectators witnessed the recent motorcycle races held under the auspices of the LaVerne Motorcycle Club, of Lordsburg, Cal. Harry Hixon, president of the club, took first place in five out of the eight events. The club has arrangements under way for races to be held July Fourth.

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NEW CLUBS AND ELECTIONS

AMONG newly organized motorcycle clubs are the following: Bayonne Motorcycle Club, Bayonne, N. J.; Dave Goulden, president; A. G. Woodward, vice-president; M. W. Chadwick, secretary; Charles Jones, treasurer, and C. R. Geddis, captain.

The Owantonna (Minn.) M. C.; E. C. Zamboni, president; Owen Long, secretary-treasurer, and John Rypka, captain.

Mineral Point M. C., of Mineral Point, Wis.; Elmer Peters, president; William Priestly, vice-president; William Hack, treasurer; W. S. Pedley, secretary; William Kislingbury, captain; J. H. Dunn, first lieutenant, and Walter Groth, second lieutenant.

Newburg Motorcycle Club, Newburg, N. Y.; Thomas Hornbeck, president; William J. Pusey, vice-president; Louis Levy, secretary-treasurer and William Lahey, captain. Richard Loundsbury is first lieutenant and John Brennan, second lieutenant.

Broadway M. C., Northeast Baltimore, Md.; George W. Lowery, president; Harry Nickels, vice-president; William Johnson, secretary-treasurer, and Pop Allard, captain.

Other officers elected at annual meetings are: Salina Motorcycle Club, Salina, Kan.; C. A. Biggs, president; Kirk Van Cleef, vice-president; Edward Anderson, secretary and treasurer.

Springfield (Ohio) M. C.; G. W. Richeson, president; James H. McKaig, vice-president; C. T. Henderson, secretary-treasurer; N. G. Grove, captain. William H. Wall, J. E. Black and Glenn Horner are the directors.

Zanesville (Ohio) M. C.; E. H. Garrett, president; R. B. Williams, vice-president; J. S. Whitworth, treasurer; Frederick Rieman, Jr., secretary; Frank Pierce, captain, and Lawrence K. Cashbaugh, lieutenant.

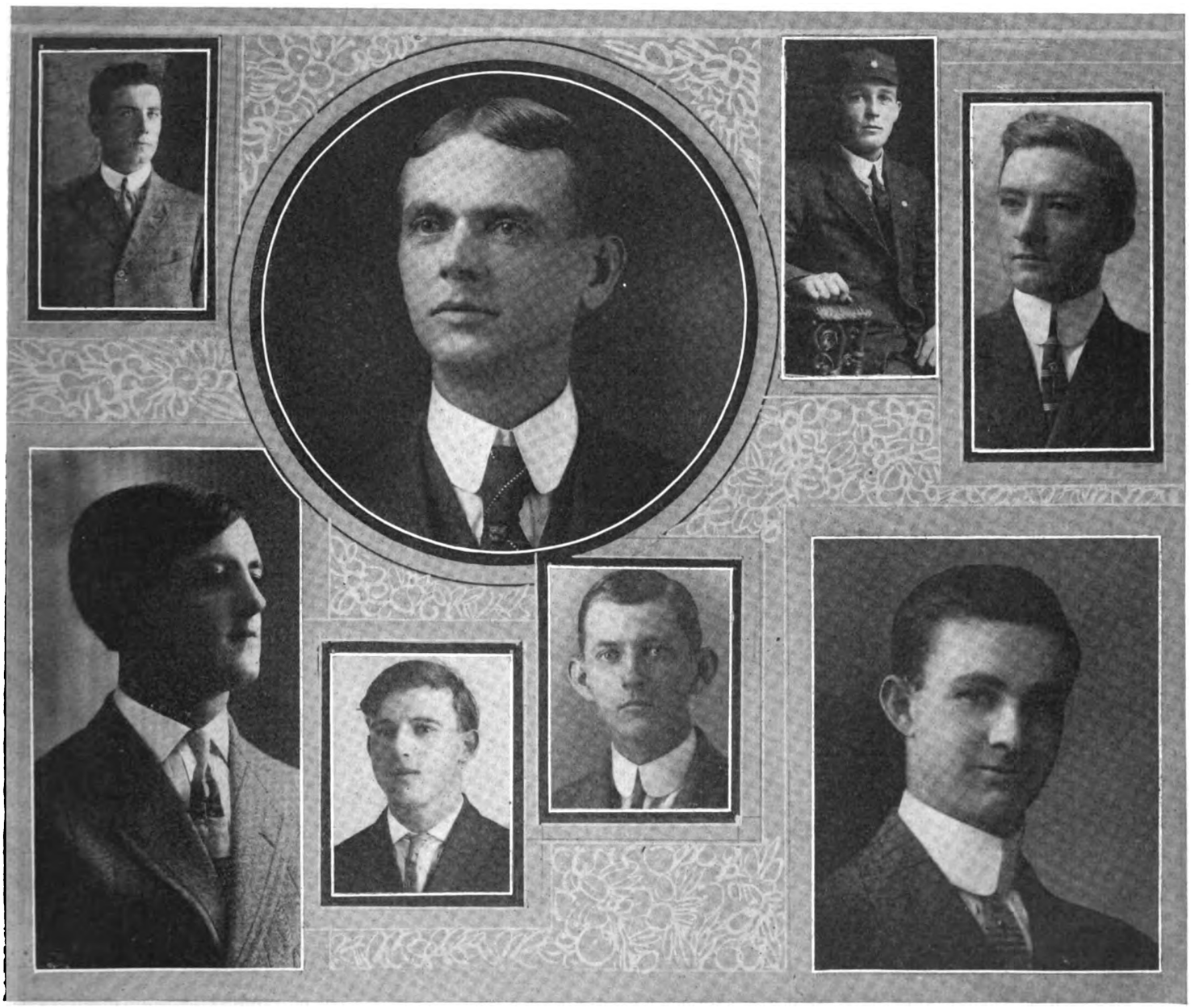
Union City Motorcycle Club, Union City, Ind.; Forest Turner, president; Milton Vaughan, vice-president; Hugh Reeves, secretary; H. Roe, treasurer, and Thurman Constable, road captain.

Washington M. C., Washington, D. C.; J. R. Padgett, president; W. J. Meyer, vice-president; John K. Willis, secretary and treasurer.

CLUB TO MANAGE SHOW

PLANS are already under way for an independent motorcycle show for Elmira, N. Y., to be held under the auspices of Elmira M. C.

HUSTLING NEW OFFICERS OF THE SAVANNAH CLUB



MEMBERS of the 1913 staff of officers of the Savannah (Ga.) Motorcycle Club appear in the accompanying photographic layout. William H. Williams, president, is shown in the circle, with R. J. Clark, treasurer, to his left. At his right are Frank Laird, first vice-president, and Martin Schroeder, second vice-president. J. S. Cafiero, secretary, appears in the lower left-hand corner, and O. A. Meyer, publicity manager, in the right hand corner. Dennis Downing, second lieutenant, and U. S. Ard, first lieutenant, are shown from left to right beneath the circle.

DURING the past month the Elmira (N. Y.) M. C. has enlisted 26 new members.

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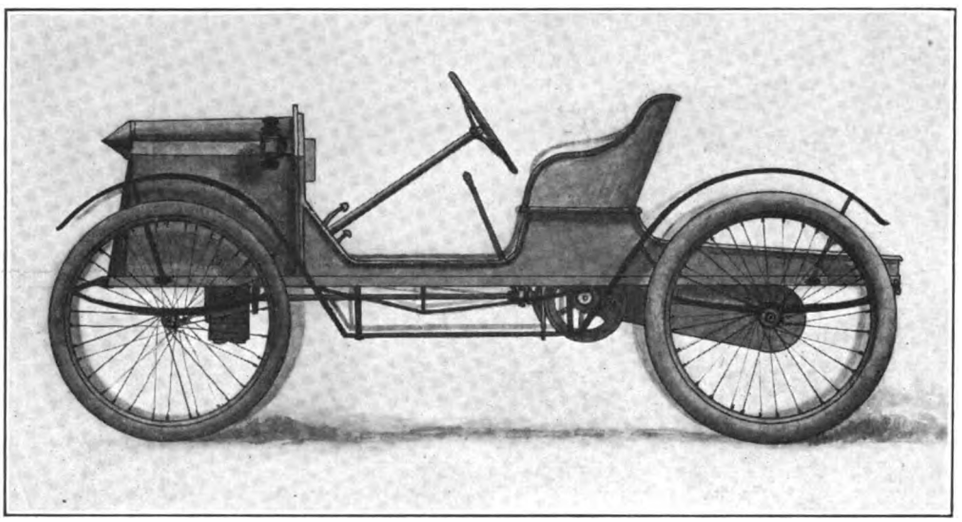
W-G CYCLECAR ENTERS THE FIELD



FROM Philadelphia, Pa., comes the first formal announcement of the production of an American cyclecar, the W-G, a neat and racy outfit which is being marketed by the Carlson-Wenstrom Mfg. Co. The company announces that in the manufacture of its cyclecar it has aimed to provide a vehicle having practically the same low upkeep as the motorcycle, with the additional space advantages of a light automobile. Special attention is called to the fact that the W-G is not an automobile, but a vehicle intended to fill the breach between the motor car and the motorcycle.

The motor is of the four-cycle, two-cylinder type with a bore of 3½ inches and a stroke of 4½ inches. The cylinders are of T-head construction, with 2-inch mechanically operated valves; the latter have nickel steel heads welded to carbon steel stems. They are adjustable and operated by specially designed lifters which permit of unusual silence in action. The crankshaft has ball bearings, and the upper and lower connecting rod bearings are of bronze. Ignition is by magneto and a carbureter of special design is fitted; the latter is automatic in action, has no springs and can be adjusted from the dashboard.

Lubrication is by the splash system and force feed. A plunger pump is driven by a cam on the cam-shaft, giving a positive feed to all parts of the motor. The clutch and transmission are of the friction type, the former combining flexibility and positiveness in action and being so designed that it requires little or no attention. The friction drive permits of almost any number of speeds, forward and reverse; the fiber disc can be removed by taking out four bolts. The drive is by chain to the rear axle, and the transmission agent is fully protected from dust and mud by a pan.

The frame of the W-G is 3/16-inch channel steel, reinforced and supported by truss rods. The springs are semi-elliptic and are fitted front and rear. Special care has been exercised to have them flexible and at the same time amply strong to stand hard usage. The spring leaves are broad and flat so that the body of the machine is brought close to the ground. The brakes are of the external type, 6 by 1¼ inches, and lined with a non-burning material. The friction drive may also be used as a brake by placing it in the reverse position. The wheels are of the standard wire type, and are fitted with 28 by 3 inch tires. The steering wheel is placed at the left side, double bell-crank steering gear being used with a 16-inch steering wheel. The speed lever is located in the center of the machine.

The body of the machine is of runabout design and the seats are of the bucket type with deep upholstering. Ample room is provided in the rear for extra tires and luggage. The weight of the outfit is said to be less than 300 pounds, and speeds from 3 to 40 miles an hour are possible with it. The W-G sells at $325 and $450, according to the style of body specified and the equipment. The Carlson-Wenstrom company also has a parcel delivery car ready, with a capacity of 500 pounds, of which details will be given in an early issue.

INVINCIBLE SPRING RUN

DETAILS are now being worked out for the second annual spring run to Southampton, L. I., of the Invincible Motorcycle Club, of Brooklyn, N. Y. The same entry fee of $2 will be charged this season as at the first run, but it has been proposed to charge 50 cents extra for post entries to avoid confusion and delay at the starting point—Bedford Rest. To encourage early entries, F. A. M. sanctions have been made to cover both May 4 and May 11, in case of rain on the former date.

The schedule for checking has been arranged as follows: Check out at Bedford Rest 6:30 to 7:00 a. m., Southampton 11:00 to 11:30 a. m., reaching Riverhead 12:00 to 12:30 noon. Dinner at Griffin House. Check out at Riverhead 1:00 to 1:30 p. m., Port Jefferson 2:30 to 3:00 p. m., Jericho 4:00 to 4:30 p. m., and check in at Bedford Rest 5:30 to 6:00 p. m. The total mileage will be about 200.

Time clocks will probably be used at all checking points to avoid disputes, and all entrants making perfect scores will receive handsome gold medals. Sidecar entrants making perfect scores will receive two medals, although only one entry fee will be charged. Cups will be awarded to the F. A. M. club having the most entries, and also to the club having the largest number of perfect scores. Entry blanks may be obtained from all motorcycle dealers in the vicinity of Greater New York, or upon application to J. C. Fawcett, 5 Willoughby street, Brooklyn, captain of the Invincible M. C.

MOTORCYCLE GARAGE AT WINSTEAD

W. S. FANCHER, Indian dealer at Winstead, Conn., has accepted plans for a modern motorcycle garage on which construction work will be started at once. The building, which will be located on the New Hartford Road, will be two stories high and 30 x 40 feet on the ground. A large assortment of accessories will be stocked, as well as standard replacements, including gas tanks. Mechanical service will be a feature of the business, with special regard for Indian riders.

A BUSY NORTHWEST FIRM

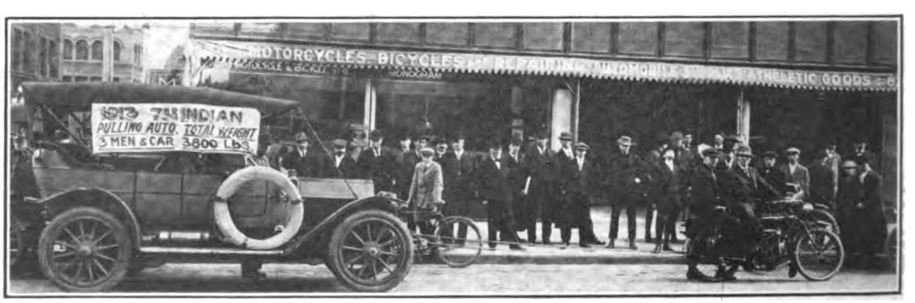
ONE of the most active firms in the motorcycle field in western Washington is the Ballou & Wright Company, of Seattle, which has contracted to handle the Indian and Emblem lines for 1913. The firm will make a service department a feature of its headquarters and Will H. Pielow, one of the best known motorcyclists of Tacoma, Wash., will be placed in charge of it.

The accompanying photograph shows a 1913 Indian in a test recently conducted by the company. The heavy automobile was towed through the streets and up some rather startling grades, to the amazement of spectators. It will be noted that the company has spacious quarters with excellent display facilities.

TRADE MEN IN HARMONY

CHICAGO, March 26.—A meeting of the Chicago Retail Cycle Dealers' Association, Inc., was held at the New Southern Hotel last Wednesday night when further steps were taken in the amalgamation of the motorcycle and bicycle trade interests of this city. The meeting took the form of a banquet and good fellowship was the order of the evening.

The motorcycle division of the association will hold a meeting next Friday evening when they will choose the three directors who will look after the affairs of the division. The executive committee of the whole association has already been selected. The straight motorcycle dealers will be represented by J. P. Garner, the Henderson distributor for Chicago, while the mixed motorcycle and bicycle tradesmen will have Mr. Brown, the Emblem representative for Chicago. The bicycle traders also have a representative.



Seattle Motorcycle Headquarters of Ballou & Wright.

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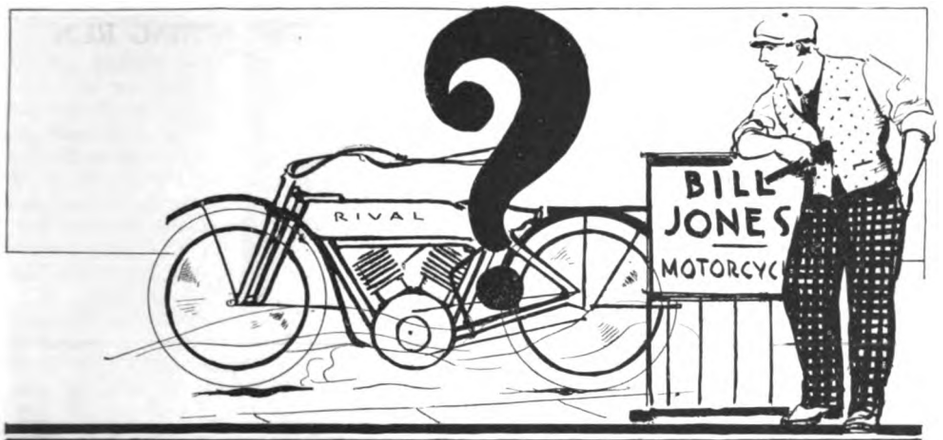

WHAT SHOULD JONES DO?

IF John Jones, a dealer, learns that Sam Smith is in the market for a motorcycle—through seeing him ride a demonstrating machine belonging to a competitor—is Jones justified in striving to interest Smith in the make of motorcycle he is handling, or should he leave the coast clear for the agent who first had dealings with the prospective buyer? In other words, does a prospect "belong" to the dealer who "discovers" him, or should any other agent in the city feel free to seek his patronage regardless of who started the ball rolling?

THESE queries were embodied in a letter received a few days ago from a successful motorcycle dealer in an Ohio city, and owing to the fact that they raise an interesting question which has often confronted agents they are printed with a view of having trade workers express their opinions. At first thought it would seem that the dealer who "discovers" a prospect should not be interfered with until the prospective rider makes it known that he would like to have another make of machine demonstrated for him, but an unbiased analysis of this policy will show that it is sometimes subject to qualifications. For example, the buyer who negotiates with only one dealer and examines only one make of machine may not have his requirements filled as satisfactorily as if he had been acquainted with the mechanical details of several other makes.

THE FIRST DEALER'S CLAIM.

On the other hand, the agent who first gives his time to interesting a person in the possibilities of the motorcycle may with some justification feel that he has "made the prospect," and that he should be entitled to a greater claim on the ultimate business than the other dealers who had no direct part in breaking ground for the sale. How far this claim should carry, and under what conditions other agents may feel warranted in making a bid for the sale are knotty questions permitting of widely varying viewpoints. Assuming that Jones is a well-meaning dealer who aims to be perfectly fair, but who wants to take advantage of every legitimate opportunity in his field, what should his policy be with reference to Sam Smith?

The Ohio dealer who submitted the questions asked for a reply by mail and a letter has been forwarded to him expressing the personal opinion of the Editor. This opinion, however, was based more upon the ethical aspect of the problem than upon knowledge of the many intricate trade conditions which would have a practical bearing on such a question. Accordingly, other letters will be welcomed and will be given space in these columns. Names need not be signed.

ONE AGENT'S OPINION.

One well-known dealer in the metropolitan district to whom the question was submitted replied in part as follows:

"If I saw one of my competitors demonstrating a motorcycle for the benefit of a prospective purchaser I would not feel that this dealer was entitled to a monopoly of the prospect, but I would confine my efforts in his direction to sending a circular letter, merely stating that I was prepared to demonstrate my machines should he care to inspect them at any time. I believe that every prospective rider is entitled to all the information he can obtain concerning all makes of machines; this policy leaves him in the field for open competition and the rest depends upon the buyer's individual requirements and the salesmanship of the various agents.

"It goes a bit hard with a dealer to 'dig up' a prospect and then have him carried off by another agent, but it strikes me that competition is too keen these days for any dealer to expect to keep a prospective buyer to himself. I believe the dealer who is first on the scene should have a fair chance to make his sale, but I argue that the buyer is entitled to know that there are other machines on the market and that the men who handle them are willing to meet him halfway should he care to have them demonstrated for him."

DENVER CLUB ACTIVE AGAIN

DURING the winter months the Denver (Col.) Motorcycle Club has been lying dormant, but with the opening of the riding season activity has been renewed, and the club has been practically reorganized. In order to insure success and to stimulate interest the local dealers have guaranteed a certain sum, should the dues not be sufficient to cover the running expenses.

Officers were elected at the first meeting as follows: H. L. Beck, president; J. Johnson, vice-president; A. Sharp, secretary, and A. McElhenny, treasurer. A board of directors composed of the dealers who are financially backing the club was appointed as follows: W. W. Whiting, Ed Meade, Harry Ott, O. Daenitz, Fred Williams and W. Crocker. Mr. McElhenney, newly elected treasurer, immediately got busy and collected $50 in dues.

A number of members of the club, piloted by Walter Whiting, recently made a trip to the mountain town of Idaho Springs. They encountered plenty of sand, but got back without mishap.

NEW CATALOG READY

AN unusually attractive catalog is that of the Chicago Cycle Supply Company, of Chicago. This catalog has been in course of preparation for months past and is now being distributed. The publishers report a big demand for it.

Headquarters of McGraw Bros., in Jacksonville, Fla., where Thor, Harley-Davidson and Black Hawk machines are sold.

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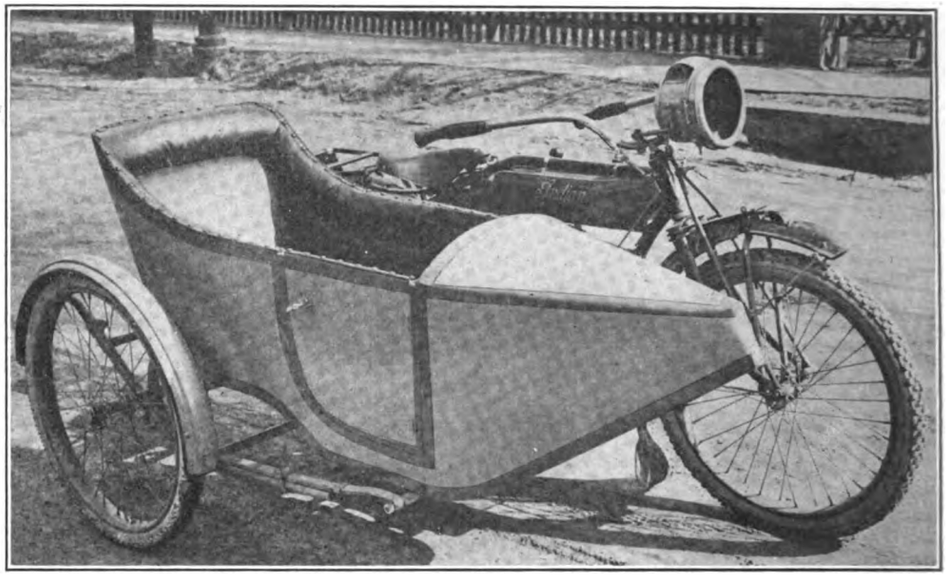
NEW BAXTER MODEL

FROM the headquarters of the Baxter Sidecar Company, Cambridge, Mass., comes the striking photograph shown herewith of a new sidecar model, a coach-built product which will be the headliner of the Baxter factory for the 1913 season. After much experimenting the designers have succeeded in embodying all their mechanical improvements without detracting from the appearance of the attachment, and they feel that they have turned out a worthy addition to the Baxter line. The body is made of automobile sheeting, laid on an oak frame, and special attention has been given to the upholstering. The seat has a well-upholstered spring cushion, and the back of the sidecar is 20 inches high from the top of the cushion, thus insuring maximum comfort. The total length of the body is 64 inches. The price, with either an underslung frame (as shown in the photograph), or with the Baxter spring wheel, is $90.



New Sidecar Model Being Produced by the Baxter Company.

F-N COMBINATION ATTACHMENT

REPORTS from the Fentress-Newton Mfg. Co., 429 Bagg street, Detroit, Mich., are to the effect that its combination spring carrying attachment is proving the most attractive seller in a long list of favorites. This attachment has a well-sprung carrying base, narrowed at the front to permit of comfortable use as a passenger seat and supplied with adjustable straight handlebars. The handlebars and special cushion may be quickly removed from the attachment, leaving it an admirable luggage carrier. Folding footrests are bolted to the upright braces so that they too may be removed when the attachment is not to be used for passenger service.

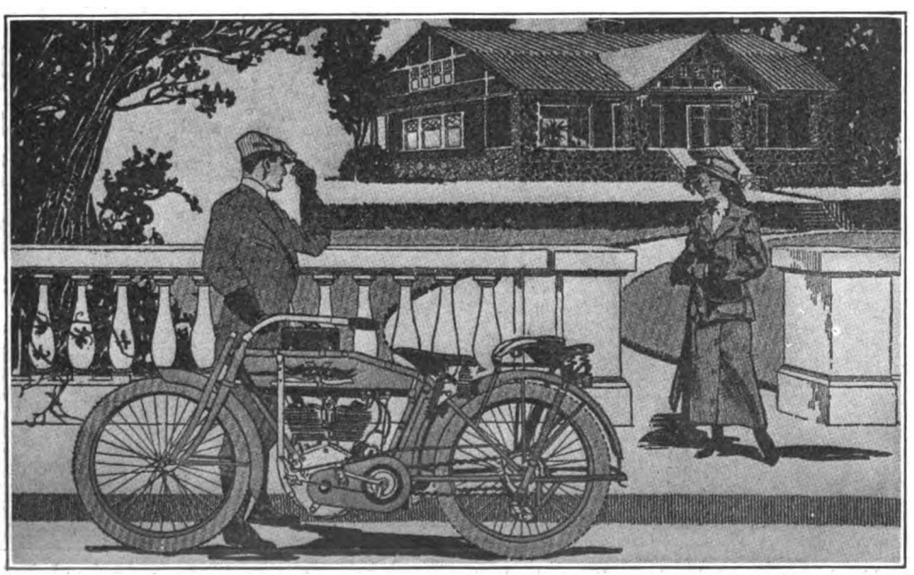
The Fentress-Newton firm also makes adjustable back-rests for motorcycle saddles, universal lamp brackets for motorcycle lamps and motorcycle extension nuts. The company's slogan is "One Good Thing After Another," and that this really means something is evident from the fact that orders are piling up at a record-breaking rate.

PITTSBURGH DEALERS

FROM Pittsburgh, Pa., comes the following lineup of motorcycle dealers and distributors for the 1913 season: Harley-Davidson, distributed by S. C. Hamilton, 131 Collins avenue; Indian, distributed in the county by the Motorcycle Exchange, Schmidt & Payne, proprietors, 5606 Penn avenue; Excelsior, J. A. Johnson, distributor, 639 Liberty avenue; Henderson and Excelsior, Harry D. Immel & Bro., 5645 Penn avenue; Emblem and Dayton, T. J. Everwine, 7000 Frankstown avenue; De Luxe, Kirkman & Boerstler, 10 Liberty avenue; Merkel, Thor and Yale, Harry L. Neff, 106 Federal street, North Side; Minneapolis and Michaelson, Earl Dean, Grant street; Jefferson, George Hepler, 7208 Bennett street.

UNIVERSAL BUSINESS SOLD

FROM Worcester, Mass., comes the statement that the business and stock of the Universal Mfg. Company, launched some time ago by W. E. Eccles, has been bought by C. A. Persons, of the Majestic Mfg. Company, and associates. The stock, machinery, fixtures and good will of the Universal company are included in the sale, and Mr. Eccles has agreed not to re-engage in this business within five years. The business will be divided between the Majestic Mfg. Company and the Standard Specialty Company, according to their special qualifications for handling the Universal material. All orders for Universal material will be filled promptly with goods of the high quality which has always been maintained by the Majestic and Standard firms.



Another Effective Cover Design, Featuring the 1913 Yale Catalog.

HEDSTROM STILL RESIGNING

AT a meeting of the directors of the Hendee Mfg. Company, held on March 25, the resignation of Oscar Hedstrom as vice-president of the company and as a director was accepted, and the well-known engineer has now entirely severed his connection with the firm except for holding some stock on which the company has an option. Mr. Hedstrom's retirement from the official positions supplements his resignation as mechanical engineer of the Hendee company which was announced about two weeks ago.

In a letter written a few days ago he states that it was his intention to include all his official positions in the original notice of resignation, and that not until after the first announcement was made did he discover that he was still occupying the offices of vice-president and director. As was recently stated, Mr. Hedstrom has laid no business plans for the future, and is entirely absorbed at present in arrangements for an extended recreation trip.

THOR SUB-AGENCY IN NEW YORK

ANNOUNCEMENT is made by the New York Motorcycle Company, of 318 West 48th street, New York City, distributors for the Thor, that a sub-agency has been placed with the Terminal Cycle & Sporting Goods Company, 42 Cortland street, New York, to cover that portion of the city south of Canal street.

BIG DEMAND FOR TWINS

A SIGN of the trend of the times was seen in the character of the forty-five machines which were on the floor of the show-room of the Motorcycle Sales & Supply Co., Chicago, local agents for the Excelsior, last week. Of the 45 models, only four were singles.

NEW YALE DISTRIBUTORS

H. M. BAIRD, formerly district sales manager for the Yale, and A. R. Horn, who has been in the motorcycle business for a number of years, have formed a new firm in Minneapolis, Minn., and will distribute the Yale machines in Minneapolis and vicinity. Their headquarters are at 725 Third avenue.

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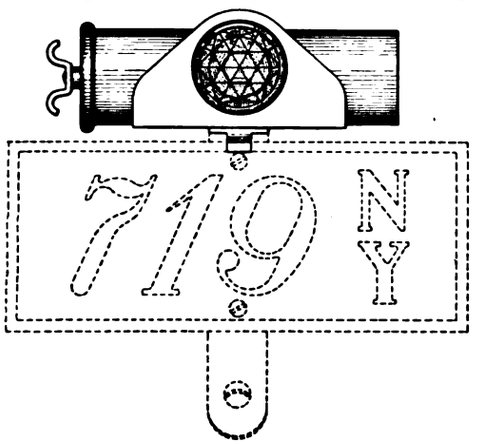
HAWTHORNE TAIL LAMP

IN the accompanying illustration is shown the improved electric tail lamp now being marketed by the Hawthorne Mfg. Company, of Bridgeport, Conn., and covered by a recently granted patent. The new lamp combines the qualities of compactness and lighting efficiency so admirably that it is already a top-notcher on the Hawthorne sales list. Despite the fact that the Bridgeport firm is two months behind in filling its orders for jobbers, it is working



systematically to keep abreast of the demands of individual riders for its products, and the new tail lamp is being produced in large quantities. The short tube attached to the lamp proper carries a battery, and it will be noted that the license plate is so disposed of that it meets legal requirements without being cumbersome or detracting from the pleasing effect of the lighting outfit.

WANT S. & M. FACTORY

AN effort is being made by the business men of Coshocton, Ohio, to bring the plant of the S. & M. Rubber Company to their town. The old plant of the Premium Stamp Company is looked upon as a likely location for the firm.

NEW FIRE EXTINGUISHER

TO meet the growing demand for a handy and efficient fire extinguisher which will give thoroughly satisfactory results in garage service, the H. M. Johns-Mansville Company, Madison avenue and Forty-first street, New York City, is placing on the market the "J-M Fyro," an apparatus especially adapted to fighting gasoline fires. The extinguisher is of the one-quart type, and is credited with being the first to use compressed air for the discharge of its extinguishing fluid. This fluid is a liquid gas, five times as heavy as air, and because of its weight it quickly envelops flames, displaces oxygen and puts out the fire. When thrown on the fire the liquid volatilizes and forms a dense combustion-arresting gas blanket. It is stated that one quart of J-M Fyro fluid will expand to 4,000 cubic feet of fire-annihilating gas, as compared with about 1,000 cubic feet of gas provided by an ordinary one-quart extinguisher. A noteworthy feature is that the new fluid will not injure fabrics or other materials with which it may come in contact.

KOKOMO PLANT IN FULL SWING

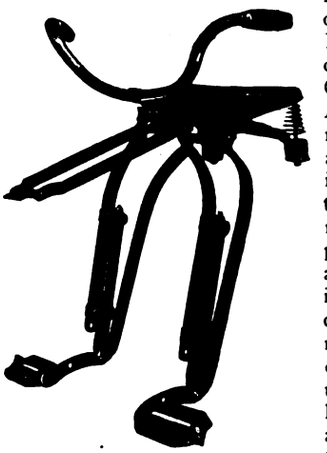
ANNOUNCEMENT is made by the Kokomo Rubber Company, of Kokomo, Ind., that work at its plant has not been interfered with in spite of the flood conditions. The only inconvenience experienced was lack of shipping facilities, which are now normal again. A number of other factories in the city were forced to shut down for a few days. For two days the city was shut off from railroad communication, and telegraph, telephone and mail service was crippled for the same period.

DeLUXE AGENTS BUSY

PUTZMAN & HOFFMAN, agents for the DeLuxe in Sacramento, Cal., report a rapidly growing demand for that machine in and about the Californian capital. Since taking the agency three months ago they have sold 30 machines and have many more prospects.

EMPIRE SPRING TANDEM

STURDINESS and easy riding are the qualities that make a strong appeal to motorcyclists in the improved spring tandem attachment that

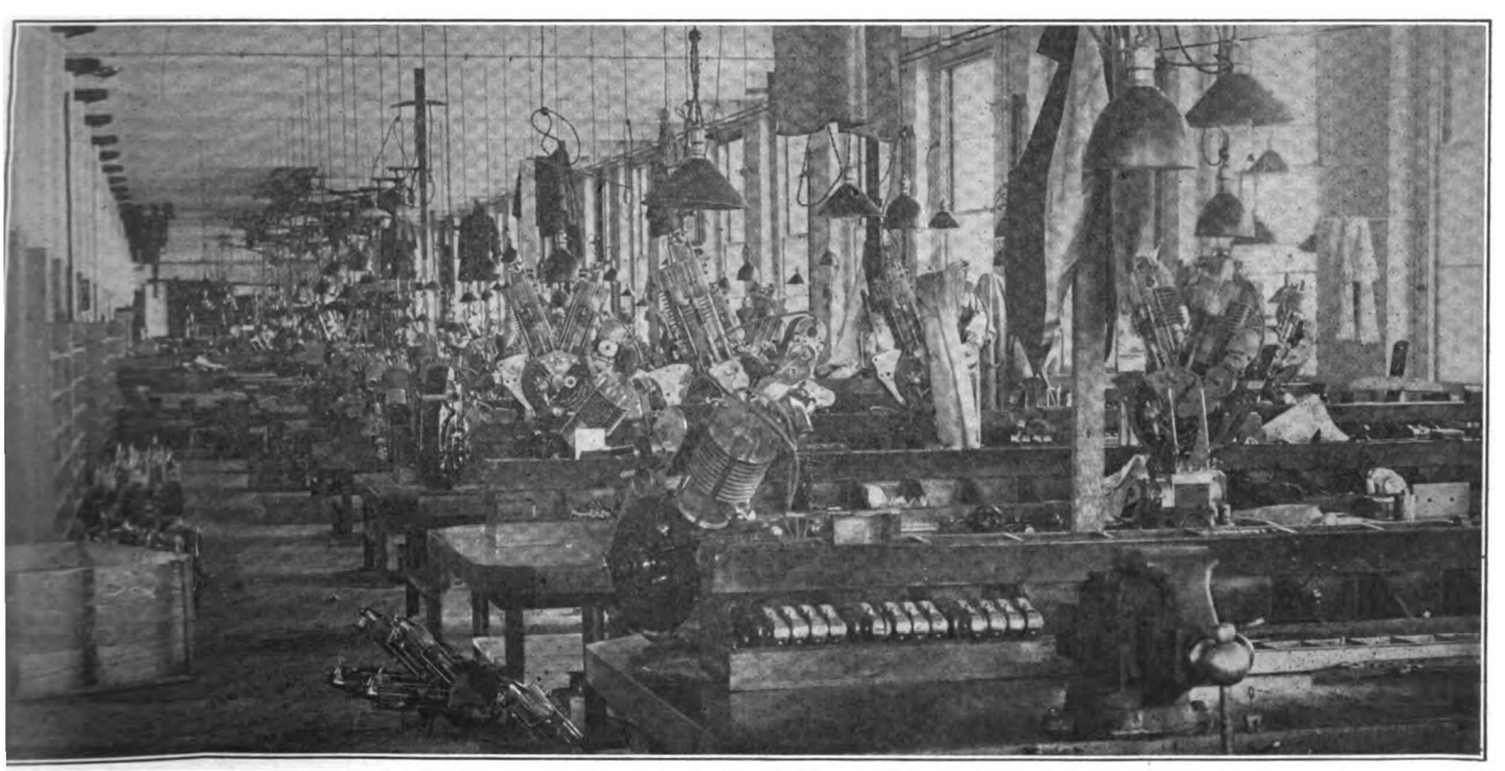


is being produced by the Empire Specialty Co., of Cleveland, O. As will be noted in the accompanying illustration, the attachment has pleasing lines and a springing system calculated to meet all the demands made upon it. The handlebars and pedals float with the saddle, thus insuring the utmost comfort in any kind of going. The saddle position is credited with being the lowest on the market for a tandem attachment, and the range of spring movement is greater than is usually found. The attachment is fitted with Kelly handlebars, Troxel saddle and rubber pedals.

The Empire company also manufactures an extensive line of high-grade detachable bicycle mudguards and is contemplating the addition of motorcycle guards of the same high quality to this line.

MERSHON PROMOTED

C. R. MERSHON, who has been traveling over the entire country in the capacity of service man for the Miami Cycle & Mfg. Co., of Middletown, Ohio, had been promoted to the position of final inspector and chief of the inspection department. Twenty-five road testers are under his supervision.



An Impressive View of the Assembling Department at the Plant of the Hendee Mfg. Company.

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INDIANAPOLIS SHOW OPEN AGAIN

INDIANAPOLIS, IND., April 1.—The automobile and motorcycle show at the Fair Grounds Coliseum, reopened Sunday for the benefit of the flood relief fund. It had been closed all week on account of the flood, but will be in progress during the entire week ending April 5. The G. H. Westing Company is displaying a line of Indians and Indian sidecars; Gus Habich is showing a number of Excelsior models and the Rodger sidecar. DeLuxe and Yale machines are attractively arranged at the booth of the Merz Motor Company, while Harry Dipple is showing the Harley-Davidson. The Thompson Supply Company also has a booth in the motorcycle section and is displaying the Emblem. The motorcycle exhibits are well arranged in the balcony of the Coliseum.

W. J. Teubner, the Indian booster, saved many lives during the flood in the western part of the city last week. Teubner did heroic work with a motor boat donated by Westing. Westing also let the city have a carload of new canoes for rescue work. Mayor Shank of Indianapolis yesterday appealed to the Indianapolis M. C. to send ten riders at once to Dayton to aid in patrolling the city. President McClain and ten members of the club left immediately for that city. They shipped their machines part of the way and will work in Dayton as long as needed.

F. I. Willis, a director of the F. A. M., says that he will probably not be able to attend the directors' meeting in Chicago, on Friday, April 4, as his duties at the automobile show will not permit of his leaving.

ANOTHER FLOOR FOR NATHAN

AN unprecedented demand for its products has compelled the Nathan Novelty Mfg. Co., 84-90A Reade street, New York City, to embrace another floor in its already spacious factory, and the firm states that it is now prepared to keep abreast of orders. While the extension will not be devoted exclusively to any one product of the company, it is likely that a considerable part of it will be devoted to leggings. The latter are in greater demand than ever before and the company is finding it necessary to keep its legging department working at top speed in order to satisfy the market. All the other departments, however, will be given additional room because of the extension, and new machinery is being installed to facilitate the production and handling of the entire Nathan line.

TO DISPLAY MOTORCYCLES IN ITALY

THERE will be a large motorcycle section at the ninth annual automobile show to be held under the auspices of the Automobile Club of Turin, Italy. The show will be held between April 26 and May 11. Several European and British machines will be shown, while the Indian will be the sole American representative, it being exhibited by the Indian agent at Turin.

EXPRESSIONS OF SYMPATHY

THE many friends of Ralph D. Webster, of the Eclipse Machine Co., of Elmira, N. Y., will learn with profound regret of the death of Mrs. Webster. Mr. Webster is in receipt of many letters of condolence and he has the deepest sympathy of all who know him in his bereavement.

THE Stewart-Warner Speedometer Corporation of Chicago is planning to enlarge its works at Beloit, Wis., by the addition of a couple of wings.

Truck-Load of Motorcycle Equipment Company's 1913 Catalogs Leaving the Hammondsport Factory for Mailing.

WATERBURY MOTORCYCLE LOCK

MOTORCYCLE riders will welcome the announcement of the Waterbury Hardware Company, 414 Broadway, New York, that the firm is keeping abreast of orders for its Waterbury motorcycle lock. This lock consists of a long steel shackle which is designed to go through the spokes and around the forks of either the front or rear wheel of a motorcycle; the loose ends can be instantly snapped into a sturdy lock and the mount thus protected against theft or tampering. The lock lists at $1.

SWENSON'S LINE IN DEMAND

FROM Providence comes the announcement that the wigwam, of which B. A. Swenson is chief, is one of the busiest places in town. Already one hundred 1913 models have been turned out from the headquarters on Broad street and orders for many more are on hand. Swenson also reports a large number of sidecar sales. A short time ago he received a carload of Milford sidecars and now has only 15 left. Another live-wire motorcycle city in Rhode Island is Woonsocket and plans are now under way to form a motorcycle club there.

RAPID SALES

VINCENT BROTHERS, of Cleveland, county distributors for the Pope, report excellent sales of the twin machines. The demonstrator was recently received and on the following day 14 orders were taken. Since that time the company has been taking orders daily and the boys are kept busy demonstrating the quality of Pope machines.

OPEN INDIANAPOLIS BRANCH

IN order to keep abreast of its orders the Standard Roller Bearing Company, of Philadelphia, has found it necessary to divide the territory formerly covered by its Chicago branch and has opened a new office in Indianapolis. L. M. Watkins, Jr., is in charge of the new branch, which is located in Room 1,201, State Life Building.

RECORD OF A BUSY WEEK

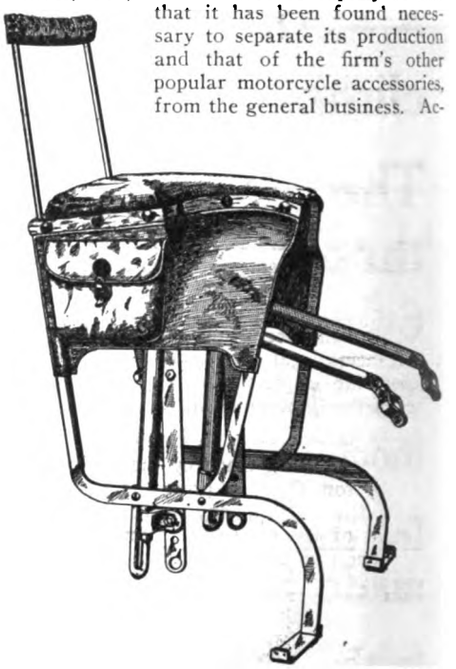
J. F. PTACEK & SON, agents for the Indian in St. Paul, Minn., report the following sales for one week: Frank Turek (two-speed), E. B. Holmberg, C. F. Smith, John J. Downs, American Home Co. (three), William Blosch, E. S. Randall, E. P. Boettcher, John Gorens, Marcel Cholquard, John Korlath, William Newmann, O. G. Tradewell and Peter Olson, of Terrill, Iowa.

READING STANDARD EXTENSION

FROM the busy plant of the Reading Standard Company, Reading, Pa., comes the announcement that its new addition, just acquired from the Remppis Iron Works, is now occupied and that more rapid progress than ever before is being made in handling orders for machines. The Remppis plant adjoins the Reading Standard factory and when it was added to the holdings of the latter it was possible to equip it and take possession without the slightest delay. The additional factory space affords the Reading Standard special facilities that have been needed for some time past, and the total floor area of the R-S plant is now about 150,000 square feet.

NEW COMPANY FORMED

THE demand for the Stoll Dream tandem, which has been manufactured in two models by the Queen City Iron and Wire Works, of Denver, Col., has increased so rapidly of late that it has been found necessary to separate its production and that of the firm's other popular motorcycle accessories, from the general business. Accordingly, the Stoll Manufacturing Company has been formed to take over the manufacture of the tandem attachments.



Stoll Dream Tandem.

The new company is already fully equipped with up-to-date machinery and is in a position to turn out the products most advantageously. It has been incorporated with Frank M. Stoll, originator of the Stoll Dream tandem, as president, and Albert F. Stoll as secretary and treasurer. A fine staff of mechanics is at work and the firm announces that it is fully prepared to uphold the excellent reputation that has been established by the tandem attachments.

NEW MERKEL AGENCIES

NEW agents for the Flying Merkel appointed during the past few weeks are as follows: B. B. Millison, Steubenville, Ohio; Standard Auto Co., Coshocton, Ohio; K. I. Konvalinka, Mason City, Iowa; W. E. Martin, Washington C. H., Ohio; A. Buckham, Edmonton, Alberta, Canada; Behrens & Bushnell, Ivoryton, Conn.; R. W. Snipes, Americus, Ga.; Heese Motor Co., Leavenworth, Kan.; Charles Sackett, Keene, N. H.; W. W. Cooper & Co., Ashland, Ohio; Miller & Co., Bradford, Ohio, and J. P. Wolf, York, Pa.

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One—Two—Three

HARLEY-DAVIDSON singles won first, second and third in the 3-½ mile Riverside, California, hill climb, March 1st.

The Winning Harley-Davidson defeated the other three makes entered by an *average* of 3 minutes, 6-⅔ seconds.

The Harley-Davidson "5-35" is the liveliest, the fastest, and the most powerful single that has ever been produced.

In the Springfield Hill Climb the Harley-Davidson "5-35" single made faster time than any *twin* of other make.

In the recent California Endurance contest the officials publicly acknowledged the superiority of the "5-35" by compelling it to compete with the twins, and on the same time schedule as the twins.

We are the largest producers of single-cylinder motorcycles in the world, and are building for 1913 almost as many "5-35" singles as we manufactured 4 horse power singles in the past two years combined.

Harley-Davidson Motor Company

Producers of High-Grade Motorcycles for Eleven Years

392 C Street **Milwaukee, Wisconsin**

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MOTORCYCLE MART

One time, three cents a word; twice, two cents a word each insertion. Agents' cards, five cents per word; two or more times, three cents per word each insertion. No advertisement for less than fifty cents.

FOR SALE OR EXCHANGE

FOR SALE.—Used Excelsiors, Harleys, Indians and others, all in running condition. From $50 upwards. Send for list. Powell Agency, Sodus, N. Y.

FOR SALE.—Lamp and generator, $3; Spartan V-belt, $2.50; Persons saddle, $2; front and rear wheel with belt rim, $5. L. Barrick, Brazil, Ind.

1913 8 H. M. M. TWIN, like new; run less than 200 miles; fully equipped with clutch, Presto tank, old sol No. 8, luggage carrier, pump and tools. Must sell. First check of $210 takes it. Clay Mitchell, Edgar, Neb.

WANTED—To exchange an Edison Standard Phonograph outfit, consisting of machine, all complete, and 200 records, entire outfit in perfect condition, valued at $125, for a good up-to-date twin or a 4-cylinder motorcycle—will pay the difference in cash. Edward Delnero, Candor, N. Y.

FOR SALE.—1912 Indian 7 h. p twin-cylinder motorcycle, complete with luggage carrier, in good condition. Enameled blue, the nickel plate and enamel is in perfect condition, the tires are in excellent condition, neither tire has been punctured. The machine has always had the best of care and has been ridden by a careful rider; has always had plenty of oil, etc. Owner will sacrifice above complete with tools for $170 cash. Must have the money. The machine will be shipped carefully crated. Henry T. Noll, Pleasant Gap, Pa.

DO NOT OVERLOOK to get our bargain list. Speedometers, $6.50 up; Prest-O-Lite, $8; side cars, $35 up; pennant holders, 20c., postpaid; tandems with seat, $5. Many other bargains. Investigate. Motorcycle Exchange, Schenectady, N. Y.

FOUR-CYLINDER HENDERSON must be sold quick; perfect condition; used as demonstrator. Will ship C. O. D. $190. First deposit of $50 takes it. Address "C. K.," care of MOTORCYCLE ILLUSTRATED, 51 Chambers st., New York City.

WANTED.—Brown and Barlow carbureter, with Bowden Control. Box J. M., MOTORCYCLE ILLUSTRATED.

FOR SALE.—4 h. p. M. M. in fine condition, with brand new tires, belt and cylinder, $75. Photo and description on request. D. W. Black. 534 Cherry street, Marion, O.

1912 PIERCE MOTORCYCLE 5 h. p., Eclipse clutch, not run over 500 miles, bought in September, cost $265; will sell for $125; guaranteed in perfect condition. F. C. Merritt, 2554 Bedford Ave., Brooklyn, N. Y.

FOR SALE.—Four-cylinder Ford automobile, good running order, top, good tires; price $150. Walter Robb, Canal Dover, Ohio.

SOL. LAZARUS 216 East 59th Street
(The man with the goods) (at Queensboro Bridge)

FOR SALE.—Five-inch motorcycle lamp and generator complete, new, by mail, for $6.50 or 28 x 2½ casing. R. C. Nethery, Segovia, Texas.

1912 YALE 7 h. p twin. Run 1,000 miles. Studs not worn from tires; like new. Runs like new. Bargain for $180. Will ship c. o. d. for $20 deposit. Address Lock Box 28, German Valley, Ill.

MR. REPAIRMAN—You can straighten any steel bicycle or motorcycle rim and make them stronger than when new. Full instructions $1. Quick Repair Shop, Everett, Wash.

Agents for Excelsior, Indian, Pope, Thor, Flying-Merkel. 1913 models now ready for delivery. Iver-Johnson, Reading Standard bicycles SOLD on easy payments. F. A. M. Repair Shop. Tires, Supplies.

FOR SALE.—Excelsiors, Indians and Harley-Davidsons; all have magnetos, and in fine condition. Ford N. Roadster, $275. Send for list. P. Callender, 213 Sand st., Peoria, Ill.

FOR SALE.—Jones 80-mile Speedometer with maximum hand to fit Indian; used 1,350 miles; price, $10. Percy Morgan, 7 Elizabeth street, Newport, R. I.

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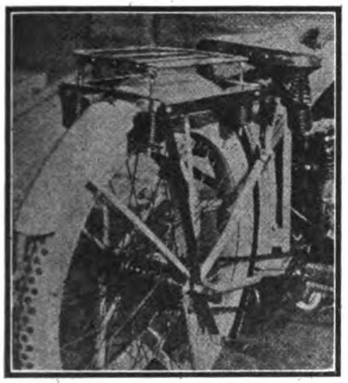

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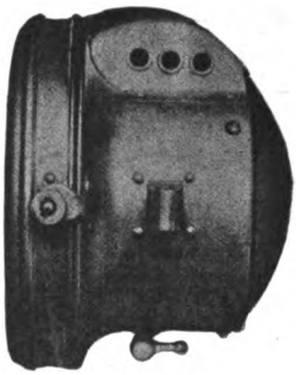

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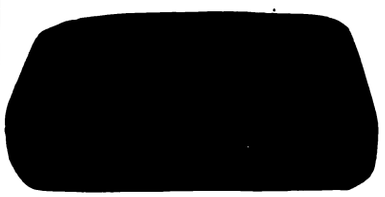

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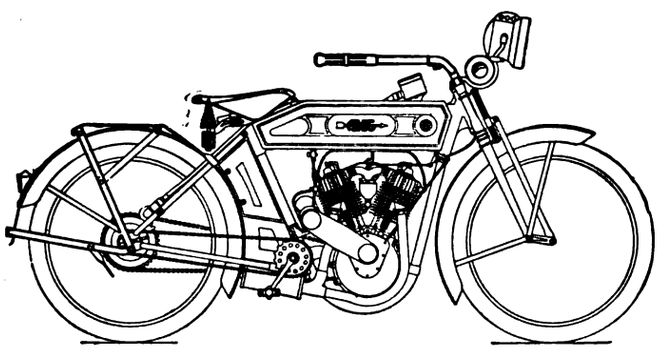

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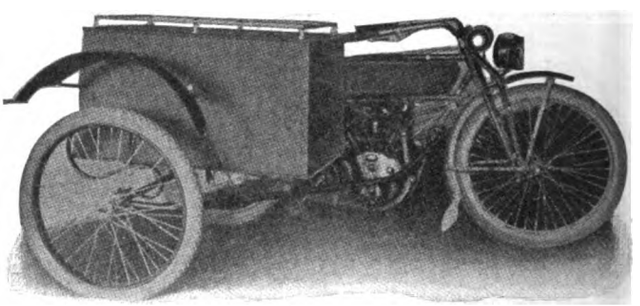

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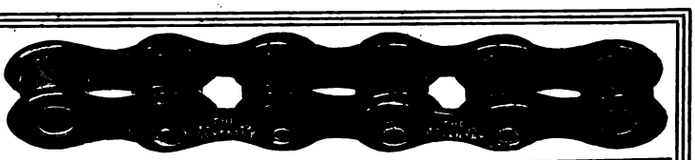

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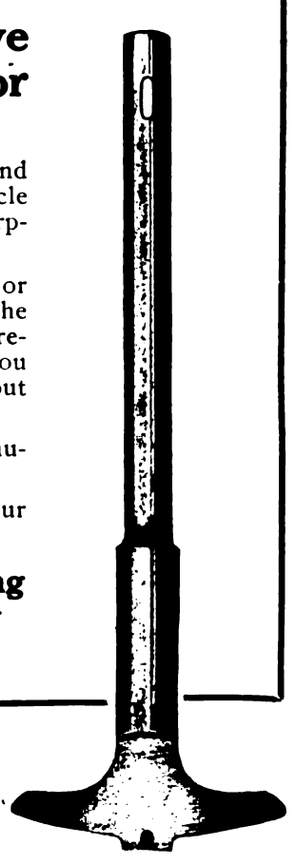

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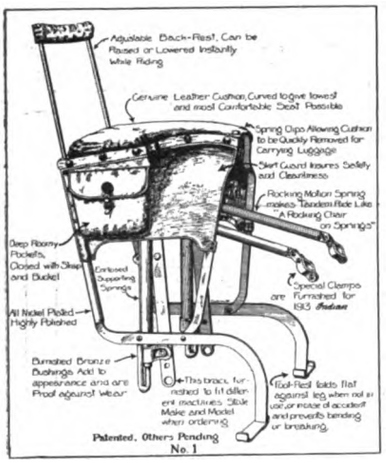

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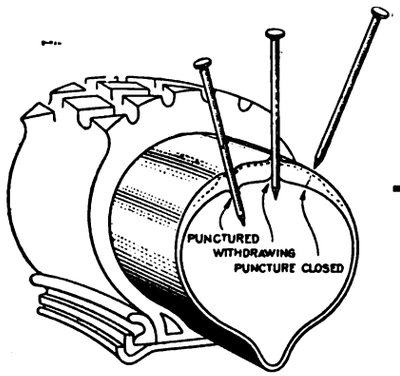

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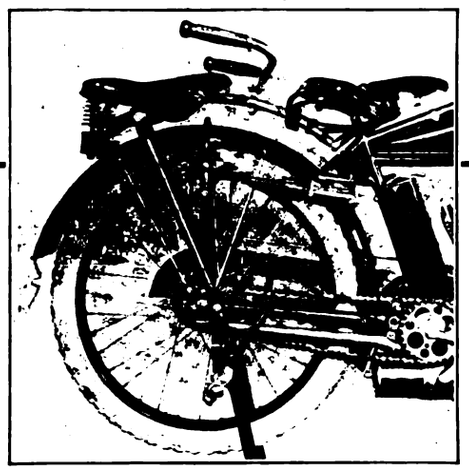

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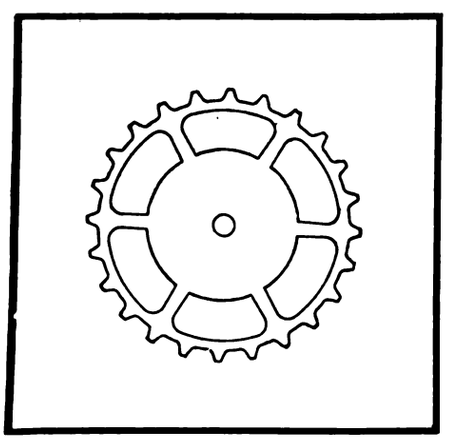

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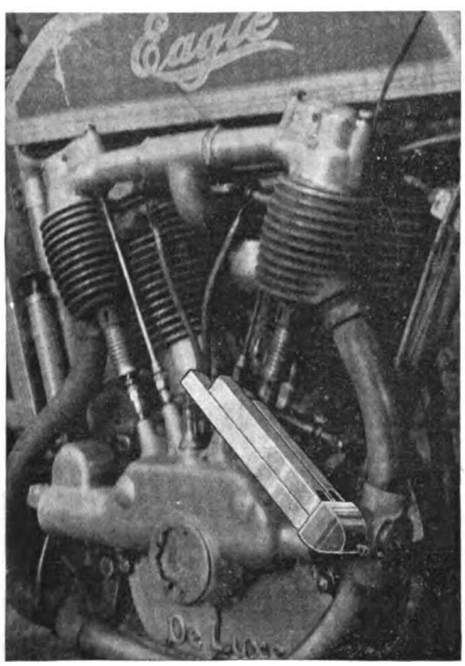

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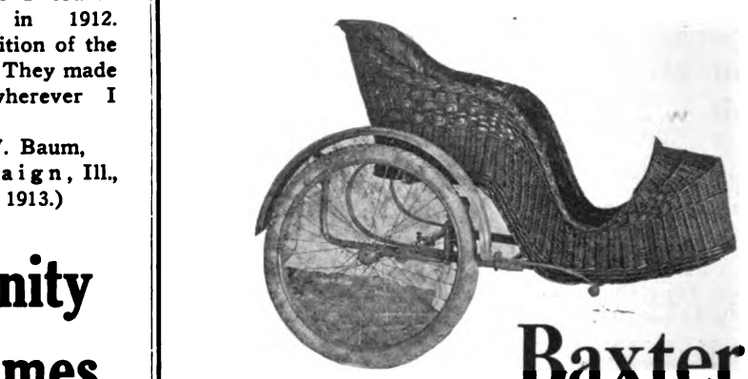

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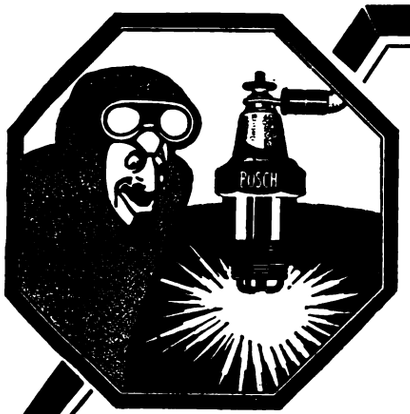

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We make a complete line of motorcycle garments, leggins, motorcyclists' caps, puttees and ladies' motorcycle garments. The Loewenberg line of specialties will make business for you.

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That is the involuntary exclamation which is aroused by the far-reaching, rich, mellow, perfectly blended tones of

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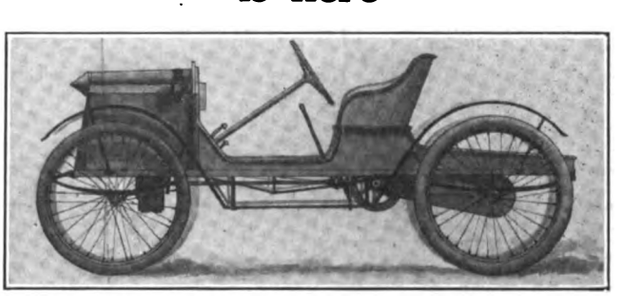
AT LAST the American Cyclecar is here



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Two models, 5-6 H. P. and 10-12 H. P.; Friction Drive. Not an experimental feature on it. Weight less than 300 lbs. Wheelbase, 72 inches. Speed, 5-6 H. P., 30 miles per hour; 10-12 H. P., 50 miles per hour. Price, $325 to $450, according to horsepower and body design. Cost of upkeep same as a motorcycle.

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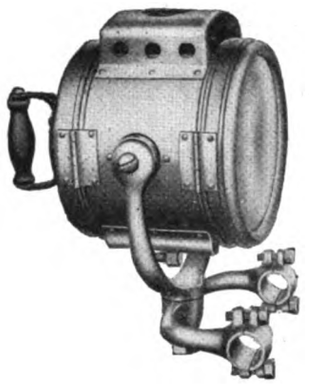

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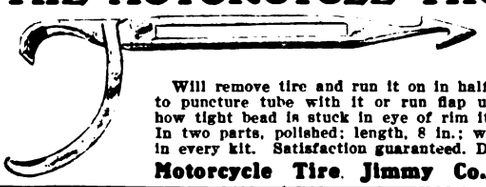

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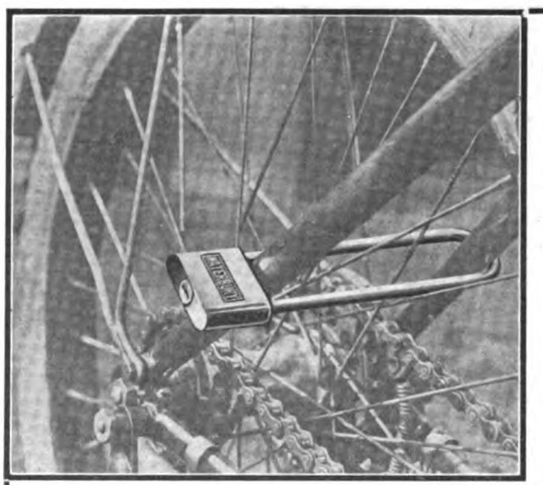

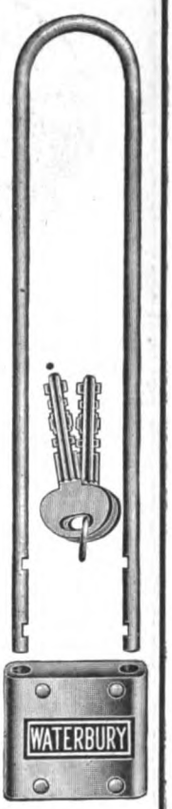

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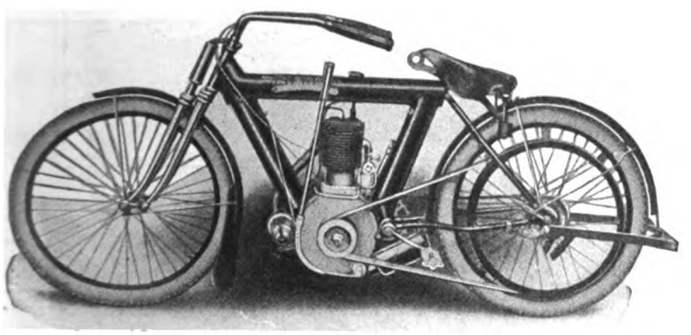

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and one mile in 36 seconds flat! On January 7th Lee Humiston made the record, using

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the new porcelain type introduced by the Jeffery-Dewitt Company. Read the following:

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"It gives me pleasure to confirm my telegram to the effect that I used your J-D Motorcycle Spark Plugs on my recent record trial in Los Angeles, on January 7th, at which time I broke the records up to and including one hundred miles, at the Playa Del Rey Motordome, using your porcelain plugs. These plugs gave me absolutely no trouble and my engine never missed an explosion during the entire one hundred miles.

"I was somewhat skeptical about using a porcelain plug, but after making several tests I decided to try them and they 'made good.' I shall use them on my future trials. Yours very truly,

"(Signed) LEE I. HUMISTON.

"Witness:
"(Signed) E. L. MORSE.

"Subscribed and sworn to before me by the said Lee I. Humiston this 27th day of February, 1913.
"(Signed) J. F. KEEGAN,
"Notary Public."

Get a set of these great plugs from your dealer—or sent prepaid on receipt of price. *Metric size only.*

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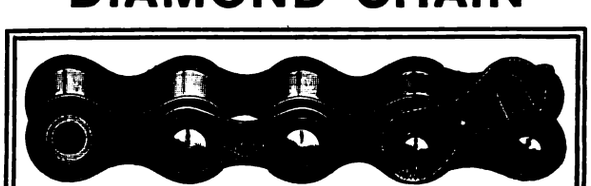

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The transmission of your motorcycle is one of its most important parts—be sure you have the best.

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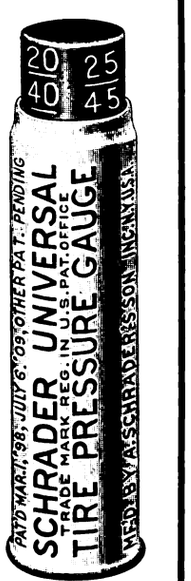

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Nearly right isn't enough, the pressure must be EXACTLY right.

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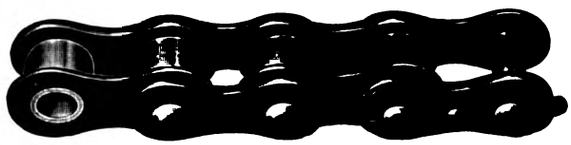
should be equipped with chains that will stand up under all conditions. You can depend upon the "Whitney" Chain whether in rain, mud, sleet or snow; they are always on the job. They give the maximum amount of service because they are made by men with years of experience in chain making.



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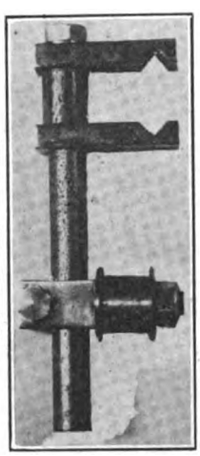

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Almost indispensable to all riders of chain-driven motorcycles of the countershaft type.

Built entirely of Cold Rolled Steel highly nickeled. Easily attached (instantly), adjustable, strong and durable.

Made to fit all chain-drive motorcycles.

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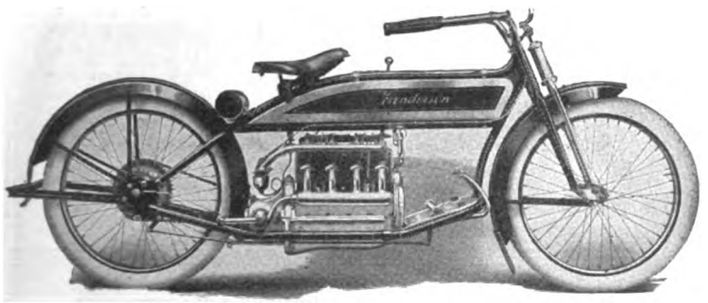

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8 H.P., 4 cylinders; free engine; chain drive

Rider and dealer alike, if you want the 1913 Henderson, should not delay.

And there's no doubt you'll want it after you've investigated—the one for its power and silence and comfort; and the other because of its great sales possibilities.

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If it fails to make good, you get another plug. This is the only plug sold with such a definite guarantee. It is also the only plug made with a ***double insulation***—a sheet of mica wound around the electrode, and a porcelain shell over the mica. If either of these insulations should be broken the other is sufficient to insure perfect sparking without short-circuit even when current is supplied by a magneto.

All sizes of J-M Plugs can be used for either battery or magneto ignition. Sold by most dealers or shipped prepaid from our nearest Branch. Price $1.00 each.

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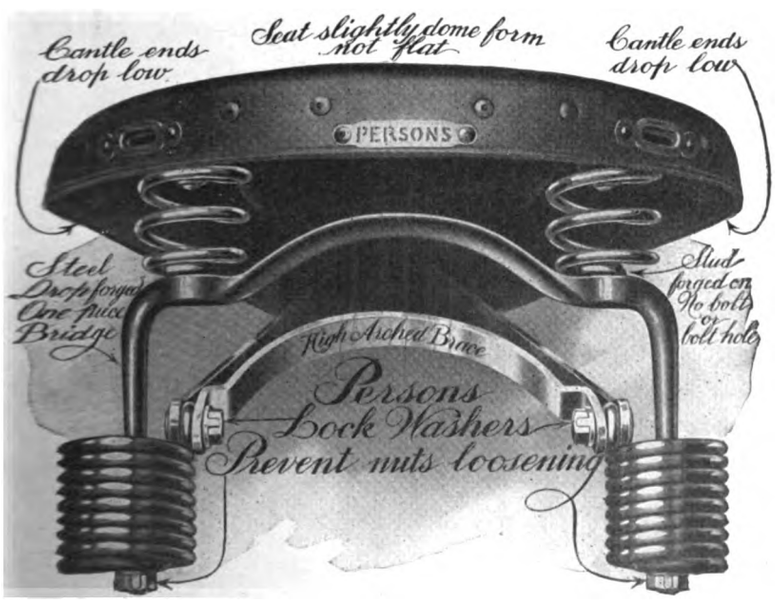

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MOTORCYCLE OIL LAMP

(Patented)

SHOWING A RED REAR LIGHT

THE ONLY RELIABLE MOTORCYCLE OIL LAMP

LAMP WEIGHS ONLY 12½ OUNCES.

The Neverout complies with the laws of the various States and Municipalities.

The Neverout burns kerosene ten hours with one filling, and will stay lighted under any and all conditions. All riveted—will not rattle or jar apart over roughest roads.

Made in gun metal, brass or nickel finish. Double clamp bracket furnished; fastens lamp securely to fork of motorcycle. No danger of shaking off, and *shows red rear danger signal.* Sold by leading jobbers and dealers everywhere.

Guaranteed to stay lighted or money refunded

The Neverout is equipped with a *Patent Glass Covered Reflector of German Silver,* instantly removable; never loses its original brilliancy.

FOR SALE BY LEADING DEALERS.

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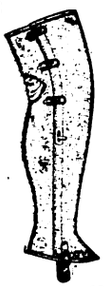
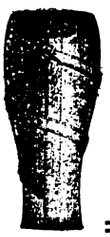
That's the kind every Dealer wants and needs to sell. That's the kind he needn't apologize for. And those are the ones that sell and stay sold.





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Their Shape Will Keep Indefinitely.

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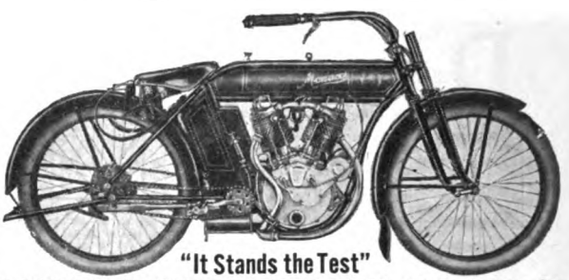

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IVES MOTORCYCLE CORPORATION, 200 John Street

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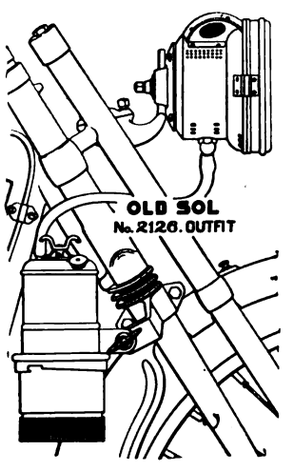


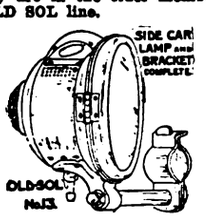
Price $4.00

Model No. 2126

Here is a lamp which bids fair to become tremendously popular. It is small, light, compact, remarkably durable and throws a light of about 400 candlepower strength. For Harley-Davidson order No. 2126 with H. D. Bracket, Price $5.00. For Indian, R-S, Merkel, Henderson, Schickel, the lamp fits spade bracket supplied on above motorcycles. Burns six hours on one charge carbide.

OLD SOL MOTORCYCLE LAMPS

The tremendous demand for a medium sized, low priced lamp has caused us to put out the new Models of the Old Sol Line described here. Needless to say, the famous quality features of OLD SOL construction are as predominant in these new models as they are in the older members of the OLD SOL line.

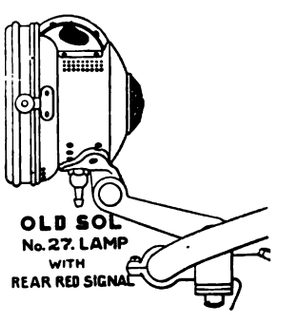


Old Sol No. 13

Here is a distinctly 1918 lamp. The growing popularity of the sidecar in America has caused a demand for a neat, compact sidecar lamp, which No. 13 meets. Projects a light of about 400 candlepower, consuming 1-6th cubic foot of gas. Supplied with red rear jewel and bracket to fasten to tubing of sidecar. Price $3.00.

Old Sol No. 27

Here is another model that is certain to create interest among riders. It has all the light throwing, durable, compact features of Old Sol No. 2126 with the added feature of a red rear jewel, thus eliminating the necessity of a rear lamp. The license laws in practically all states in the Union will thus be complied with without the extra cost of providing a rear red signal. A handsome, efficient little lamp with a sufficiency of light penetration.



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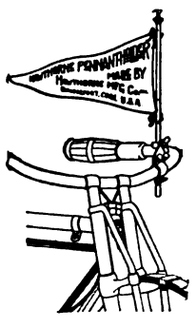


Old Sol Pennant Holder

The growing pride of motorcycle riders in their equipment has led thousands of them to complete the smartness of their turnout with an OLD SOL pennant holder. It is a handsome rod of brass, nickel-plated, and securely clamps to the handlebar, in no way interfering with rider's freedom of hand movement or his view ahead. Price $1.00.

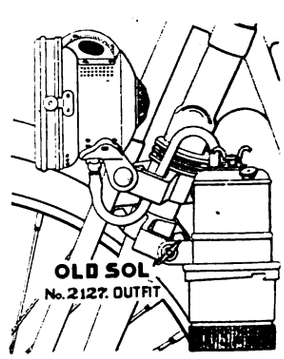
The dealer who desires more information about the most firmly established and best known lamp line on the market should write NOW.

Hawthorne Mfg. Co.

37 Spruce St., Bridgeport, Conn.

Model No. 2127

Supplied with "W" bracket. Fits any motorcycle. Easily attached to any front fork. Equipped with red rear jewel. 400 candlepower. Burns six to seven hours on one charge carbide.



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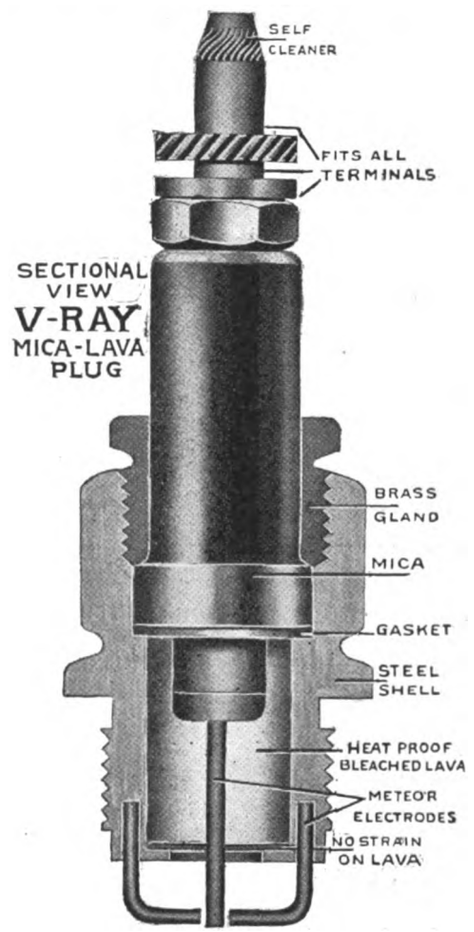

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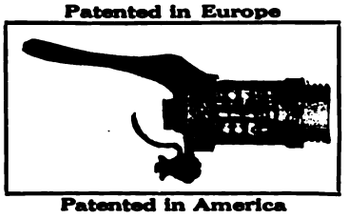
THIS IS WHAT THEY ALL SAY ABOUT THE M&M ECONOMIZER

We will have another motorist's letter next month

Patented in Europe



Patented in America

Los Animas, Colo.
Moller Bros., Phila., Penna.

Gentlemen: In reference to the M&M Economizer which I purchased from you sometime ago, will say that I would not be without it. I have installed it on a SEARS SINGLE. I have run seventy miles since I got it, on two quarts of gasoline, where formerly it would take a gallon to cover the same roads. It increases the speed and power every bit of 20%, and the carbon deposit is hardly noticeable.

Two more Economizers have been ordered in this vicinity since I got mine, and many more will be ordered when the motorists find what a saving can be made in gasoline with the increased efficiency of their motors, by using the M&M Economizer. (Signed) GILBERT MARTEUSON, March 14th, 1913.

THE M&M ECONOMIZER WILL POSITIVELY SAVE FROM 40 to 50% of gasoline. ELIMINATES all carbon, *and acts as an air-brake.* With the throttle set at twelve miles per hour, by opening the M&M, the mileage will be increased to EIGHTEEN OR TWENTY MILES with the SAME AMOUNT OF GASOLENE and LESS CARBON.

The M&M is nickel plated and highly polished. Requires a ¼" pipe tap to insert into manifold. Can also be reduced to ⅛". Can be applied to any motorcycle on the market with PERFECT SATISFACTION. It is very easy to apply to your motorcycle, and will not injure it in any possible way. THE LONGER YOU HESITATE TO PURCHASE, the MORE GASOLENE YOU ARE USING, and we assure you that there is not one individual that has applied the M&M but will tell you that IT IS WORTH MANY TIMES ITS COST, and HE WOULD NOT BE WITHOUT IT ON HIS MOTORCYCLE. The M&M is becoming THE RAGE in motorcyclists' Realm.

Price of the Motorcycle Attachment, $1.25 Prepaid.

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Price complete with Mesinger Superba Saddle $15
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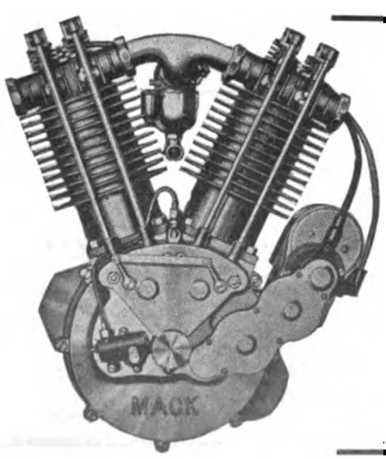

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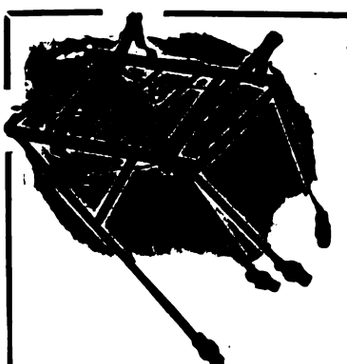

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The Star is handled by the leading jobbers [illegible]. Write us.

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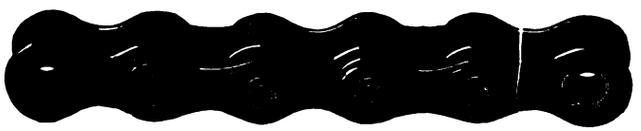

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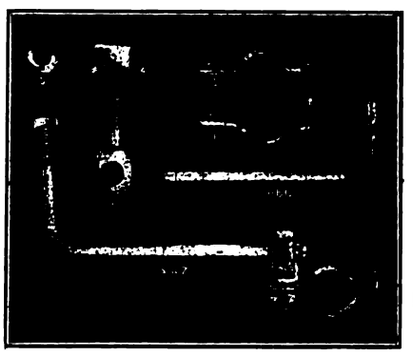

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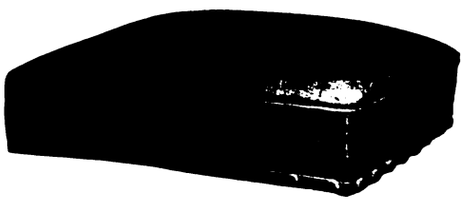

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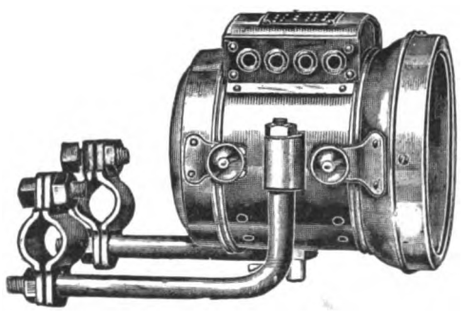

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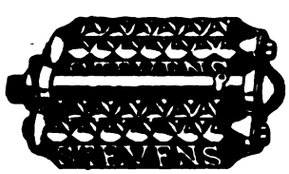

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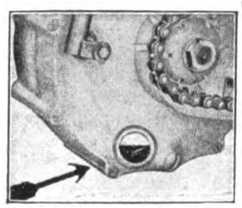

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For $1.50 If your oil stops flowing for 15 minutes your engine may be ruined. Fit a Simplex Gauge, SEE the oil level in your engine and be SURE. 8 out of 10 engines are ruined for want of oil. Fits Harley, Excelsior, Jefferson, Flanders, Etc. Attached in 10 minutes. Ask your dealer or write. Catalog Free.
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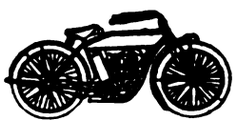

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You will find in our large, high grade assortment of slightly used motorcycles, probably *just the Motorcycle you want* at *just the price you want to pay.*
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Works Perfectly When Throttled Down to 230 Revolutions Per Minute.

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All air ports have been enlarged.

A perfect mechanical device to increase gasoline supply automatically with the opening of the throttle has been fitted.

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No Screws to Cut Belt

Made in all standard widths. Price, 50c. a roll.

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Motorcycle Supply Magazine

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Our goods are standard, our prices honest and what we sell is guaranteed to give you satisfaction. Write a postal now.

ASK FOR THE "YELLOW SHEET."

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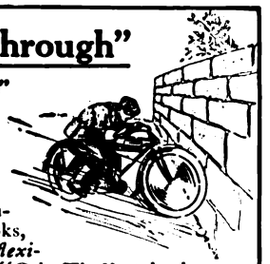
You Can't "Go Through"

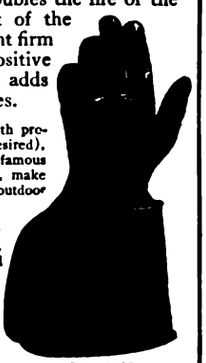


a pair of Grinnell **"Grip-Tite"** Gloves with the same costly wear and tear that "go through" *ordinary* gloves. Grinnell Gloves have *always* been popular with motorcyclists, for their unusual, smooth-fitting comfort, distinctive looks, long wear and finger freedom *flexibility*—but *now* we have the "Grip-Tite" styles in

Grinnell Gloves

Sold with a Bond

which give you more comfort and service. The double corrugated palm and inner thumb doubles the life of the glove and eases the physical effort of the grip on handle bars, maintains constant firm control with slightest effort. A positive surprise and a welcome relief—it adds greatly to your motoring pleasures.

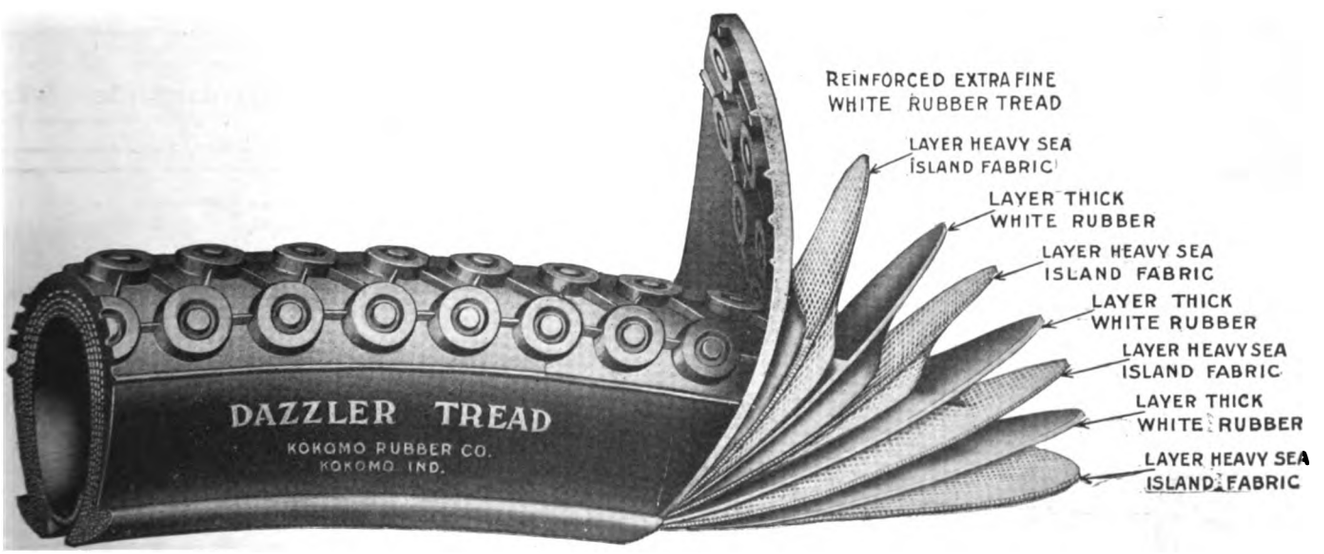


This new exclusive Grinnell device, together with protection of the distinctive "stay-put" gauntlet (if desired), the ingenious, hand cooling *ventilation*, and the famous **Grinnell "Rist-Fit"** comfort and convenience, make **Grinnell Gloves** the *best* investment, in outdoor service gloves at *any* price.

Made in many styles for many uses. See these—also our street and dress gloves, at your dealer's. Write for free glove book, leather samples and our "*Pair on Approval, prepaid*" offer

Morrison-Ricker Mfg. Co.
Established 1856
27 Broad Street, Grinnell, Iowa

Style 4827



The Dazzler—A Real Non-Skid Tread

Dazzling indeed in its aggregation of service insuring features is this new arrival in the Kokomo group.

Note the distinctive studs. Your eyes give you the most convincing testimony as to their efficiency as skid and side-slip preventatives. Your common sense tells you that it would be impossible to find a more effective tread. And give your close attention to the seven alternating layers of thick white rubber and heavy Sea Island cotton. Can you find anywhere a more efficient, business-like tire? (Chorus) NO!

Send for our catalog. It tells the whole story.

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Look Beneath the Surface

Why does a belt-drive machine at second-hand bring a higher price than a chain machine of the same make and given the same amount of wear?

One wise dealer says:

"A second-hand belt-drive motorcycle will bring a better price, as a rule, than a second-hand chain-drive machine ridden the same length of time and under similar conditions, because it is in a much better state of repair. It is hardly necessary to take the machine apart to be certain of this fact, but to prove my point 'Look beneath the surface'—investigate the difference in the wear of the two power plants and it will readily be seen how much more the motor mechanism of a chain-drive machine is worn than that of a belt-drive machine."

The flexible Belt transmission greatly reduces the wear and tear of your machine—its power plant; in fact is materially easier on all parts of your motorcycle than any other transmission.

A belt-driven machine, and that Spartan equipped, is all the assurance you need for the greatest possible degree of efficiency, economy and comfort.

Have you read the practical treatise on motorcycle transmission in our 1913 Spartan Catalog? If not, send for the catalog at once.

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The Economical-Comfortable Efficient-Transmission

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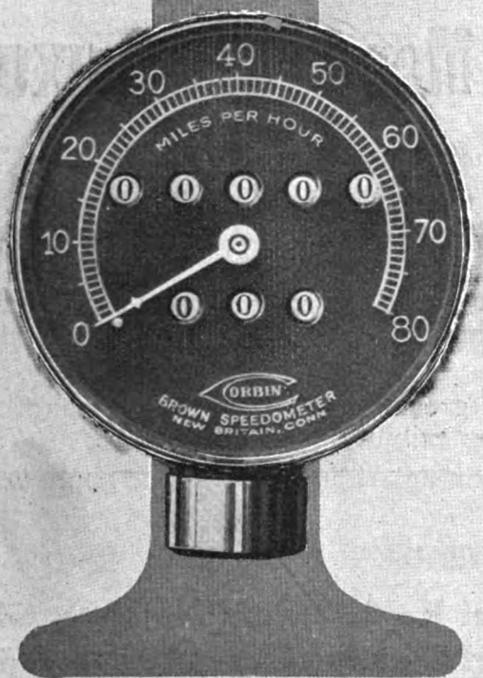
You are apt to pay much more than $15.00 in fines within a year unless you *always* know—and *positively*—the rate of speed at which you are traveling. The

CORBIN-BROWN SPEEDOMETER

For MOTORCYCLES

"The Speedometer of Absolute Accuracy"

will *always* keep you accurately informed as to your speed. Its presence on your machine will mean that you will never unknowingly exceed the speed limit.



The Corbin-Brown is built on the centrifugal principle of physics.

Science has proved that the accuracy of a mechanism so constructed cannot be affected by temperature changes.

Compound governors constitute practically the entire mechanism of the Corbin-Brown.

It is the acme of simplicity.

No delicate parts to become broken or out of order by the jarring of your machine.

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Send me your leaflet which describes in detail the Corbin-Brown Motorcycle Speedometer.

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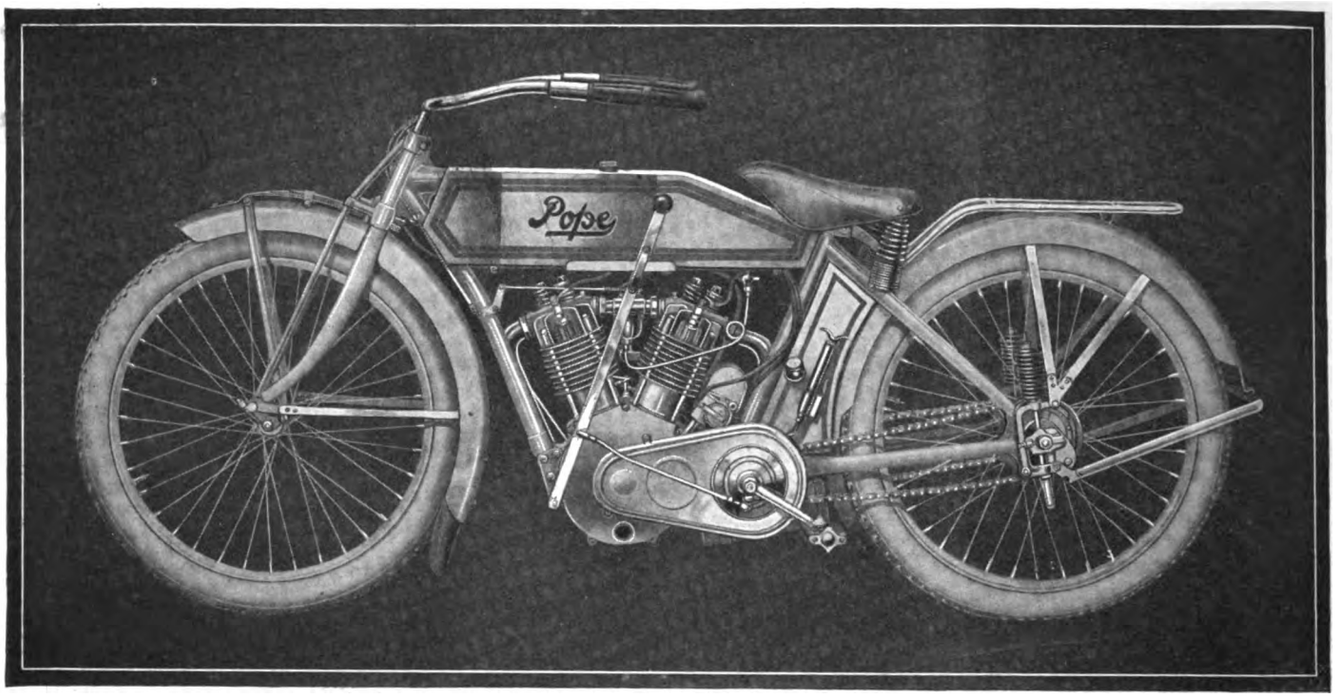

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Comfort and Power. Isn't that what the up-to-date motorcyclist wants most?

The Pope "Twin" is comfortable at all speeds and has tremendous power. The faster you go the more you appreciate its riding qualities. It is a perfectly balanced machine. One rides without appreciable effort, so easily does it control and so beautifully does it balance.

With the POPE REAR SPRING SUSPENSION, riding comfort is inevitable. As a result of this and other exclusive comfort features, the Pope "Twin" has the easiest riding qualities yet obtained in a two-wheeler.

OVERHEAD VALVES—the big secret of the Pope's great power, speed and strength on the hills—produce a wonderfully smooth-running engine of great flexibility.

What other motorcycle provides such luxury in the running, riding, operation, appearance, and lasting qualities as the Pope "Twin"?

Send for catalog of complete Pope Line and Dealer's Proposition.

Model L, "Twin" 7-8 H. P., $250 **Model K, 4 H. P. (Belt Drive), $200**
Model M, 5 H. P. (Chain Drive), $215 **Model H, Lightweight - - $165**

POPE BICYCLES—Columbia, Rambler, Cleveland, Tribune, Fay Juvenile and other lines. For over 35 years we have been building bicycles of the highest quality. They are famous the world over. Send for catalog and dealers' prices.

THE POPE MANUFACTURING CO., Hartford, Conn.

Pacific Coast Motorcycle Distributors:

F. P. Keenan, Portland, Oregon
Northwest.

Kimball-Upson Co., Sacramento,
Northern California and Nevada.

C. L. Smith, Los Angeles,
Southern California.

A. L. Spindler, 1330 Michigan Ave., Chicago
Wholesale for Cook County.

Whipple, "The Motorcycle Man," 923 Jackson Boulevard
Retail for West Side.

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You can now get Diamond Automobile Safety Tread Tires on your Motorcycle or Bicycle

You, as a motorcycle rider, have exactly the same tire problems as the automobilist. Realizing this, we have built for you a tire, made of the same Vitalized Rubber, the same fabric, the same principle of construction, built in exactly the same manner as our automobile tire.

Diamond Motorcycle Tires

with Safety or Studded Tread and Perfect 3-Point Rim Contact

and, in addition, the *More Mileage Strip* on the tread—an exclusive Diamond feature. All these distinctive Diamond advantages cost you no more—Vitalized Rubber—pure, young, lusty rubber, toughened by a special process, that gives it the necessary flint-like, road-resisting quality—Perfect 3-Point Rim Contact that holds with a vise-like rim grip—the now famous Diamond Safety Tread that "won't slip, won't slide, won't skid, *it grips!*"

So this time buy Diamond Vitalized Rubber Motorcycle Tires—you can get them to fit your rims from

Diamond Dealers Everywhere

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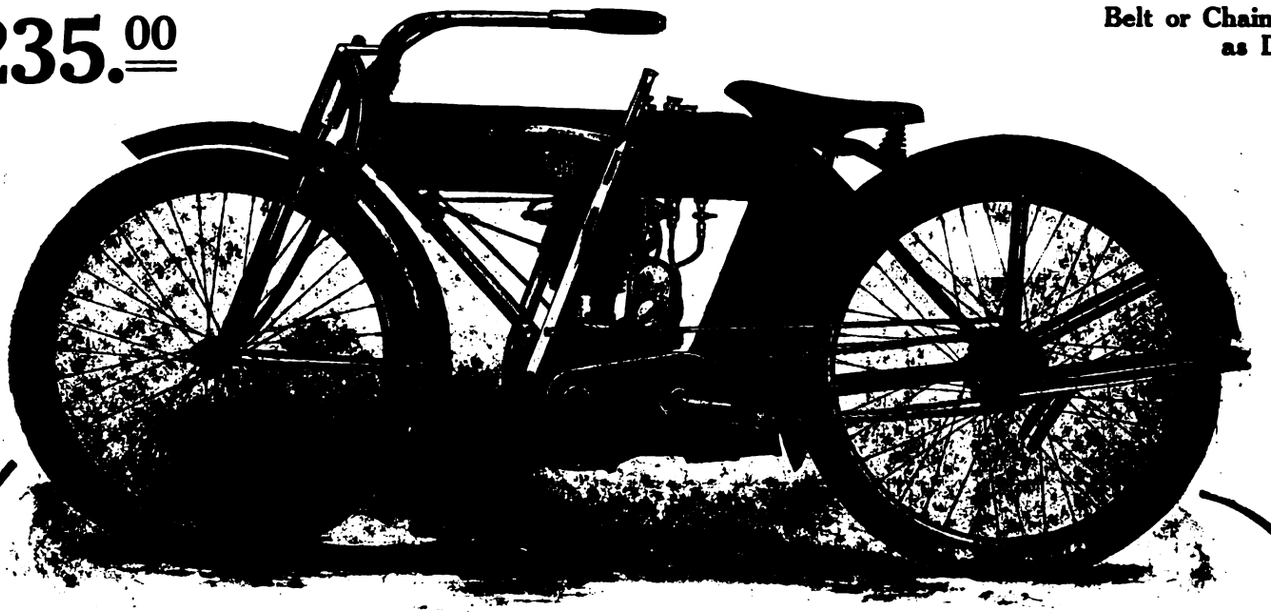
$235.00

Belt or Chain Drive as Desired



2 Good Reasons Why You Should Handle the "Black Hawk"

1st—Because the "Black Hawk" is a **better looking, better acting** motorcycle than any other model on the market, regardless of price or motor power (single, twin or quad).

2nd—Because we will live up to our agreement on deliveries, neglecting no one, no matter how few or how many machines their contract may call for.

Our first claim of superiority we can prove right now. For if you haven't learned all about the "Black Hawk" and its real value—we will send you our catalog so you can read of the remarkable points of advantage and sterling worth of the "Black Hawk's" design and equipment which places it in a class far above the $235 asked for it.

Take our catalog. Read about the "Black Hawk." Compare it with any other motorcycle that you know of. You'll learn that this marvel of motorcycle construction excels not only in one or two features, but embodies so many good points, most of them exclusive, that competition cannot hope to rank with it.

For instance, take the Motor of the "Black Hawk." It is so flexible that it will take all speeds up to 50 to 60 miles per hour and down to 4 miles without using the clutch.

Then there's the Sight Feed Mechanical Oiler, so automatic in action that all that's necessary is to once adjust it and it regulates itself to speed at which machine is driven, the flow stopping when the motor stops.

Another feature is the Steel Tank Built Integral with Frame. A few of the advantages of this form of construction is that it adds greatly to the strength and stiffness of both tank and frame, positively prevents leakage, does away with a large number of objectionable small parts, eliminates pockets which gather dirt, makes possible large filler caps, which render funnels unnecessary and provides for Low Saddle Position.

This Low Saddle Position of the "Black Hawk" is a reality, the saddle rising only to a point of 29½ inches from the ground, allowing the rider to place both feet flat on the earth without straining.

There are a score of other good points about the "Black Hawk." Some of these are the **Spring Seat Post and Spring Fork** which cannot bottom.

Improved Eccentric.

Improved Belt Tightener.

Free Engine Clutch, in rear hub, which makes rider master of the machine at all times.

Either of these features add enough value to the "Black Hawk" to make it the preferred machine wherever motorcycles are used.

Another good point in the "Black Hawk's" favor is its handsome appearance. The long, straight lines of the "Black Hawk," its clean-cut design, its real beauty and symmetry are worthy of more than passing mention. If you compare the design of this motorcycle with the ordinary type machine or those of the loop-frame construction you'll surely admit that you've never seen anything to equal it.

Trade Mark

BLACK HAWK

BH

RIDERS AND DEALERS

Don't fail to write for Our Catalog. It will aid you to a wise selection of motorcycle values. Book is the handsomest of its kind ever issued, as the "Black Hawk" is the best motorcycle ever built.

To back up all this, we will see that reasonable demands made upon us for orders are taken care of promptly. We want your business, because your interests are one with our own and because we are going to start the "Black Hawk" out right—

With Right Service Both to Rider and Dealer

We have the best of all motorcycles and a good seller for you. You ought to handle it. Ours is a good, straightforward money-making business proposition. You ought to be in on it.

May we not hear from you now asking for agency for your territory? It will pay you to write us to that effect.

Yours very truly,

BLACK HAWK MOTOR CO. Dept. B Rock Island, Ill.

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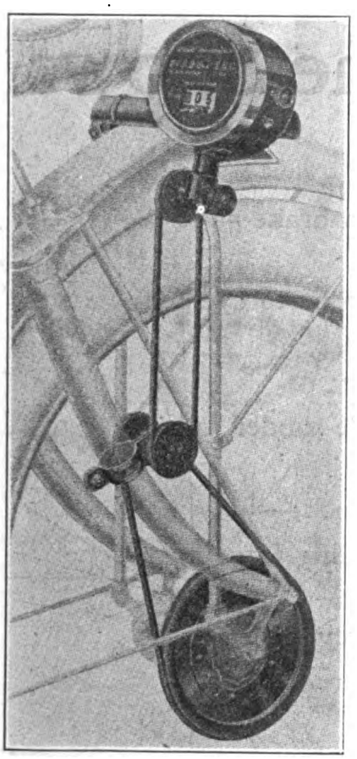
$12
Complete
Model D

75-mile speedometer; 100,000 mile season odometer; 100 mile trip register, which can be readily reset to any tenth of a mile without disturbing total mileage of season register, front wheel two belt drive complete with pulleys and brackets.

The New Stewart Motorcycle Speedometer

Magnetic Type

Showing the new Two-Belt Front Wheel Drive



HERE is the only practical motorcycle speedometer made. Just as accurate, reliable and complete as our most expensive automobile speedometers. Our Front Wheel Two-Belt Drive and manner of installation render it impossible for the speedometer to get out of alignment with its driving equipment, this because both instrument and driving equipment are attached firmly to parts that move in unison.

Is installed upon your mudguard or extension spring. As it thus is within the range of your headlight you can read it as easily at night as during the day. This is an exclusive feature not to be had with any other make.

Indicates accurately miles per hour, miles per day or trip; miles per season.

This special instrument is made on the famous magnetic principle. Over 95% of all the speedometers manufactured (for either motorcycles or automobiles) are now built on this practical principle.

For sale by dealers all over the world. Price $12 complete.

Write us for a handsomely illustrated catalogue which explains in detail, the many advantages and fine construction of this improved motorcycle instrument. This book is free. Write today.

The Stewart Speedometer Factory

1942 Diversey Blvd., Chicago, U. S. A.

SERVICE STATIONS:

Atlanta	Cincinnati	Indianapolis	New York	San Francisco
Boston	Cleveland	Kansas City	Philadelphia	Toronto, Ont.
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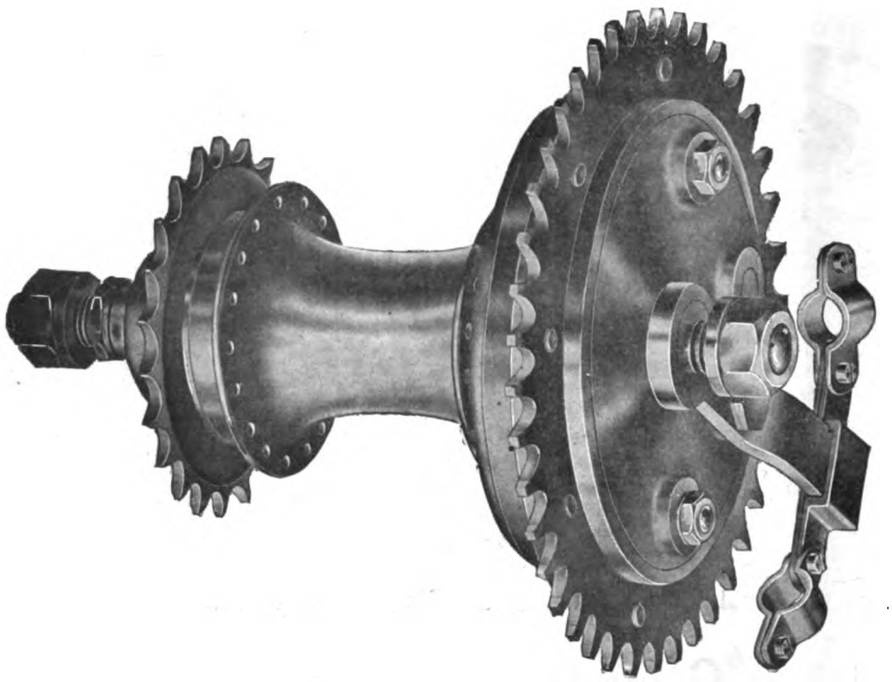

This Brake Was One of the Most Important Features of the Shows

It is exactly the same kind, type and design of a brake as is used in automobiles.

It is powerful enough to hold an automobile—or a motorcycle of several times the horse power of any now on the market.

It gives you everything the autoist has:—

Absolutely reliable control of your motorcycle under all conditions;—

Fool-proof—a brake that will not wind, bind or lock;—

A slight back pedaling pressure will exert a retarding force of a ton and a half.

You surely want to know about this newest motorcycle device.

Write for fully illustrated and descriptive literature.

The New Departure Mfg. Co. Bristol, Conn.

COASTER BRAKE LICENSORS

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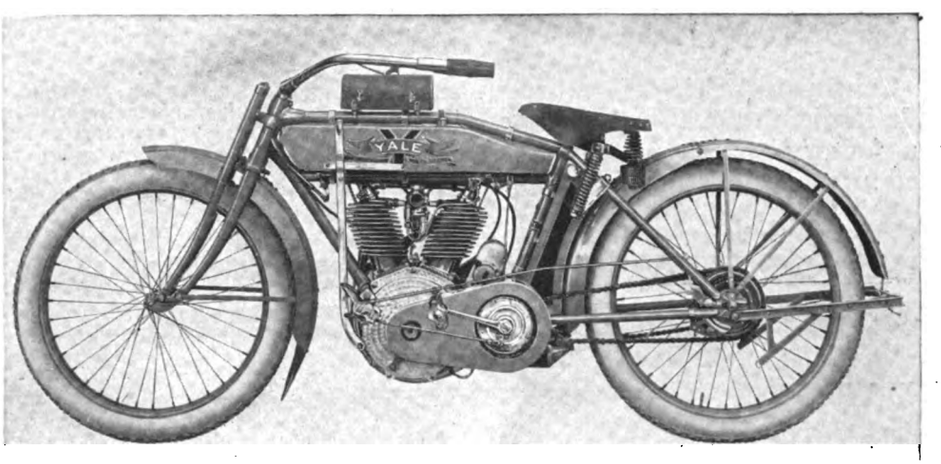
YALE

The Sad Tale of the Men Who Doubted

LAST Fall the Howard Cycle Co., of Trenton, N. J., contracted for 20 Yales. At that time Mr. Howard felt that there was no chance of selling more than that.

At the New York Show, however, he increased his contract to 50, for he had seen some of the wonderful effect caused by spreading the knowledge of Yale supremacy. That contract for 50 would surely take care of him, he believed, but—

On April 1st, every one of his 50 machines had been shipped to him to fill orders. Now what is Mr. Howard going to do?



BIG Yale twin. Powerful long-stroke motor. Bosch waterproof magneto. Mechanical oil pump. Three-inch tires (automobile size) with hinged rear mud-guard. Y-A shock absorber and Yale cushion fork insure comfort and perfect safety over all roads.

Then there is the case of Ray Bros., Louisville, Ky. Their limit was 25 machines when they contracted last fall—they couldn't expect to sell more than that, they said.

Now where do they find themselves? All of those 25 machines have been shipped right now. Where does that let Ray Bros. off for the balance of the season?

Likewise, there is the plight of John Kimpson, at Rochester, N. Y. All of the 25 machines on Kimpson's contract were shipped to him before April 1st. What will Kimpson do for machines to supply the demand now?

The moral of this tale is: Where do you stand?

Consolidated Manufacturing Co., 1730 Fernwood Avenue Toledo, Ohio

Eastern Representative, F. C. Cornish, 219 Clinton Ave., Newark, N. J.

Pacific Coast Representative, The Yale-California Company, 511-512 L. A. Investment Bldg., Los Angeles, Cal.

Makers also of Yale and Snell Bicycles, Hussey Handlebars, Steel Tubing, Bent Parts, and Drop Forgings of Every Description

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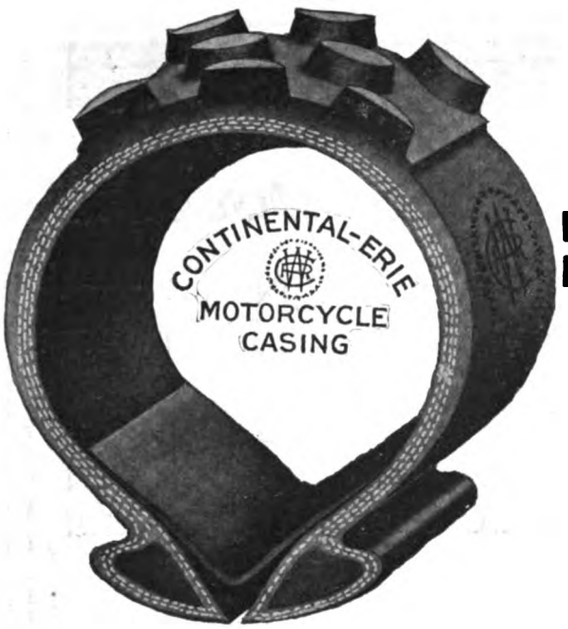


Continental Erie Tires

"The Tires of Greater Service"

The fundamental principles of good tire-making are, first, the use of the highest grade materials; second, careful, rigidly inspected construction and, third, the selection of the tread that will most adequately meet all requirements of every kind of road. Continental-Erie Tires are the nearest approach to tire perfection because in their construction are exemplified in the highest degree the three cardinal principles cited above.

Continental-Erie Tires are of the highest-grade fabric obtainable, the most resilient rubber in a factory whose watchword is "Care first, speed afterwards."

Another point—Continental-Erie Tires are made in one tread only—studded, which has consistently proven itself to be the most durable, the most effective tread from every standpoint. Hence, the money that would have otherwise gone in the manufacture of different molds goes into the quality of the tire itself, and the user benefits thereby. ASK THE JOBBER—HE KNOWS.

Continental Rubber Works
Erie, Pa.

Some Special R-S Features

R-S Cork Insert Cone Clutch, insuring perfect grip and very smooth engagement.

R-S Motor, with integral cams and gears of specially treated vanadium steel, large cooling flanges, long stroke, mechanically operated valves.

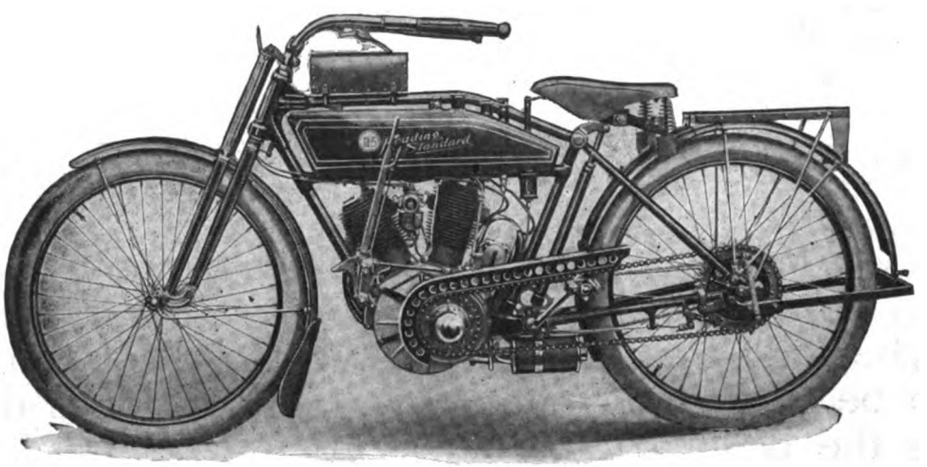
Double oiling system.

Foot rests, adjustable to various positions, shock absorbing spring seat posts, double brakes.

Grip control operated by *genuine* Bowden wire mechanism, entirely encased.

Undergeared transmission; single ⅝" pitch roller chain of the finest quality.

Price, $275



R-S Engineers are CREATORS not followers

Every detail of the R-S has been evolved by men who are confirmed "forward-thinkers"—men who are continually peering into the future and anticipating the rider's needs—not weakly following some one else's ideas. That is the main reason for the R-S's commanding position in the motorcycle field.

There are several strong reasons why the R-S should have every rider's consideration.

We are prepared to make prompt deliveries on all models.

READING-STANDARD COMPANY - 340 Water St., Reading, Pa.

Three Models

SERVICE
Belt Drive, - $200

TOURIST
Belt or Chain, $225

TWIN
Chain Drive, - $275

Our splendid art catalog will be mailed to any address upon request.

When writing to advertisers, please mention MOTORCYCLE ILLUSTRATED.

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The Most Perfectly Balanced Motorcycle in the World

The snapshot reproduced above shows two riders standing on the saddles of their 1913 Flying Merkel Motorcycles while traveling at a speed of **only** 16 miles per hour. Bear that fact in mind —**only** 16 miles an hour. There are very few motorcycles that will permit a rider taking his hands off the handlebars at such slow speed, to say nothing of standing on the saddle and riding in that fashion for a considerable distance. No, we emphatically disapprove of such riding, but the demonstration above shows that

THE FLYING MERKEL

is balanced like the movements of the highest jeweled watch. It means more than that to the rider. It denotes a motorcycle so perfectly balanced that there is no vibration whatsoever—a machine that one can ride through mud and over slippery streets without fear of it ever sliding from under him. It means SAFETY. Elimination of all vibration means that every 1913 Flying Merkel Motorcycle will more than outlive its liberal guarantee. Why fret and worry through 1913 with an expensive bone-shaker? For the same price you can purchase the world's most comfortable motorcycle and forget everything but the bright sunshine and the joy of living. Write today for our catalog and the name of the nearest Flying Merkel dealer—he will gladly give you a demonstration, for he knows—

"To Ride One Is To Own One"

The Miami Cycle & Mfg. Co.
300 HANOVER STREET
MIDDLETOWN, OHIO
MEMBER M.M.A.

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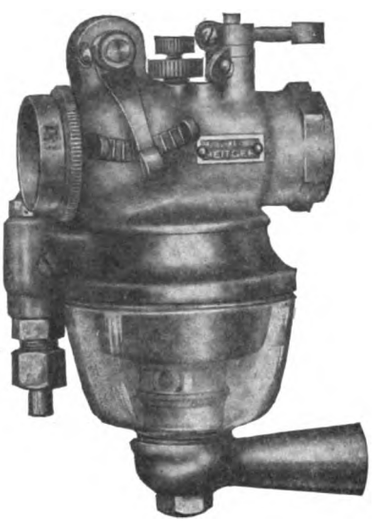
HEITGER MODEL K—1913

Made in ¾" and 1" pipe threads, and special threads for Spacke, Pope, H-D, Excelsior, Merkel, and Emblem, same list, ¾", $10.00; 1", $10.50. Where special fittings are needed, extra price. Has new air valve, no friction, or stems to wear, causing air leakage in low; air adjusted instantly from saddle, for starting, etc. Needs no priming in coldest weather. Furnished with glass or metal bowls, same price, the two being interchangeable.



HALF SIZE

Has new gasoline feed, two jets, one for low, one for high, with separate adjustments, giving minimum and maximum speeds. Owing to air valve action, etc., gives greatest possible speed to motor on minimum gasoline consumption. Light in weight, castings of aluminum, polished nickel plate.

Heitger Carbureter Co.

1129 Beecher St., INDIANAPOLIS, IND.

Standard

In Name and Quality

Never has there been a truer saying than the time-worn old adage, "It's the little things that count." And it is the degree of attention paid to these "little things," that determines oftimes the success or failure of a machine to "get across."

Wise manufacturers are equipping with Diamond "E" Spokes and Standard Pedals because they are quality goods—because they reduce the number of repair shop trips for the rider—because farsighted manufacturers realize that a motorcycle's weakest points are its strongest—and it is that infinite attention to detail which bespeaks perfection.

The dealer who looks ahead will stock heavily with Standard Pedals and Diamond "E" Spokes and Nipples. The motorcycles that are not so equipped will inevitably come to his shop for replacements and it is up to him to sustain his reputation for high-grade repair work by fitting Standard parts.

Everyone knows the superiority of Standard No. 3 Pedals, their deep, soft rubber cushions, the interchangeability of the rubbers, and the thousand and one other good features that are not found in other pedals. The feet cannot slip no matter how rough the going. And the perfection of Diamond "E" Spokes is proverbial.

The Standard Company

Torrington - Conn.

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Thor

The World's Greatest Motorcycle

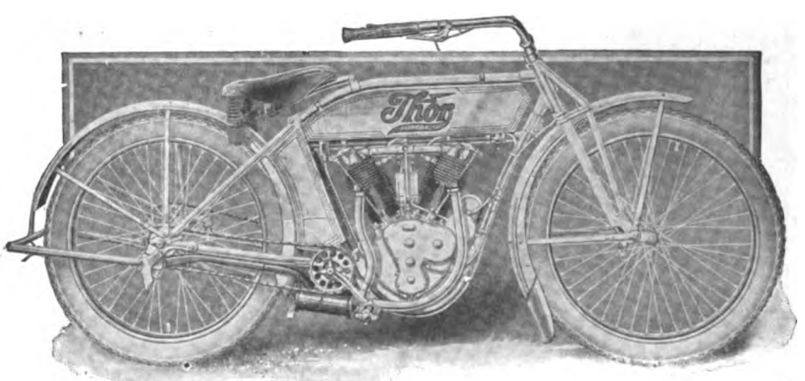
POSITIVE FACTS

Why is a THOR at its best after thousands of miles of hard usage on the road?
Why will a THOR run so long without mechanical attention?
Why can a THOR run 20,000 miles without overhauling?
Why may a THOR owner start on a thousand-mile tour at a moment's notice?
Why will a THOR bought this Spring have a higher relative cash value next Fall, next Spring or five years hence than any other motorcycle purchased at the same time?
Why does the particular buyer demand a THOR?
These questions are understood and answered by the rider who owns one and the dealer who sells them, while we can give our reasons direct. All you have to do is to drop a line.

Here are some of the features so noticeable, and which set a standard to make the WORLD'S GREATEST MOTORCYCLE.

THOR Motor and Bearings.
THOR Undergeared Internal gear direct chain drive.
THOR Mechanical Overhead Intake Valves.
THOR Carburetor.
THOR Mechanical Oiler.
THOR Design and Finish.
THOR Improved Spring front forks.
THOR Handle bar—Grip controls.
THOR Coaster Brake.
THOR Free Engine Clutch.
THOR positive two-speed.
THOR Material and Workmanship.

Aurora Automatic Machinery Co.
THOR BUILDING
1307 Michigan Ave.
Chicago



Pacific Coast Distributor: A. Freed, 1440 Market St., San Francisco, Cal.

New York City: New York Motorcycle Co., 782 Eighth Ave.

Boston: W. F. Mann Motor Co., 356 Columbus Ave.

Model "13-U" $290.00

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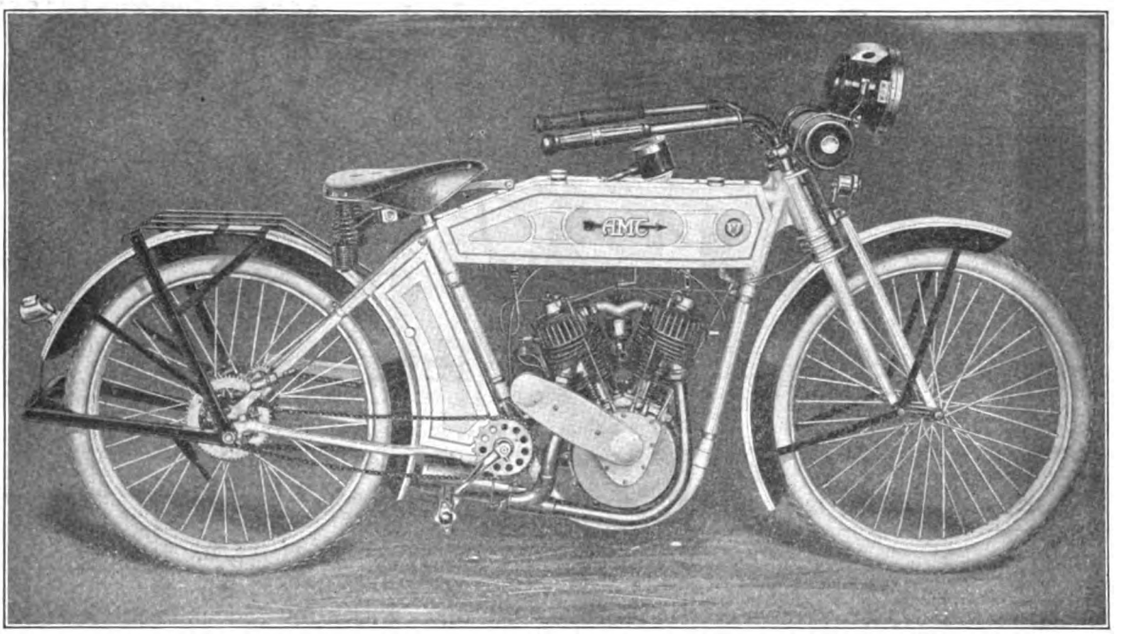


A M C

Model 37C

FULLY EQUIPPED

$285.00

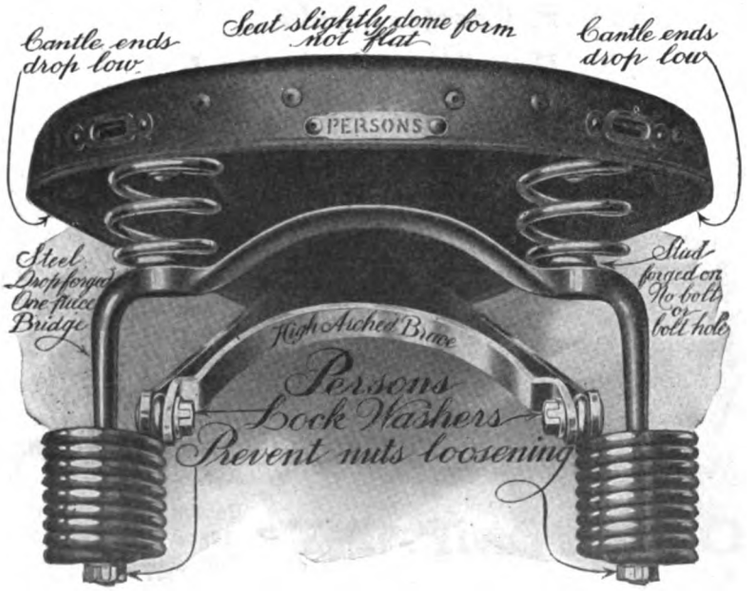
SEND FOR NEW CATALOGUE DEALERS GET OUR LIBERAL OFFER

ALLIED MOTORS CORPORATION

MAKERS

UNION PARK PLACE and CARROLL AVE. CHICAGO

SPECIFY
PERSONS CHAMPIONS!



A SPRING UPON A SPRING!

NO RE-BOUND!

NON-VIBRATORY!

ANTI-CONCUSSION!

THE PERSONS MANUFACTURING CO., Worcester, Mass.

Write for booklet "Facts and History"

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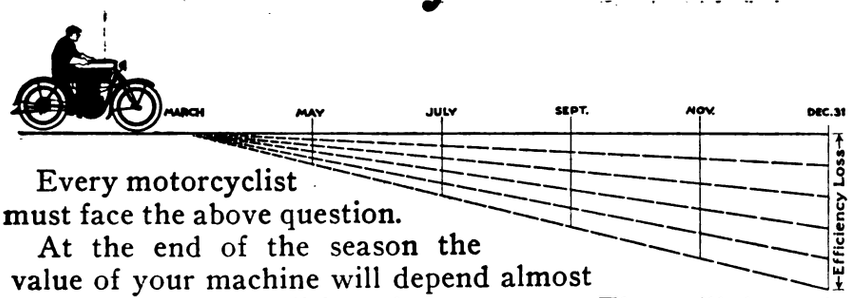
What will the year 1913 do to your motorcycle?



Every motorcyclist must face the above question.

At the end of the season the value of your machine will depend almost wholly upon the condition of your motor. That will depend mainly on the lubricating oil you have used.

Motor-wear is not accidental. It results from friction.

Excessive friction is bound to follow the use of an oil whose "body" is unsuited to your feed system, or whose lubricating qualities cannot properly withstand the demands of service.

Common results are:

(1) Undue loss of power.
(2) Unnecessary repair troubles.
(3) An excess consumption of fuel.
(4) An excess consumption of lubricating oil.

To avoid these losses, your motor must be supplied with:

(1) An oil that will retain efficient lubricating qualities *under the heat of service.*
(2) An oil that will *wear well* in use.
(3) Oil of a "body" that *will properly feed to the various friction points.*

Motors differ.

No short-cut method can determine the oil that best meets your feed requirements.

The construction of your motor *must* be analyzed and carefully considered.

The piston clearance must be known; the fit of the piston-rings into their recesses; the feed system; the length of the vacuum period while intake and exhaust valves are both closed.

We have undertaken this serious problem with the thoroughness that has established our standing in the general lubricating field.

To arrive at correct motorcycle lubrication we have done what *must* be done. Every year we carefully analyze the motor of each make of motorcycle.

Based on this motor-analysis, and on practical experience, we specify in a lubricating chart (printed on this page) the grade of Gargoyle Mobiloil best suited to your motor.

The superior efficiency of the oils specified has been thoroughly proven by practical tests. In sheer lubricating quality, we can safely say that they stand alone.

So far as correct lubrication can assure it, the grade of Gargoyle Mobiloil specified for your motorcycle assures:

(1) The greatest horse-power efficiency.
(2) The smoothest operation.
(3) The fewest repair troubles.
(4) The lowest operating cost per mile.
(5) The longest life to your motor.
(6) The greatest second-hand value.

Throughout the world you will find that the authoritative leadership of the Vacuum Oil Company in matters of lubrication is unquestioned.

The lubricating chart on this page represents our professional advice.

If you use an oil of less-correct "body" or of lower lubricating efficiency than that specified, your motor faces unnecessary friction and ultimate serious damage.

In buying Gargoyle Mobiloil from dealers it is safest to purchase a full barrel, half-barrel, or a sealed five-gallon or one-gallon can.

See that the proper name and the red Gargoyle, which is our mark of manufacture, appear on the container.

A booklet, containing our complete lubricating chart and points on lubrication, will be mailed you on request.

GARGOYLE

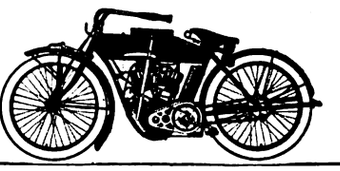
Mobiloil

A grade for each type of motor

The various grades of Gargoyle Mobiloil, refined and filtered to remove free carbon are:

Gargoyle Mobiloil "A"
Gargoyle Mobiloil "B"
Gargoyle Mobiloil "Arctic"

They can be secured from all reliable garages, auto-supply stores and others who supply lubricants.



Correct Lubrication

SMOOTHEST OPERATION | MOST POWER | FEWEST REPAIRS | LONGEST LIFE

Explanation. In the schedule, the letter opposite the motorcycle indicates the grade of Gargoyle Mobiloil that should be used. For example: "A" means "Gargoyle Mobiloil A." "Arc." means "Gargoyle Mobiloil Arctic." The recommendations cover all types of the same make unless otherwise noted.

Model of	1908		1909		1910		1911		1912		1913	
MOTORCYCLES	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
American					B	A	B	A	B	A	B	A
American Peugeot (2 cyl.)			B	A	B	A	B	A	B	A	B	A
American Peugeot (4 cyl.)							A	Arc.	A	Arc.	A	Arc.
A. M. C.											B	A
Apache	B	B	B	B								
Armac	B	A	B	A					B	A		
Arrow									B	A	B	A
Aurora									B	A		
Auto-Bi	B	A	B	A								
Auto-Tri											B	A
Bailey Flyer											B	A
Black Hawk									B	A	B	A
Bradley									B	A		
Breed									B	A		
Crouch	B	B	B	B								
Curtiss	B	A	B	A	B	A	B	A	B	A		
C. V. S.					B	B	B	B	B	B		
Dayton											B	A
De Luxe (1 cyl.)							B	A	B	A	B	A
De Luxe (2 cyl.)							A	Arc.	A	Arc.	A	Arc.
Detroit							B	A	B	A		
Detroit Bi-Car									B	A		
Eagle					B	B	B	B	B	B	B	A
Electra									B	A		
Emblem (1 cyl.)			B	B	B	B	B	B	B	B	B	B
Emblem (2 cyl.)					B	A	B	A	B	A	B	A
Erie	B	B	B	B								
Excelsior	B	A	B	A	B	A	B	A	B	A	B	A
Flanders									B	A	B	A
F. N.	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Geer	B	A	B	A	B	A	B	A	B	A	B	A
Gerhart									B	A		
Greyhound					B	A	B	A	B	A	B	A
Harley-Davidson	B	A	B	A	B	A	A	Arc.	A	Arc.	A	Arc.
Haverford							B	B	B	B		
Hilaman	B	A	B	A								
Henderson									A	Arc.	A	Arc.
Indian (1 cyl.)	B	B	B	B	B	B	B	B	B	B	B	B
Indian (2 cyl.)	B	A	B	A	B	A	B	A	B	A	B	A
Iver Johnson									B	A	B	A
Jefferson											B	A
Kokomo									B	A		
Majestic									B	A	B	A
Manson	B	B										
Marvel					B	B	B	B	B	B	B	B
Merkel	B	A	B	A	B	A	B	A	B	A	B	A
Michaelson											B	A
Minerva	B	A	B	A								
Minneapolis			B	A	B	A	B	A	B	A	B	A
M. M.	B	A	B	A	B	A	B	A	B	A	B	A
Monarch									B	A	B	A
Motorette									B	A	A	A
New Era			B	A	B	A	B	A	B	A	B	A
New Hudson											B	B
N. S. U. (1 cyl.)	B	B	B	B	B	B	B	B	B	B	B	B
N. S. U. (2 cyl.)			A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Peerless							B	A	B	A		
P. E. M.									B	A	B	A
Peugeot	B	A	B	A	B	A	B	A	B	A	B	A
Pierce (1 cyl.)			B	A	B	A	B	A	B	A	B	A
Pierce (4 cyl.)			A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Pirate											B	B
Pope							B	B	B	A	B	A
Racycle							B	A	B	A		
Reading Standard	B	A	B	A	B	A	B	A	B	A	B	A
Reliance	B	B	B	A	B	A	B	A	B	A	B	A
Royal	B	B	B	A	B	A						
Schickel							B	A	B	A	A	Arc.
Scout											B	B
Shaw											B	A
Theim	B	A	B	A	B	A	B	A	B	A	B	A
Thor (1 cyl.)	B	B	B	B	B	B	B	B	B	B	B	B
Thor (2 cyl.)	B	A	B	A	B	A	B	A	B	A	B	A
Torpedo	B	B	B	B	B	B						
Wagner	B	B	B	B	B	B	B	B	B	A	B	A
Yale (1 cyl.)	B	B	B	B	B	B	B	B	B	B	B	B
Yale (2 cyl.)					B	A	B	A	B	A	B	A

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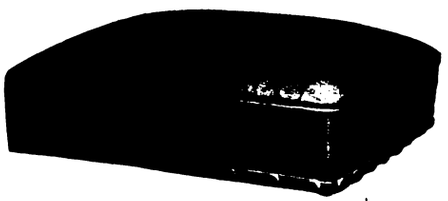

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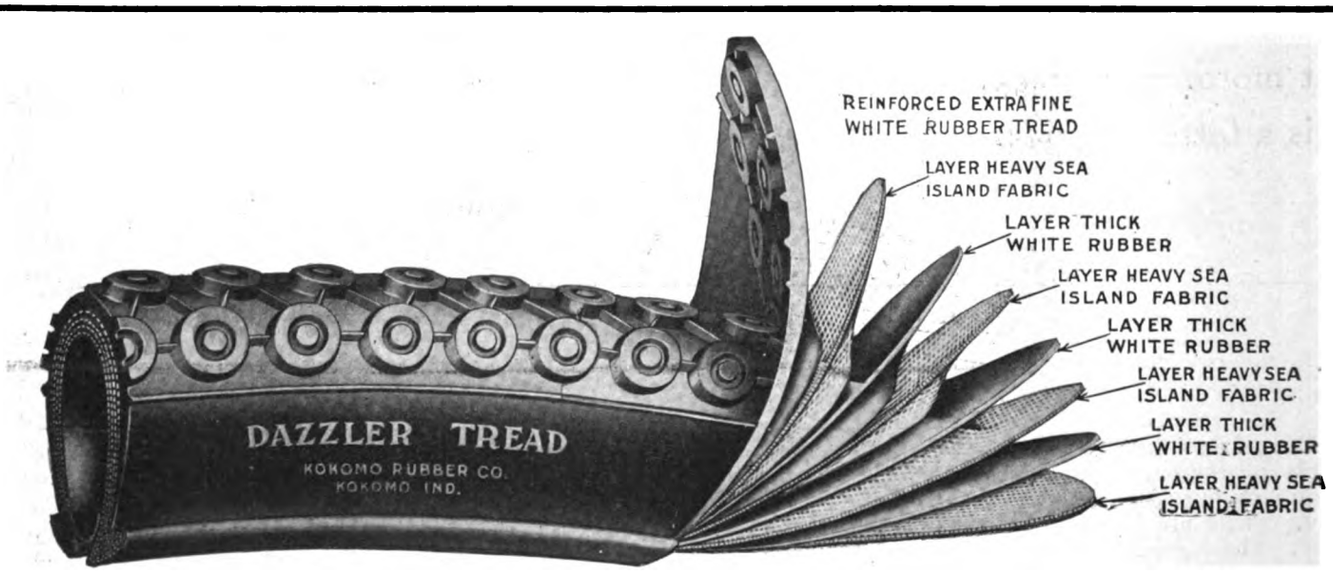

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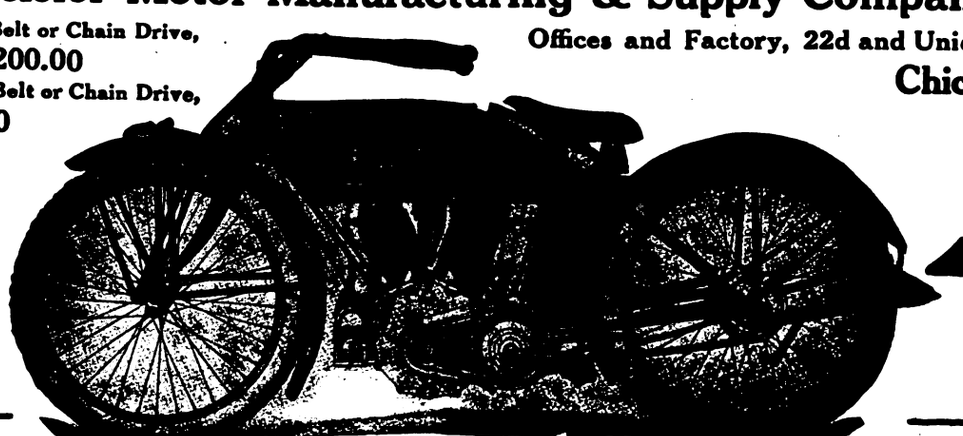

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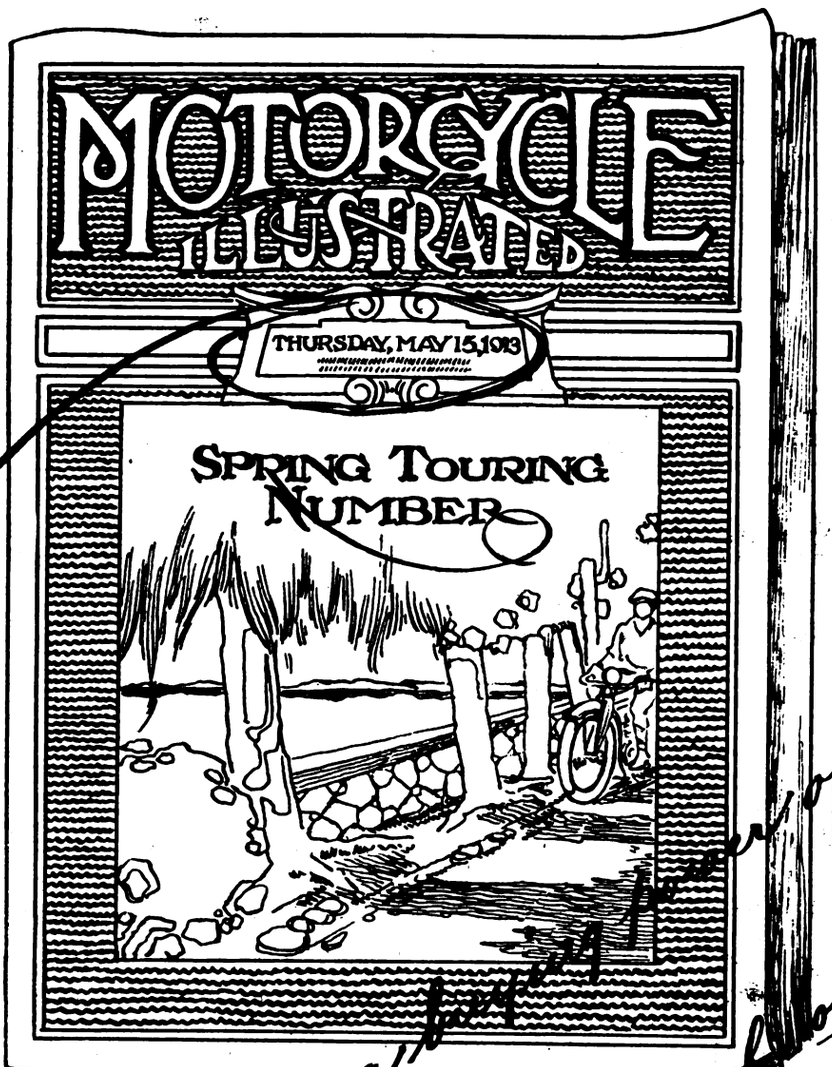

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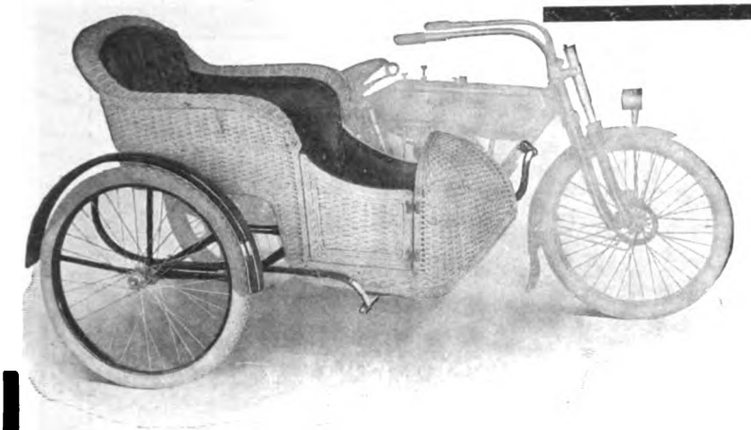

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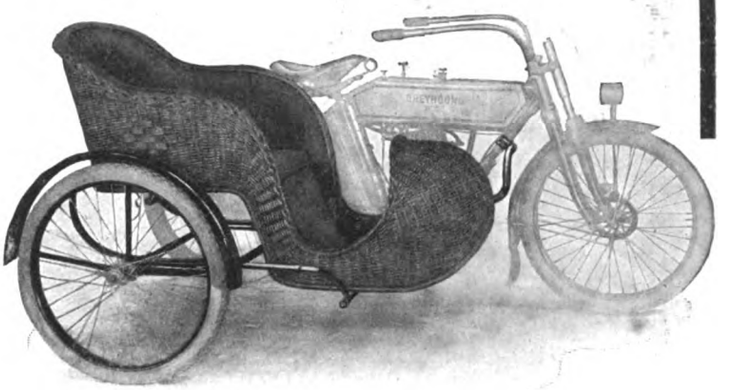

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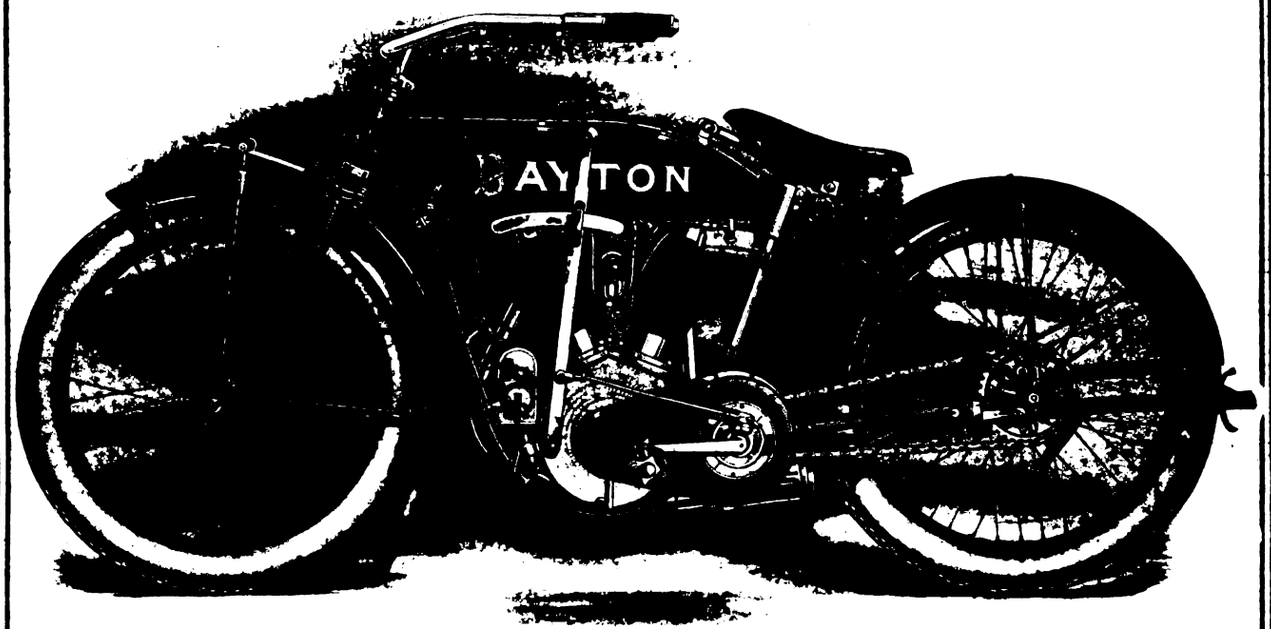

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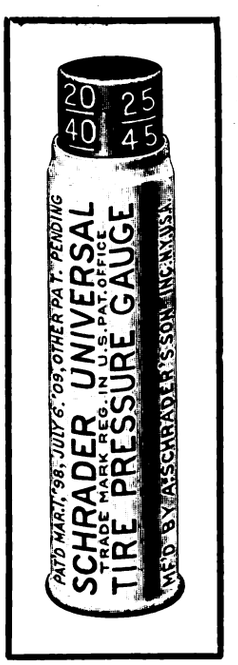

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MOTORCYCLE ILLUSTRATED

51 CHAMBERS STREET NEW YORK CITY | THURSDAY, APRIL 17, 1913 | TEN CENTS A COPY ONE DOLLAR A YEAR

F. A. M. Official on Last Leg of Lecture Tour

Clubs in New Haven, Hartford and Boston Welcome Director Sauer and Agree to Launch State F. A. M. Organizations—Speaker Promises Action to Improve Sidecar Regulations—Trip Will Close with Meeting in Newark, N. J., April 29

FOR the last leg of his 10,000-mile railroad circuit of the United States in the interest of the F. A. M., Director J. Leo Sauer, chairman of the National Committee on Legal Action, left New York Sunday to address a meeting that night in New Haven, another in Hartford Monday, and the third, of the New England series, in Boston Tuesday. The New Haven meeting produced direct results in the inauguration of a spirited campaign to organize the State of Connecticut. State Commissioner Sturgis is now arranging for a conference to select the convention city and also to make plans for one or more State tours and a State race meet in connection with the convention. He expects to make a definite announcement relative to the assembly in the course of a few days.

Beginning in Buffalo Friday of this week Director Sauer will address a dozen F. A. M. meetings before closing his circuit in Newark on April 29. His schedule follows:

Friday, April 18	Buffalo
Saturday, April 19	Cleveland
Sunday, April 20	Toledo
Monday, April 21	Detroit
Tuesday, April 22	Milwaukee
Wednesday, April 23	Indianapolis
Thursday, April 24	Louisville
Friday, April 25	Cincinnati
Saturday, April 26	Pittsburg
Sunday, April 27	Elmira
Monday, April 28	Philadelphia
Tuesday, April 29	Newark, N. J.

CLEVELAND WANTS THE CUP

The Buffalo meeting will be held in the Calumet Building under the auspices of the Buffalo M. C., and the Cleveland meeting under the direction of the Cleveland Club in the Hollenden Hotel. Cleveland club members are determined to win the silver cup offered by the F. A. M. to the city handing to Mr. Sauer the largest number of paid new memberships. In this connection officers of clubs in cities already visited by the F. A. M. director are reminded that all memberships received by Mr. Sauer up to and including May 1 will be given credit for, so that the cities first visited will have an equal chance with those farther down the schedule. Batches of additonal memberships have been promised by a number of clubs, notably Norfolk, Savannah, Ft. Worth, Salt Lake City and Denver. The affiliation of the Salt Lake City and Denver clubs is expected at any time.

Toledo was not originally in Mr. Sauer's itinerary, but in reply to a request for a meeting in that city the F. A. M. director replied that he would be pleased to make use of his only open date to address a Toledo meeting on Sunday, April 20.

Arrangements for the four meetings next in order in Detroit, Milwaukee, Indianapolis and Louisville are all complete. Louisville is another city which has assured Mr. Sauer of its determination to win the membership cup. After Louisville, Cincinnati is scheduled and then Pittsburgh, where the club has arranged to entertain the F. A. M. representative at a banquet in the Ft. Pitt Hotel on Saturday evening, April 26. On the following day Mr. Sauer will address the riders of Elmira, N. Y. Meetings in Philadelphia and Newark, under the auspices respectively of the Harley-Davidson and New Jersey clubs, will bring the traveling director to the end of his long trip.

WILL REACH 5,000 RIDERS IN ALL

Since leaving New York the latter part of February Mr. Sauer has addressed about 3,000 riders and he expects to bring the total up to 5,000 with the meetings scheduled during the next ten days. He has answered hundreds of questions, and it has been demonstrated to him that the average motorcyclist is most interested and anxious to learn more about the Federation's touring bureau and its legislative work. He has tried to impress his listeners with the importance of individual and club co-operation with the national body. He has urged, for example, that every member make it a point to contribute at least one tour this year to the F. A. M. Touring Bureau, so that it may be possible for the bureau to issue next winter a list of several thousand tours and publish the same in book form for the benefit of the members of the organization. In connection with legal action he refers to the fact that adverse legislation has just been defeated in New York and Indiana; that lawyers appointed and acting under the instructions of the Legal Action chairman are prepared to act on their own initiative to protect the legal rights of motorcyclists in all parts of the United States. The cost of legal service, however, is rather high, and the organization must necessarily wait upon a reasonable increase in membership before perfecting the Federation's legal organization so as ultimately to include every city in which there are motorcycle riders.

HARTFORD CLUB FOR F. A. M.

HARTFORD, CONN.—At Harry Bond's, in Hartford, Monday night, April 14, thanks to arrangements made by Messrs. Maslen and Connell, about two-score members and friends of the Charter Oak Club enjoyed a supper after listening to Mr. Sauer's address. The discussion which followed had largely to do with the ungainly size of the license plates which Connecticut riders are compelled to affix to their

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machines. Every one present attached his signature to a paper calling for the club's affiliation with the F. A. M., as soon as the necessary 75 per cent. of the club's total membership is lined up for the federation. Positive assurances were also given Mr. Sauer that the club would co-operate in organizing the State.

LIVELY MEETING IN BOSTON

BOSTON, MASS.—One of the most enthusiastic meetings addressed by the F. A. M. representative was that conducted Tuesday evening under the auspices of the Bay State Motorcycle Club in its headquarters at 325 Columbus avenue, Boston. Here again the licensing situation was discussed at length, particularly in regard to the practice of the State authorities in classifying a motorcycle, with sidecar attachemnt, as an automobile. Former State Commissioner and District Vice-President W. F. Maun and F. A. M. Secretary-Treasurer Gibson explained how through the efforts of the F. A. M. the Massachusetts law regulating the operation of motorcycles had been so amended as to make it reasonably satisfactory to riders, except that at the last moment a definition had been slipped in, by the law-makers, under which sidecars were being taxed as automobiles. Mr. James Baxter supplied some very interesting information in this connection, showing that the State authorities were not sure of their ground. Director Sauer pledged himself to look carefully into the situation as soon as possible.

The Bay State Club, which had already voted to affiliate with the F. A. M. on a 100 per cent. basis, also adopted a resolution that it would take the initiative to bring about the organization, under F. A. M. provisions, of the State of Massachusetts. The first move will be made in Worcester, Sunday, in connection with a run which will bring to Worcester riders from different ports of the State, and also from Providence. It is possible that the Rhode Island riders will join with those of Massachusetts in organizing the latter State. State Commissioner Luden asked for the co-operation of the Boston riders, and after the meeting announced the appointment, as local commissioner, of W. Fraser Holiday, of 178 Columbus avenue. Holiday is very popular with the boys, and an all-around booster and hustler. The interests of the federation in Boston will be well safeguarded by the new commissioner.

F. A. M. SPEAKER IN CHICAGO

CHAIRMAN J. LEO SAUER of the National F. A. M. Legal Action Committee wound up the western leg of his transcontinental missionary tour with a meeting at the Chicago Motorcycle Club's headquarters at 3518 Ellis avenue, Chicago, when he addressed one of the most representative audiences of his trip. The Federation directors who were in the city for their board meeting were on hand to hear the message, while officials of the Illinois state organization were also present.

Mr. Sauer pointed out that the greater portion of the Federation's income had been spent, so far, in the building up of the large membership, but that the time had arrived when more attention would be paid to the general protection of the riders.

It was brought out that the speaker had appointed lawyer-representatives in all the big centers which he had visited on the tour, to take up cases which would lead to the establishment of legal precedents. The F. A. M. is eager, declared Mr. Sauer, to fight good cases, in which a victory would tend to the betterment of conditions for all. Already it had, at a cost of $155, saved the riders of New York State an aggregate of $21,000, and the speaker stated that the Federation is anxious to help the riders of other states in the same manner.

Mr. Sauer asked for touring information contributions from the motorcyclists which the Touring Bureau was arranging for members all over the country. The official in charge of this department was, he said, receiving inquiries daily for routes and the best information available is being supplied. This information could be improved, however, and every member was urged to aid in the work of collecting reliable routings.

Mr. Sauer asked for suggestions from the members at large and urged upon them the advisability of forming a habit of co-operating with the national officers. He did not want them to believe that the officials were "merely running things" in the usual sense.

President B. J. Patterson supplemented the address of Director Sauer with a few impromptu remarks. He pointed out that some of his state commissioners had been very active in the securing of benefits for their particular charges, but that some had been "asleep on the job." He also showed that the trips of the directors to the various special meetings were costing the officers considerable sums, personally, and that sessions had not been mere joy-gatherings.

Dr. Patterson also extended a general invitation to the riders of Chicago to take part in the next Kansas Short Grass Club tour at the expense of the club. He assured those present that it would not cost them a penny for entrance fees, although the actual members of the Short Grass Club had to contribute a $30 fee. The chairman of the meeting was President Purdy of the Chicago Club.

FINE SHOWING IN ST. LOUIS

ONE of the most interesting meetings so far addressed by Director Sauer on his F. A. M. lecture circuit was that held in St. Louis under the auspices of the South Side M. C. on April 2. Although the program was presented in the headquarters of the South Side Club, the arrangements were made by a joint committee, representing the St. Louis M. C. and the Independent Motorcycle Association, as well as the South Side squad. The attendance was over 200, and there was no end of enthusiasm.

The automobile carrying the reception committee and Director Sauer was followed through the principal streets by a procession of one hundred motorcyclists on their machines, and an excellent impression was created all along the line. The official automobile was escorted by six motorcycle policemen.

There were strong indications during and after the meeting that the three clubs of the city will consolidate and form one big F. A. M. squad. Suggestions along this line by Mr. Sauer were greeted with cheers, and a spirit of whole-souled co-operation was evident throughout the program. The F. A. M. representative brought fifty Federation pins to the meeting and memberships were received so rapidly that the supply was soon exhausted. At the table with the speaker were A. F. Greenfield, president of the South Side M. C.; P. G. Kennett, president of the St. Louis M. C.; A. L. Voight, representing the Independent Motorcycle Association, and President Heinz, of the East St. Louis M. C.

On the following night Director Sauer spoke before the East St. Louis M. C. and twenty new memberships were turned over to him.

IT is figured that there are 150 motorcycles in use in Harrisburg, Pa.

Denver Will Be Scene of F. A. M. Convention

Federation Directors, Sitting As Competition Committee in Chicago Session, Choose Mile-High City for 1913 Assembly and Action Will Be Ratified At Another Meeting of Directorate

FOR the first time in the history of the Federation of American Motorcyclists, the 1913 National Meet and Assembly will be held in a city west of the Mississippi. At a meeting of the F. A. M. Board of Directors held at the Auditorium Annex in Chicago on Friday, April 4, the board, sitting as the Competition Committee, recommended that the meet be held in Denver during the week commencing Monday, July 28. In due time, this action will be approved by the directors. As a matter of fact, as the Board of Directors and the Competition Committee consist of the same individuals, the recommendation of the Competition Committee is practically final.

The selection would have been made by the directors as such, were it not for the fact that there is a peculiar provision in the F. A. M. Constitution and By-Laws to the effect that the convention city must be selected not more than ninety days or less than sixty days before the opening of the convention. As soon as the time limit is reached, however, President Patterson will place the recommendation of the Competition Committee before the directors and they will naturally approve of their own action. There is no question as to the selection of Denver, although it is possible that the date may be advanced one week, to Monday, July 21. That will be finally decided about the first of May, when the directors ratify the selection of the Mile-High City.

The Chicago meeting was attended by President B. J. Patterson and Directors Thornley, Johnson, Hamilton, Collins and Sauer. Director Sauer held the proxies of Directors Willis and Estabrook.

REPORT ON LECTURE TOUR.

Director Sauer reported at length regarding his trip through the South, up the Pacific Coast and back to Chicago. He stated that he had found, in nearly every city visited, a disposition to co-operate with the national organization, although in many cases officers and members were rather at a loss as to the proper means to adopt. He found that the movement on the Pacific Coast in opposition to the F. A.

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M. was due largely to the fact that the members in the states of California, Washington and Oregon felt that they were not properly and adequately represented in the administration of affairs of the Federation.

In addition to pointing out how all the desired local autonomy could be secured by the organization of states, Director Sauer had promised to recommend to the directors and subsequently to the National Assembly their approval and adoption of an amendment to the Constitution providing for territorial distribution of the members of the National Directorate, together with an arrangement whereby each director would have control of a certain proportion of the national funds, on a percentage basis according to memberships. A proposition along these lines will soon be offered at the Seattle Club to the members of the W. F. M., and when approved by them will be presented to the National Assembly in Denver. There is no question but that it will be easy to make an adjustment on this basis, and it is more than probable that all who are now W. F. M. members will be members of the F. A. M. after the Denver meet.

Although the Board of Directors has no power to amend the Constitution at the meeting in Chicago, it was unanimously voted that it was the sentiment of the Board that means be devised looking toward such a distribution of the F. A. M. directorate, so as to insure to members in all parts of the United States equal representation.

In connection with the decision to stage the next F. A. M. convention in Denver it was stated special tours will be arranged to the assembly city. President Patterson will head a big division from the Kansas district.

President Patterson brought up the matter of increasing the fees of F. A. M. referees, and the Directors voted that inasmuch as the printed rules have been published for 1913 the Board has no power at present to change them. The Board interpreted Section 2, Article 2 of the competition rules, relative to referees' fees on board tracks as follows: $10, where one meet a week is held; $5 for each meet, including the first, where the schedule calls for more than one meet a week.

It was voted that the matter of the ocean-to-ocean relay race be laid on the table.

The Board voted that where three or more sanctions are issued in a week to any promoter the Chairman of the Competition Committee may, at his discretion, place all the sanctions for the week on one blank, and that under such conditions it will be considered that the races are not completed until Sunday night, at which time all prize money will be due.

W. M. Johnson, vice-president of the League of Racing Clubs, reported that the league will be governed by the rules and regulations of the F. A. M., and that it is desirous of co-operating with the Federation in every way possible. The Directors welcomed this statement and voiced the opinion that it will do much to maintain a high standard for board track racing.

The Directors decided that if F. A. M. members in the District of Columbia desired to come under the jurisdiction of the Maryland state F. A. M. organization it will be entirely satisfactory for them to take such action.

The Board adjourned at 2:30 a. m., after having been in continuous session for sixteen hours, excepting the time spent at the headquarters of the Chicago Motorcycle Club, where Director Sauer gave his lecture before a gathering of riders of the city.

Manufacturers Discuss 1914 Show Plans

M. M. A. in Buffalo Session Instructs Committee to Obtain Data for Full Report Relative to Next National Shows—10,000 Feet of Space for Motorcycle Display at Panama Exposition

BUFFALO, N. Y.—At a busy session of the Motorcycle Manufacturers' Association held in this city April 9 some time was devoted to a discussion of national show plans for 1914. It was decided to utilize about 10,000 square feet of space for a motorcycle display in the Motors Building at the Panama Exposition, the Traffic Committee submitted a report relative to the freight rates situation and the Association went on record as opposing the 650-mile road race proposed by the Short Grass Club, of Kansas, in connection with its annual tour.

After the 1914 show proposition had been pretty thoroughly threshed out it was decided that the matter should be left in the hands of the present Show Committee to permit of fuller investigation before definite action is taken. The committee, which is composed of President A. B. Coffman, Arthur Davidson and F. J. Weschler, was instructed to obtain all the data possible with a view of submitting a full report at the next meeting of the Association, which will be held at the Hotel Lafayette, in Buffalo, on June 10.

NO SEPARATE BUILDING AVAILABLE.

The committee in charge of plans for a motorcycle display at the Panama Exposition reported that it will not be possible to obtain a separate building for the exhibit, and recommended that advantage be taken of an opportunity to occupy 10,000 square feet in the Motors Building. This will permit of a suitable display, and the Association will be prepared to make the most of the occasion.

When a question was raised relative to the proposed road race of the Short Grass Club the Association opposed the idea on the ground that such a contest was hedged by too many obstacles and that it might create unfavorable sentiment in the cities and towns along the route. Finally the M. M. A. went on record as being opposed to contests of this character and as favoring only tours, hill-climbs and reliability events.

A letter from President Patterson of the F. A. M. requesting aid from the manufacturers toward making the 1913 assembly of the Federation a success was laid over, owing to the fact that no official information was at hand relative to the choice of the convention city by the F. A. M. Board of Directors.

FACTORY REPRESENTATIVES.

Among the manufacturers and factory representatives in attendance at the meeting were the following: President Coffman, Secretary L. D. Harden (Pope Mfg. Co.), Arthur Davidson (Harley-Davidson Motor Co.), A. J. Nusselman (Allied Motors Corporation), E. J. Knight (Aurora Automatic Machinery Co.), A. M. Mitchell (Black Hawk Motor Co.), W. G. Schack (Emblem Mfg. Co.), Peter O'Horo (Chicago Cycle & Supply Co.), H. N. Kirk (Excelsior Motor Mfg. & Supply Co.), W. P. Schamber (Minneapolis Motor Co.), Norbert H. Schickel (Schickel Motor Co.). F. J. Weschler, of the Hendee Mfg. Co., was reported as absent for the first time.

A number of representatievs of allied industries were to be seen at the meeting place, among them being S. A. Falor and W. J. Cameron, of the Goodyear staff; Bert A. Quayle, of the Standard Welding Co.; F. W. Pardee, vice-president of the Ericsson company, that is producing the new Berling magneto; Albert L. Pope, of the Pope Mfg. Co.; A. H. Harrop, of the Corbin staff; Horton, the New Departure booster; L. B. Lyman, of the Goodrich forces, and O. J. Oberwegner, of the Oberwegner Motor Co., of Toledo, O.

A report of Merle Sidener, of the National Dealers' Information Bureau, was to the effect that 1,700 dealers are now making use of the special advertising service provided for them, and that encouraging results are being obtained on all sides.

The Traffic Committee submitted a statement on freight rates, which is printed elsewhere in this issue, and the Show Committee reported a satisfactory surplus over the expenses of the independent Chicago Show.

After the meeting the M. M. A. members and press representatives were entertained at a luncheon at the Lafayette Hotel by W. G. Schack, of the Emblem Mfg. Co., and the occasion proved fully as enjoyable as other of a similar nature over which Mr. Schack has presided.

In the evening F. W. Pardee, of the Ericsson company, gave a theatre party at the Teck theatre, in which twenty-five of the motorcycle boosters figured.

A. H. Harrop settled part of Bert Quayle's expenses for the trip as the result of a pool game in which the latter demonstrated his ability to roll off the ivories in winning form.

OIL PRODUCTION

DURING the year 1911 it is estimated that the total production of crude oil was 220,000,000 barrels. Complete data for the 1912 production has not been gathered, but present reports indicate that it was somewhat less than for 1911. The total production for 1910 was approximately 200,000,000 barrels. The gasoline producing crudes in 1910 figured 126,000,000 barrels; in 1911 there were 127,000,000 barrels and in 1912 about 124,000,000.

TO BOOM GOOD ROADS

A CONFERENCE of the good road advocates of the Pacific Coast will be held in Eureka, Cal., on August 21 and 22. It is the object of this meeting to organize a Pacific Coast Good Road Association.

ALLEN DUNWIDDIE and William B. Conrad, of Janesville, Wis., are preparing to tour Europe by motorcycle during the summer.

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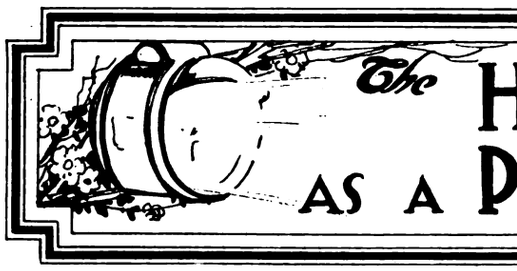

The HEADLIGHT AS A PROTECTOR

by RODMAN BARRY

I HAVE always inclined toward the belief that a motorcyclist who goes in for night riding without carrying a dependable headlight is hardly entitled to the sympathy of his friends when he comes to grief—as he is quite certain to in time—and this opinion has been considerably strengthened by several first-hand lessons I have received during the last year. Feeling as I do about the importance of a good lamp, it is my policy to carry one whenever there is the slightest danger of my being caught on the road after nightfall, but I am only human and I have not always adhered strictly to my resolution. A cheap lamp, turned out by inexperienced hands, is ever a menace, and even a well-made lamp cannot operate successfully unless it receives proper attention. Failure to keep these facts in mind resulted in experiences that set my hair on end on two memorable occasions.

On one of these occasions I neglected to attend to a clogged burner, and on the other I was using a borrowed lamp that should never have found its way to the front of a motorcycle. This lamp was one of those nameless contraptions that get onto the market in some way, and through their cheapness enter into unfair competition with reputable products. They should be frowned upon by every rider, for in the end they may prove mighty costly. Luckily our best-known manufacturers are supplying such excellent lamps these days that no one has an excuse for using an inadequate lighting system.

ON A NEW JERSEY TRIP.

By way of getting back to my experience with the unreliable lamp, I will state that I was making a motorcycle trip through New Jersey late last autumn, my route leading southward through the state from Newark to Atlantic City. I did not intend to do any night riding on this outing, but was carrying my lamp as usual for emergency service. Between Elizabeth and a town called Rahway I turned a corner at a twenty-mile clip to find myself slithering all over a freshly sprinkled piece of macadam roadway. Before I could get my mount in hand I went down—hard. Then I scraped about a pound of mucky material from my new riding togs and inspected my machine. My final slide had ended against a curb and my lamp was out of commission, but otherwise the machine had escaped injury.

This was about three in the afternoon, and while I mourned the damage to my lamp I was not worried especially for I did not feel that I would need it. In a town called Woodbridge, not far from Rahway, I have a cousin, and I decided to pay him a visit. He was a motorcyclist—or had been. At any rate, he had an old relic of a machine and insisted upon my looking it over. Finally he suggested that I exchange lamps with him, taking the one fitted to his machine and leaving mine to be repaired, with the understanding that I would call for it on my return trip. I argued that I did not intend to ride at night, but finally allowed myself to be persuaded, and when I got under way again my cousin's lamp was on the front of my machine.

A HAIR-RAISING EXPERIENCE.

He assured me that his lamp was as dependable as death and taxes—and that's what started the trouble. I chugged on to Perth Amboy, a busy manufacturing city opposite the lower end of Staten Island, and decided to have supper there. After eating, I strolled about and reached the conclusion that the early evening would be ideal for riding. I spent an hour chatting with a young motorcycle agent, and having my tanks refilled, and was in no hurry to get under way. The agent helped me to tinker with the borrowed lamp, and we finally had it in what appeared to be good working condition. When I started it was dark. My old resolution against night riding over unfamiliar roads cropped up, but I consoled myself with the thought that I had a lamp and that I was going to travel slowly.

Over the Raritan River between Perth and South Amboy is a long wagon bridge of the revolving draw type, and approaching the draw from the Perth Amboy side is a considerable down grade. As I rode out on the bridge I noticed that my lamp was flickering feebly, but I decided to cross the bridge before getting down to doctor it. I chugged onward at about fifteen miles an hour, and was able to see only half a dozen yards ahead. Suddenly I noticed a mysterious gleam directly in my path, and at the same instant the hazy outlines of an iron gate presented themselves. The draw was open. The next few seconds have burned themselves into my memory for all time. I shut off the power, clapped on my brake and threw myself sidewise from the machine, all in an instant. I made a splintery slide along the bridge and my machine struck the gates and was stopped. Then I stood up and mopped cold perspiration from my brow; there was a lot more running down my spine that I couldn't reach.

HOW THE LAMP WAS TO BLAME.

It should be stated that this bridge is not ordinarily dangerous, and I am told that motor traffic over it is very heavy throughout the summer, but it was wholly unfamiliar to me. Had I known anything of what to expect I would have had no trouble, but being a stranger I had to depend on my light—and my light betrayed me. With my own lamp or any good headlight I would have seen the closed gates while still a score of yards from them, and would have stopped without difficulty. As it was, I had the closest kind of a shave from a plunge into the river. I did no more riding that night, but pushed my machine back off the bridge and stored it in an automobile garage until the next day. The garage owner was unable to understand how I had got into trouble. He argued that the lights on the bridge should have guided me—but they didn't. There weren't many of them, and besides I was looking directly ahead where the beam from my lamp should have been.

On another occasion I was touring in eastern Pennsylvania, and at nightfall I found myself in a hamlet which held out no inducements for an overnight stop. The hotel accommodations were negligible and there was no motorcycle dealer there. Accordingly I decided to ride on to the nearest large town, a distance estimated by one of my rural informants at about twelve miles. A twelve-mile jaunt, even at night, is nothing to worry about, so I lighted my lamp, made road inquiries and chugged on my way. I had been riding about twenty minutes and was enjoying the cool evening air to my heart's content when I struck a boulder, jarred my light out and took a mild spill. I was not injured and after lighting my lamp again I was ready to proceed—with more caution.

ANOTHER NARROW ESCAPE.

At this juncture my burner developed a cranky streak and the light was far from up to its usual effectiveness. I tinkered with it a bit, and finally decided that the next town could not be far distant and that I could make it without difficulty. I started. At the next turn in the road I came to quite a steep down grade. I entered upon it somewhat gingerly, but my machine picked up speed and in another minute I was bowling along at about twenty-five miles an hour. This did not bother me, as the road was fairly good, but the feeble beam from my lamp was of little or no value to me for lighting up the road, and I peered ahead a bit anxiously. While thus engaged I heard a faint rattle directly in front of me, and the next instant I discerned the back of a closed wagon. I was not over twenty yards from it and making twenty-five miles an hour on a down grade. I let out a yell that must have been heard in the next county, but realized that even if the driver of the wagon understood what it meant he could not pull off the road in time to save me. I had a horrible flash of thought that I had telescoped the wagon and that I was lying maimed beside the road while the frightened horse was plunging off into the night. It is strange how minutely gruesome details present themselves on such occasions.

Of course I didn't strike the wagon. If I had I probably would not be writing this to warn other riders. I swerved quickly to the left and went off the narrow road into a ditch. It was what you might call a bad spill, but I came out of it with only cuts and scratches and a broken pedal. The driver of the wagon either did not hear the crash or was not interested; at any rate, he did not stop. I finally reached my stopping place for the night, but it may be taken for granted that I traveled the rest of the distance at a snail's pace. I had learned my lesson. The moral is obvious—carry a good lamp and keep it in condition.

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Advantages Claimed for the Silent Chain

Student of Transmission Conditions Argues That Silent Type Will Do Much to Advance Cause of the Motorcycle, by Simplifying Adjustments and Affording Greater Strength Than Roller Chain

By R. McV. C.

ALTHOUGH I am a constant reader of your magazine, I do not recall ever having read an article which advocated the use of a silent chain for a motorcycle, and I have at last decided to call attention to some of the advantages of this type of transmission. I have given the subject careful study and have done considerable experimenting, and I really believe that it will be only a matter of a year or two before the silent chain will be the standard motorcycle transmission.

The chief obstacle, of course, is that the silent chain cannot be used successfully without an efficient gaurd. While a roller chain does not absolutely need a guard, it is essential for a chain of the silent type to be equipped with one, not only to keep out dirt and water, but also to permit of thorough lubrication.

I have tried a silent chain in place of the roller chain used between the motor and the intermediate sprocket, and was so pleased with the result that before the present season is over I will have a motorcycle equipped throughout with silent chains.

CHAIN CAN BE PROPERLY GUARDED.

Of course, the pedaling chain does not need to be considered, for two reasons: In the first place, it is seldom used except for starting, and secondly, I believe only a short time will elapse before all motorcycles will be fitted with self-starters, and these will eliminate the pedaling chain. The development of the motorcycle is being closely watched these days by the public, and in my estimation self-starters, two-speed devices and silent chains are the features that will do most to bring the motor two-wheeler into the good graces of the skeptical outsider. I am convinced that next season will find practically all the leading models embodying two, or possibly all three of these details.

As for guarding the silent chain, that is not as difficult a proposition as might be supposed. Guards now being used on two of the leading makes of American machines could be made to answer the purpose very well. I now have a design drawn for a special guard and as soon as possible I intend to have it made and fitted to my machine. My idea is to have the guard of the telescoping type, which can be accomplished by running a bead along the edge and thus providing for adjustments.

The standard motorcycle chain is a ⅝-in. pitch, ¼-in. roll chain, and the distance over all (extreme width) is 9/16-in. The Whitney silent chain No. 1220 has a pitch of ½ in., is ¼-in. over the links, and ⅝-in. over all, so that by simply changing the sprockets to conform to the silent type and placing an efficient guard in position, a silent chain can be used on almost any motorcycle that is being marketed today.

RELATIVE MERITS OF CHAINS.

Very little space need be given to discussing the relative merits of the two types of chains, for I believe everybody is well aware of the better service given by the silent chain. A silent chain will stand 700 pounds more pressure per square inch than a roller chain of the same relative size, so that the danger of chain breakage is reduced to the minimum. Again, the silent chain requires only about half the adjusting that is necessary with the roller chain, for a silent chain adjusts itself to a great extent; "it's the nature of the beast."

Below I give the formula which is used on the S. A. E. data sheets pertaining to silent chains for the benefit of any fellow rider who may be interested. We are to keep in mind that the length of a chain should always be in multiples of twice the pitch, and that in the formula the length of the chain is found in pitches, not inches. To get the latter is a simple matter after solving the formula:

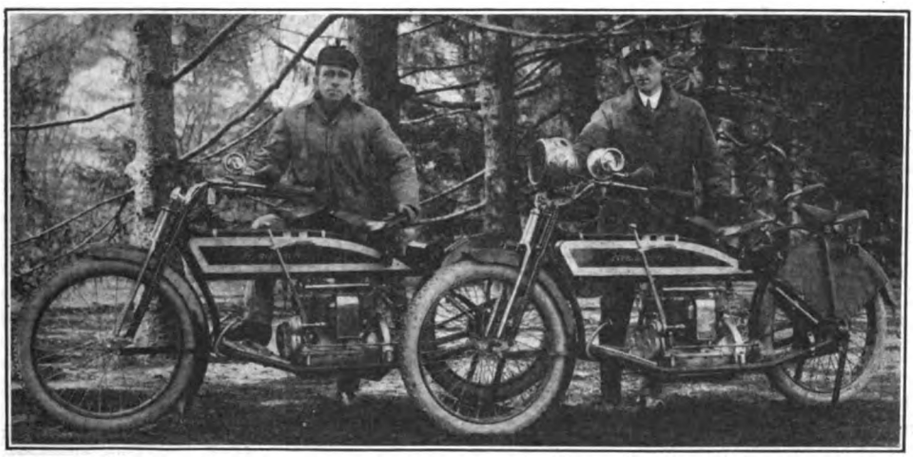
C = Distance between centers in pitches.
L = Length of chain in pitches.
N = Number of teeth in large sprocket.
n = Number of teeth in small sprocket.

$$L = 2C + \frac{N}{2} + \frac{n}{2} + \frac{\left(\frac{N-n}{6.2832}\right)^2}{C}$$

SILENCE A BIG ASSET.

The chief fault that the general public held against the motorcycle at one time was its noise. Now that machines have been perfected to the point where there is a vast improvement in silent running, the single-tracker is gaining recruits that could never be induced to ride the noisy contraptions of a few years ago. Greater silence in operation has helped the motorcycle in both pleasure and commercial circles in this country.

The automobile had to come to the shaft drive partly because the public objected to the noise of the chains, and it is only reasonable to believe that the motorcycle can and will be made to run as quietly as the best shaft-driven, poppet-valve automobile. I believe the silent chain will permit of a great step in that direction, and therefore hope to see manufacturers give it a fair tryout in the near future. How long will it be before we can straddle a two-speed, self-starting motorcycle fitted with a rotary valve or sleeve-valve motor, and with silent chain transmission? I'd like to wager that it won't be very long.



John P. Hooper and Fred Arend, Trenton Enthusiasts, on a run with their 1913 Hendersons Into the Pine-Tree Belt of New Jersey.

HUTTINGER AND GIBSON RETURN

FINN HUTTINGER and "Wild Cat" Gibson, both of whom starred at the St. Louis Motordrome last season, have just returned to St. Louis after a tour of the United States. At the close of the riding season the racers left St. Louis for Cleveland, from which point they rode to the Indian factory at Springfield. They next toured through New York and then rode southward to Florida. Going west from Florida they visited the Dallas (Tex.) motordrome and from there rode to Hot Springs, Ark., touring the Ozark Mountains. From Hot Springs they made their way to Denver, trying out the motordrome track in that city. They then proceeded to Los Angeles, stopping at Salt Lake City to ride on the Wandamere bowl. They reached Los Angeles in time to see Humiston in his ride against time. After touring along the coast they returned to St. Louis, where they will remain for the coming riding season.

ROAD INFORMATION

RIDERS from New York to Stamford, Conn., are advised to make a detour at New Rochelle, if going via the Boston Post Road. This detour begins at North street, turning left at the monument and following along to the White Plains Post Road. Take the latter road into White Plains where turn east on Westchester avenue. A detour will be necessary from Westchester avenue a short distance outside of White Plains on account of road construction, but the avenue is again resumed for Port Chester. The Post Road can be resumed thereafter to Stamford. The road is being repaired at Mamaroneck and Rye and the detour along Grace Church street in the latter place is vile beyond description. The Shore Route with Rye and Mamaroneck detours is available for sidecar work, but is very uncomfortable driving.

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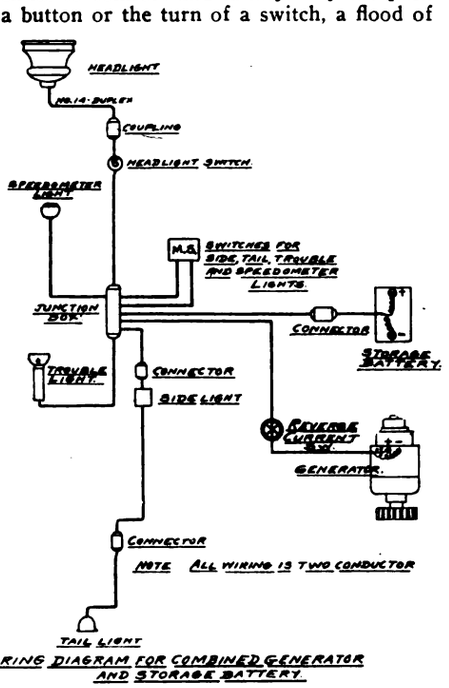
The ELECTRIC BEAM

· WILLIAM · HETHERINGTON · JR ·

LIGHTING systems for motorcycles have undergone radical changes within the last few years. Formerly the veteran rider was fortunate if he possessed simply an oil lamp of pocket-size dimensions to light his way home in the dark. As the motorcycle industry developed to its present high state the means of lighting for motorcycles developed also, until at the present time a rider can be supplied with modern lighting systems that will meet any reasonable demand.

A good light is a dividend-paying investment. One accident due to inefficient lighting will cost more than an up-to-date lighting system. Besides complying with the law, an efficient lighting system gives the rider a sense of security and makes night travel a real pleasure.

An electric lighting outfit on a motorcycle lends refinement and taste to the machine. It also possesses many advantages that are essential to comfort and luxury. By the push of a button or the turn of a switch, a flood of



WIRING DIAGRAM FOR COMBINED GENERATOR AND STORAGE BATTERY

light can be sent streaming down the road. The necessity of dismounting in order to light the lamp is done away with. By the use of adjustable reflectors, any form of light may be obtained, from a broad beam flooding the full width of the road to a narrow pencil of light penetrating hundreds of feet ahead.

FEATURES OF THE SYSTEMS.

Electric lighting gives the rider the choice of three distinct systems, namely: the generator and battery, the alternating current magneto and the straight storage battery system.

(1) The generator and battery system is the most efficient and satisfactory. It operates whether the motorcycle is running or standing still. When the engine is revolving above a certain rate, the battery is automatically charged. It is obvious, therefore, that there is practically no expense for charging the battery.

(2) There are specially-designed low-tension magnetos that furnish lighting current while the motorcycle engine is revolving. When the engine is stopped, current for lights must be obtained from a battery, or combination oil lamps must be used.

(3) The straight storage battery system requires that the battery be charged at intervals from an outside source. The time of charging depends, of course, upon the service demanded from the battery.

GENERATOR AND BATTERY SYSTEM.

The three elements in this system are generator, battery and reverse current switch. Two types of generators are in use, the permanent magneto type and shunt-wound dynamo. On account of the peculiar characteristics of the shunt-wound machine, it is preferred to other types of electric generators. The shunt-wound dynamo gives practically constant voltage over a wide range of speeds. The most essential thing that a dynamo should be is "fool-proof." Many a good dynamo has been put out of commission due to some inquisitive rider's desire to see what "made the wheels go 'round." It goes without saying that the generator should be watertight, impervious to dust and oil and of an enclosed type. At the present time, two types of dynamos for illumination are employed; one type is driven by shaft or belt from the engine-shaft, the other is driven by friction drive from the tire. In sketch "A" a method is shown for mounting and driving the dynamo by belt from the engine-shaft.

The generator should be rigidly mounted so that no possible amount of vibration can jar the generator loose. The belt used is a ⅛-inch round leather belt which should be reasonably tight to prevent slipping. The storage battery is shown mounted on the top of the tank of the machine, this being the most practicable place to store the battery.

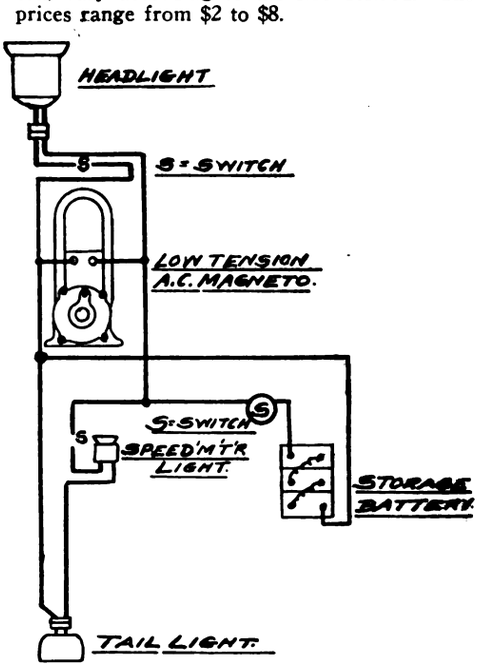
The regular rating of the dynamo is 6 volts at 6 amperes or 36 watts. Of course, there are types of dynamos that vary somewhat from this rating but for standard equipment, a generator of the type and capacity mentioned is recommended. A generator of this size is capable of furnishing current to light the head-light, tail-light, speedometer light and trouble light, also a side light, if a sidecar is employed.

MOUNTING FRICTION-DRIVE GENERATOR.

In sketch "B" two methods are shown for mounting the friction-drive type of generator. It is desirable on some machines to mount the generator on the front wheel, this being the best location. A minimum amount of wiring is thereby needed. This method has the disadvantage, however, of the "light being out" when needed, if the rider has stopped for any reason. The rear wheel drive is best, provided no storage battery is used as the stand can be put down and the engine kept running, thereby driving the dynamo which will furnish continuous light.

The initial cost of a generator and storage battery outfit complete varies from approximately $20 to $35. This includes the generator with governor, storage battery, head-light and tail-light, reverse current switch, necessary switches for controlling the lights, wiring and clips.

If it is desired to purchase the parts of the outfit separately, the generator cost varies from $15 to $25, depending upon the size; the battery about $6 and the prices of headlights, etc., vary according to the size desired. The prices range from $2 to $8.



WIRING-MAGNETO OR BATTERY.

This type of system has been installed to a limited degree. It has certain limitations which are undesirable. One of its biggest drawbacks is that the battery cannot be charged from this type of generator. When the engine is not running, it is necessary to use a hand-operated switch to throw over to the battery. Sometimes a relay is used which automatically cuts in the storage battery when the dynamo stops running. This system possesses an advantage over the straight battery system in that the battery current is only required when the dynamo shuts down.

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Another desirable feature of this form of dynamo is its small cost. The design of the generator is much simpler than the direct current type and the cost is less, being about 80 per cent. of that of the D. C. generator. In sketch "D" is shown a wiring diagram for A. C. and D. C. lighting.

STRAIGHT STORAGE BATTERY SYSTEM.

In utilizing this system, the battery is the sole source of energy. If the battery is used in connection with a dynamo, it should have the same voltage rating as the generator. The system usually employed is 6 volts, the ampere hour rating of the storage battery depending upon the type used. Some batteries for motorcycle use are rated 10 ampere hour, others 15 ampere hour and still others 20 ampere hour. For the non-technical rider it may be well to state just what ampere hour rating of a battery means. If, when all the lights on the machine are burning, an ammeter indicates that they are taking 2.5 amperes, a 10-ampere hour battery will furnish sufficient current for 4 hours of steady light, a 15-ampere hour battery 6 hours of steady light and a 20-ampere hour battery 8 hours of steady light. It is obvious that when using a storage battery alone, it would be the most practicable scheme to get the battery which will give maximum service. The ordinary commercial storage battery has absolutely no place on a motorcycle. The requirements of a battery for motorcycle use are that the battery should be rugged, well-made and that the electrolyte be non-spillable. The jelly type of electrolyte is about the best for all-around use.

The best location for the battery for all practicable purposes is to clamp it on top of the gasoline tank. Other locations may appeal to some riders, but the inevitable "spill" which the most careful riders take, suggests that the safest place for the battery is the location mentioned.

POINTERS ON WIRING.

The success or failure of the lighting system depends upon a satisfactory scheme of wiring. As the voltage used is relatively low, the wires should be large enough to allow for a minimum drop.

The size of wire should be no less than No. 14. Flexible stranded wiring only should be used, so as to allow for vibration. The insulation of the wire should be heavy enough to resist wear and tear, due to abrasions, etc. If the wire used is of a poor quality trouble is sure to ensue, due to grounds, short circuits, etc.; therefore it will pay to wire the lamps in the best possible manner.

In sketch "E" a wiring method is shown which is applicable for a complete electric lighting system, utilizing a direct current generator and storage battery.

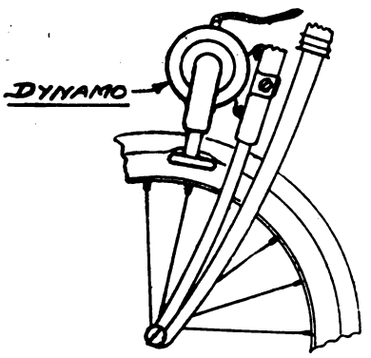
The tail-lamp and speedometer lamp are connected in series so that should either one or the other lights go out, it will be immediately indicated to the rider. Fig. "D" illustrates this. The battery is connected across the line, that is, across the positive and negative wires leading from the generator. Its function is to furnish current when the dynamo is running at slow speed or when the dynamo has stopped running. It is also a voltage regulation. The battery is kept automatically charged by the dynamo during the day or at night, when the output of the generator is not utilized.

The reverse current switch disconnects the generator from the storage battery when the speed of the motorcycle engine falls to such a value that the storage battery voltage exceeds that of the generator. The main function of the reverse current switch is to prevent the battery from running the dynamo as a motor, thereby short circuiting the battery.

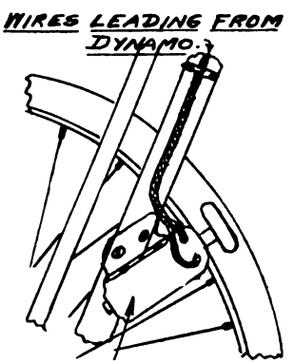
CAREFUL WIRING PAYS.

It is desirable that the headlight be controlled by a separate switch so that the light can be turned off when the machine is standing at the curb. Flangeless connectors are frequently used to advantage. All lamps should be fitted with detachable connectors so as to permit their ready removal for any reason. All splices of wiring should be well made, thoroughly twisted, soldered and then taped. This is a detail which many riders overlook with the ultimate trouble which always arises from poor installation of wiring. The wiring can best be installed by securing it with wire clips to the frame tubing, instead of by screws. In some cases it may be practicable to run the main wiring through the top truss bar of the frame, although this is not recommended. A detachable connector should be provided for the portable lamp which always comes in handy. The portable light can be conveniently carried in the toolbox until required. For convenience in installation and tracing trouble, etc., it is a good scheme to use different colored wires.

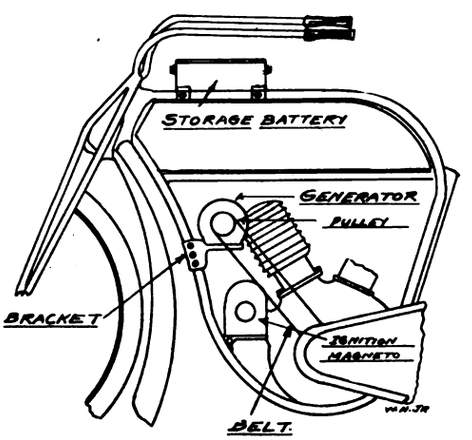
A very satisfactory wiring installation is to install one main splice box or junction box as it is sometimes called. This box can be bought or readily made out of a heavy metal tobacco box. All the wiring can be brought into this box and the necessary tops or splices made. The box can be easily secured to the under side of the gasoline tank where it is out of the way of moisture and most of the dust. The total cost of wiring, clips and connectors will amount to about three or four dollars.



METHOD "C" OF MOUNTING DYNAMO.



DYNAMO MOUNTED ON FRONT FORK.



METHOD OF INSTALLING GENERATOR AND BATTERY.

SIZE AND RATING OF REFLECTOR UNITS.

The head-light is of course the principal lamp, and it should be fitted with an electric bulb of sufficient power to give good light. A 6-volt 1½-ampere Mazda bulb will give sufficient light for almost any purpose. The tail-light and speedometer light should be of 3 volts each (when 6 volts is the source of supply), and the two are in series. The total current consumed by these two lamps connected in series will be .4 amperes. A 3-volt .4-ampere Mazda bulb will give highly satisfactory service used as a tail-light and speedometer light. The trouble-light and side-light should be of about the same rating as the tail-light. These bulbs can be inserted in any standard Edison candelabra or Edison candelabra socket which are fitted to a great extent to electric lamps.

Provided the proper equipment is secured and installed in a satisfactory manner, the electrical system of illumination leaves nothing to be desired. It is the very latest thing in motorcycle illumination and is now a practical proposition, one which warrants the earnest consideration of every rider, whether he be a "boulevardier" or long distance tourist.

WOLTERS TURNS INVENTOR

JOE WOLTERS, of motordrome fame, has turned inventor. He has perfected a machine for use in placing tires on rims, and two of the devices have already been installed at the Excelsior factory. With the advent of the new-style casings and the wide rims, it was found that tire fitting was a time consuming job. By the use of Wolters' apparatus, however, a "tight" casing can be placed on a wheel in thirty seconds.

The wheel is placed in a frame, and by means of a two armed lever which hooks on the axle, the tire is quickly shoved into place, without danger of pinching the inner tube. Wolters is planning to put his machine on the market, it is said, and already one of the tire companies has become interested in the device.

GARFIELD M. C. DANCE

THE first annual reception and dance of the Garfield Motorcycle Club of Chicago was held in Spaulding Hall, 3316 West North avenue, on Saturday evening, April 12.

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Pointers On Maintainmg Electric Efficiency

Practical Hints for the Motorcyclist Who Demands Maximum Lighting Service from An Electric System With Minimum Tinkering—Electrical, Electro-Mechanical and Mechanical Regulating Systems Described

MANY riders who have no knowledge of the "inside" of the generator or battery which they have fitted on their machines for lighting service sometimes wonder why things go wrong and upon attempting to remedy them, make matters worse. A few suggestions for riders as to the method of keeping the efficiency of the electric lighting system up to the standard at which they received the outfit will save many a possible breakdown.

One of the former drawbacks to the use of a dynamo for illumination was the poor regulation of speed. As the motorcycle engine changed speed so did the dynamo, thus producing a fluctuating voltage which caused the lamps sometimes to burn brilliantly and at other times to go dim. This disadvantage has been practically overcome by the use of a regulator which is now furnished with the generator as part of the standard equipment. The rider is put to no inconvenience due to the necessity of having to cut in or out resistance on the lamp circuit, as this is accomplished by the governor.

The regulation of the speed of the dynamo —that is, its capacity to produce a uniform voltage over a wide range of speeds, is accomplished by various methods which may be classified under three groups, i. e., electrical, electro-mechanical and mechanical.

THREE REGULATING SYSTEMS.

The electrical method is to utilize electrically operated devices such as resistances which weaken or distort the field, thereby reducing the magnetic lines of force which in turn reduce the voltage. These comprise the electrical method.

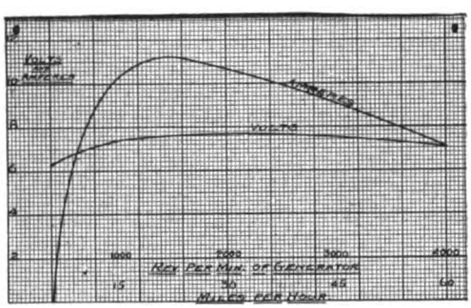
The electro-mechanical devices, as the name implies, employ the two schemes; load regulators in the form of a few turns of wire around the fields in series with the line, are sometimes used. As more lights are turned the field coils produce stronger magnetic flux, hence higher voltage which gives brighter illumination. Centrifugal devices are sometimes fitted which are used in combination with field resistance, thus regulating the dynamo voltage.

The mechanical method is utilized by throwing out the clutch or slipping the belt, thus keeping the speed of the motor at a prescribed minimum. When the generator is shipped from the factory, the governor of any one of the types mentioned, is adjusted so as to give the maximum watts output. Sketch "A" shows performance curves of a governor-regulated generator.

FEW ADJUSTMENTS NECESSARY.

Under no circumstances should the adjustment of the governor be changed, as the average rider has not the facilities for adjusting it. The bearings of the dynamo should be well lubricated with a good grade of oil, and occasionally the commutator of the dynamo should be wiped with a cloth slightly oiled.

If friction drive is used for driving the generator, the steel wheel which bears against the tire should be occasionally examined to see that it is not bearing with too much pressure against the tire. The contact should be only sufficient to drive the wheel. If greater pressure is used, it will not give any better



PERFORMANCE CURVES OF GENERATORS

results and has the disadvantage of rapidly wearing the bearings and tire.

When a generator is driven direct from the engine shaft, it pays to see that the generator has not become loose, due to vibration or because the bolt has stretched, thereby allowing slip in the generator speed.

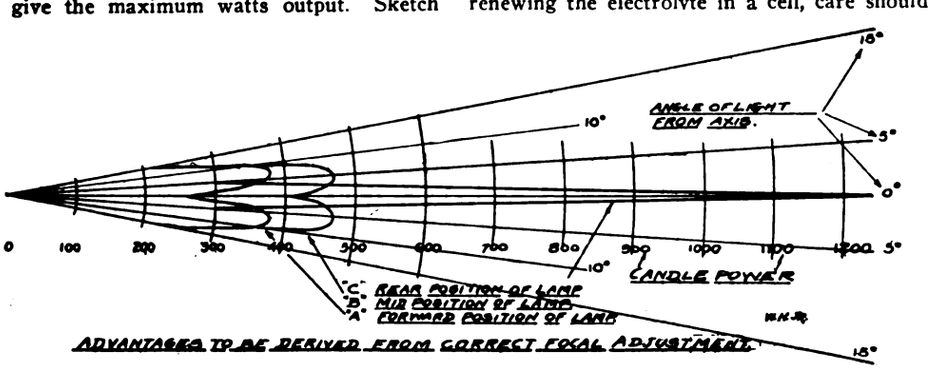
POINTERS ON THE BATTERY.

The efficiency of the storage battery depends upon the care and attention given it. When the electrolytic type of battery is used, the rider should occasionally note the level of the electrolyte in the storage cell. The electrolyte should at all times cover the plates in the cell. It is best to have the solution about one-quarter to one-half inch higher than the plates. There is always a certain amount of evaporation in the cell, and the electrolyte should be renewed from time to time. When renewing the electrolyte in a cell, care should be taken to add pure or distilled water first, and then the acid. The same kind of electrolyte should be put in the cell as originally came in it.

Screw drivers and monkey wrenches should not be placed on top of the cells if the cells have binding posts on top, as these tools, or any other metal, if placed on the battery may short circuit the cell and destroy its usefulness. Contacts will corrode and become tarnished with time. The life and efficiency of the battery depends to a very large degree upon clean contacts.

EFFICIENCY OF REFLECTOR UNITS.

The light obtainable from an electric headlight depends upon three factors; the correct focal position, the character of the radiating surface and the reflector. Maximum illumination is obtained when the electric bulb is at the geometrical focus. This is usually about ⅞ to 1⅛ in. from the reflector in a headlight fitted with a parabolic reflector. If the rider purposes using a headlight in which the electric light fits in a movable socket, the following scheme is suggested to determine the proper focal distance. The lamp should be tested at night and shifted in the socket so as to obtain a far-reaching beam, one which penetrates far along the road. When this adjustment is made the slide in which the lamp moves should be marked so that the same adjustment can be quickly made again. The same procedure should be followed out to obtain a broad beam of light and also a diffused beam. In Chart "B" is shown a set of typical curves of the illumination of a 6 in. electric headlight, fitted with a 6-volt Mazda lamp of approximately 18 candle-power.



ADVANTAGES TO BE DERIVED FROM CORRECT FOCAL ADJUSTMENT

HELPED FLOOD SUFFERERS

DURING the recent flood period in Dayton, Ohio, manufacturers of the city rallied nobly to the assistane of the relief squads and committees and nowhere were there more striking evidences of a fine organization than at the big plant of the Davis Sewing Machine Company, producer of Dayton motorcycles in addition to sewing machines, bicycles and screw machinery. The Davis company was among the first to offer aid to the authorities and in a short time its plant resembled an emergency hospital. Here flood sufferers were cared for in large numbers, and systematic arrangements were made to provide medical service and food. Many boats were built at the Davis plant while the flood was at its height and these were sent out in charge of rescue parties.

The Davis factory was not damaged in any way, but owing to the fact that it was impossible to obtain power for about a week after the water receded the company was unable to make any manufacturing progress worthy the name during that period. As soon as power was available the big organization took up its work where it had been dropped and broke records for activity. As a result the only serious delays are being occasioned by the railroads.

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LIGHTING from the TANK

D·R·HOBART

FOR an ever-increasing number of riders, having the acetylene for the lamps obtainable merely by turning a valve is the ideal method. There certainly is nothing more agreeable than placing a key on the squared end of the valve on a gas-tank and knowing that when you turn it on the gas will come to the burner in a pure form, instantly ready to light. And further, that when you no longer need the light, a turn of the key shuts the gas off at once. There are no after effects, no waste and no care except to put the tank into place and substitute another when the first is exhausted.

The above are the points regarding the use of the acetylene tank or "gas-tank" which appeal most strongly to those who enjoy riding at night, and who make extensive tours. The acetylene obtained from the tank is free from moisture and therefore causes no flicker. With a minimum of care the proper opening of the valve for the best lighting will soon become definitely known to any rider. If the valve is opened too far, the pressure will cause the flame to "sing," and if not opened far enough, there will not be sufficient light for riding. There is no fixed position to which to open the valve; as the pressure is reduced, it will be necessary to give a slightly greater opening, until when the tank is nearly empty the valve will be opened quite wide.

THE TANK AND ITS CONTENTS.

The gas-tank is a strong steel cylinder containing a fibrous material into which is put acetylene dissolved in acetone or some like substance, so that the contents will be liquid, saturating the fibrous material. Acetylene is a *gas* in its natural form, and so emerges at the tips of the burner ready for use. The cylindrical tank needs to be strong, as the pressure is generally in the neighborhood of 250 pounds to the square inch in a newly-charged tank. They are perfectly safe; the writer has good proof of this, having recently seen a fresh tank dropped onto a stone curb without even denting it. The gauge at the opposite end to that carrying the valve indicates the pressure on the gas which remains in the tank, and thus shows when it is desirable to have the tank recharged or exchanged.

For a solo machine, there are a number of locations adopted for the cylinder; on the top tube, on the fork, on the front mudgard, across the handlebars or across the rear of the carrier. The writer favors the top tube location, just back of the steering-head, as the most convenient. It is easier to run the tubing to the headlight and tail-lamp along the top of the motorcycle tank when the cylinder is thus fitted, and in case of a fall the gas tank is protected from shock. The forkside position gives an overbalance on one side of the machine; the load on the front mudgard is rather too great to warrant the tank being placed there, and the luggage carrier location has the tank out of sight and projecting at each side rather too much. The handlebar position on some machines does not help the steering, and gives too much bend to the tubing. For sidecar work, the gas tank can conveniently be fitted under the body on the chassis, or on the rear tube when no luggage is carried. A position along the side-bar of the sidecar frame is out of the way for the rider has to look at the gauge upside down, which is not at all convenient at night.

SOME BURNER TIPS.

A great deal in satisfactory acetylene lighting depends on the care of the burner. The chief troubles with this light-giver are carbonizing and choking. Carbonizing is due to riding with the flame turned down too low so that carbon is deposited in the orifices, gradually reducing the size of the flame. Choking, due to moisture or dampness, is rare with a gas-tank, but may be met with where recharging has not been properly done. It is somewhat too common with generator lighting, unfortunately. Another trouble due to turning the gas down too low is the destruction of the burner tips. Turning the gas too high will eventually crack the reflector, and is thus an expensive practice. To moonlight can be charged quite a number of cases of cracked reflectors, as in such light no lamp seems to burn brightly. Giving the tubing a blowout with a bicycle pump or with the breath does no harm occasionally, nor does passing a lighted match along it to see if any leaks have developed.

Riding in fog is not desirable, but is occasionally necessary, and here is a lamp wrinkle for foggy weather. Tilt the lamp downward as far as possible without endangering the reflector, or diverge the light downward by means of a sheet of cardboard or paper, bent over the top of the front glass carrier. The rays from an ordinary lamp, rising upward interfere with the view to the front, and by cutting off these rays the road is illuminated in spite of fog. Probably most riders know that a handkerchief tied over the front of the lamp will replace temporarily a broken front lens, but this tip is here given for the benefit of those who have not as yet had much experience in riding by night.

Two Harley-Davidson Enthusiasts.

BALTIMORE BREVITIES

BALTIMORE, MD.—Bad weather put a crimp in the plans of the Maryland M. C. last Sunday, and the proposed run to Annapolis had to be called off. The attendance contest has been continued for this year, and gold, silver and bronze medals will be awarded to the winners. The membership campaign goes merrily on with 126 riders now in the fold. Local Commissioner W. E. Baker, of Westminster, is endeavoring to induce the motorcycle club there to affiliate with the Maryland M. C. and the F. A. M.

The Iroquois M. C. has just been organized here, taking its name from an old cycling organization. Its first run was to Hanover, Pa., and was made in record time. The officers are Sydney Goldenberg, captain; Joe Rosenblatt, first lieutenant; Sylvan Godman, second lieutenant; Sylvan Gusdorff, color bearer.

Since adopting the two-wheeler as a means of transacting his business, Charles Putts, chief inspector of plumbing in the Health Department, has made a fine record in his office.

A sprained ankle has prevented Casper French, head of the Washington branch of Howard A. French & Co., from enjoying his new Indian and he is far from pleased with his predicament.

Having retired as champion of Maryland, "Chic" Thomas has shown that he is a first rate motorcycle salesman, and since taking his pad in hand has pulled down many orders.

With 157 trial runs to his credit without an accident, "Happy" Mears has become the champion demonstrator in this city.

Determined to become the king of the road in this section, "Boots" Reuschling has been cleaning up everything in sight, and it is predicted that he will also seek honors on the track this season.

Owing to pressure of business Howard A. French found it unable to attend the directors' meeting of the F. A. M. at Chicago.

JOHNSON TO MANAGE STADIUM

AT a meeting of the Stadium Motordrome Company, of Riverview, Chicago, the following officers were named: William M. Johnson, vice-president and general manager; M. F. Bramley, president; J. F. Heade, secretary-treasurer, and J. H. Smith, secretary.

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GETTING RESULTS from the GENERATOR

by STANLEY ROSEBERRY

RANGING from the 3-inch glorified bicycle lamp up to the huge searchlight originally intended for a light automobile, the acetylene lamp is to be found on all but a small number of motorcycles today. Most of the others are equipped with electric lighting or use the kerosene lamp for various reasons, but as at present constructed acetylene lamps give satisfactory light for riding at any speed over average roads, and resist vibrations that might destroy a lamp filament or extinguish a kerosene flame. It is the generator-fed lamp that the writer thinks the most desirable for use with either the solo machine or the sidecar outfit.

WHERE THE TYPE SCORES.

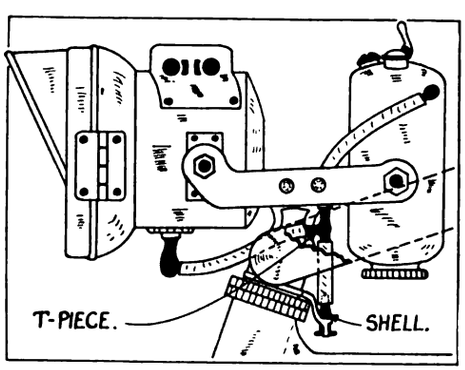
THE generator-fed lamp carries the two elements of acetylene (water and calcium carbide) separately in a relatively light casing which can be placed without inconvenience to the rider almost anywhere on the machine, when the generator is separate from the lamp. The production of acetylene begins as soon as the water is in contact with the carbide, and light can be obtained at the burners within a few seconds after the gas has passed through the tubes from the generating chamber. The necessary elements are obtainable anywhere, and material for an almost indefinite number of hours of light can be carried in small cylindrical sealed cans. There is no gas under pressure except when the apparatus is generating, and a proper-sized generator can be used for feeding the complete lighting system and even a sidecar, when a passenger outfit is driven.

The writer never has favored the combined generator and lamp. There usually is no trouble with the lamp portion of the outfit, but such has not been his experience with the generator portion. The first experience was with a set of Ducellier automobile headlights, which were corkers for light, but which needed two hours to the pair for cleaning out the lime-deposit with scrapers. Subsequent hard labor with motorcycle lamps of the combined types in lime scraping did not result in creating ardent affection for them, and it must be confessed that they were unsatisfactory, compared with the products of the present day. It always seemed that a combination lamp was fitted with only a compromise in the shape of a generator, and the latter usually acted badly, and might be lost on the road through an inefficient joint loosening or parting entirely.

THE SEPARATE GENERATOR.

With the separate generator the proportions are much more generous, and it can be easily cleaned. As mentioned above, it can be placed at any convenient part of the machine and connected to one pipe which is forked to lead to any number of lamps within the capacity of the generator. The main choices of position are: on the top tube back of the steering-head; either front forkside; and the right side of the rear stay. The writer prefers the first position for several reasons: when a fall occurs the generator is not affected; it is right under the hand for regulating when necessary, and the bottom cannot get away if it should happen not to be properly fastened on. The forkside position is good, but a flat fall may bring the apparatus off the clip and the rider will then be forced to make a "jury-rig" on the top tube for the generator. The stay position is good, too, but if the carbide is impure, the tarry water will run back into the chamber and when dry a cold chisel will often have to be used to cut the cake away.

A combination lamp and generator bracket can be made up from two lamp-brackets or by a blacksmith, and there is a little non-spluttering stunt that the writer has had fitted which is worth copying. Some kinds of carbide are pretty tarry, and carry a little dampness over into the burner pipe with the gas. This damp vapor causes sputtering, but being somewhat heavier than the acetylene, can be trapped off at a low point in the pipe. The wrinkle is to use a "cross" or "T" in the rubber tube line between the generator and lamps; the cross when a tail and head-light are used and the T when a headlamp only is fed. The lower arm has fitted to it a short piece of tubing whose other end fits over the mouth of an empty 22-calibre shot-cartridge. The latter is fastened to the steering-head and moves with the whole outfit. At the end of a week's use the cartridge shell is removed and cleaned, if necessary, but usually, the shell will go for nearly a season, after which it can be thrown away and another fitted. The arrangement is shown in the figure. Water collects in it and this can be emptied as often as desired



Simple Method of Fitting Drain System to Prevent Sputtering of Light.

by the rider. Some sort of a drain should be fitted to all acetylene outfits, anyhow, and the big lamp men specify such an arrangement for automobile and stationary acetylene work.

SOME GENERATOR TIPS.

An acetylene lamp that is used only occasionally really should have more attention than one which is used every night. Lots of riders look on a generator as trouble in a nickel case, but the fact is that they are the ones that bring the trouble on themselves. If the water in the tank is kept as high as possible when starting out and renewed for each trip, that part of the generator will be kept in good condition. This means opening the drip valve full and draining the old water off.

As regards the carbide chamber, after turning off the water before stopping for the night, remove it and let the waste carbide or lime get dry. Remove the basket and empty the chamber; scrape off the sides and then wipe everything dry. Sift the carbide in the basket, put in new carbide and reassemble the generator. Finally fill the tank with water. If the above is followed, the lamp is ready for use as soon as the water is turned on and will have a good flame. The whole operation in dry weather should not take five minutes, and the machine can be put away while the carbide is drying. If the lamp is not going to be used soon again, it is cheaper in the long run to throw away the old carbide and use a fresh charge.

REGISTERED REPAIR SHOPS

AMONG the latest repair shops registering with the F. A. M., as reported by Secretary Gibson, are: Ex Motorcycle & Supply Company (B. K. Bering), Houston, Texas; Syracuse Motorcycle Company (W. B. & C. B. Dounce), Syracuse, N. Y.; C. G. Odell, St. Johnsville, N. Y.; Phillips Brothers, Tonogany, Ohio; Harley-Davidson Sales Company (A. G. Wagner), Celina, Ohio; The Cyclery (C. S. Williams), Mason City, Iowa; A. N. Pierce (R. G. Pierce), Greenfield, Mass.; R. C. Smith, Burt, Iowa; C. B. Schnepfe, Havre de Grace, Md.; P. J. Maley & Co., New Haven, Conn.; Willock & Hord (E. W. W. & B. H.), Campbellsville, Ohio; G. W. Hunter, East Chicago, Ind.; J. D. Bingham, Greenville, Ohio; A. C. Englar, Westminster, Md.; Strant & Mangan (Ralph Mangan), Minneapolis, Minn.; J. W. Blackburn Garage Co., 15 East Main street, Salem, Ohio; C. B. Morgan, 143 Whitaker street, Savannah, Ga.; Mark J. McCann, 92 Gorham street, Lowell, Mass.; Gomer H. Jones, 220 South Front street, Mankato, Minn.; Wald Mfg. Co. (E. D. Pawsat), 317 North Eighth street, Sheboygan, Mich.; Riverside Motorcycle Garage (G. E. Wood), 533 West 110th street, New York, and Condra & Lindgren (John C.—Alfred H.), 609 Michigan avenue, LaPorte, Ind.

ELGIN REGULATIONS O. K.

WHILE he was in Chicago for the F. A. M. directors' meeting, Chairman Thornley, of the Competition Committee, went over the regulations which have been drawn up for the proposed national motorcycle races at Elgin next July 4, with Chairman Hill of the Chicago Motorcycle Club's Contest Committee. Dr. Thornley is said to have placed his stamp of approval upon the rules.

The Chicago Club will hold another popular stag party at the new clubhouse, 3518 Ellis avenue, on Saturday evening, April 26.

The basement of the new premises is being fitted up for a garage.

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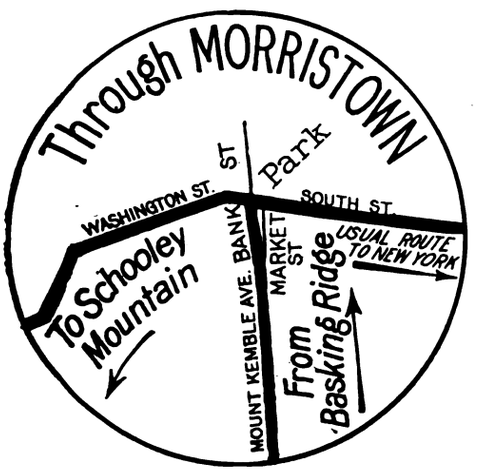
Mapping An All-Jersey Endurance Run

How a Few Rough and Hilly Stretches May Be Combined With Some Fine Roads and Others Fairly Good to Afford an Interesting Two-Day Trip That Will Satisfy Both Veteran and Novice

By Robert Bruce.

NEW JERSEY has such a widespread reputation for good roads (starting, of course, from the other side of the Meadows), that laying out a route for an "endurance run," wholly within the borders of that State, seemed at first more of a task than it finally turned out to be. Some skeptical ones said that it couldn't be done—that there wasn't a



Coming Up to Morristown From Basking Ridge, Turn Left on Washington Street for Schooley Mountain and Easton.

mile of really tough road in Jersey, suitable for any real test of reliability. But in the several years that I had traveled in and about the metropolitan district, I had sought out the worst as well as the best, and so had both kinds to draw upon in such an emergency.

After I had prepared this map, and several of my motorcycle friends had tried it, there were no further doubts or questions. The reader should bear in mind that this is not supposed to be an ordinary tour, but a combination of mostly good with some bad roads—fit for an endurance run, or other unusual trip. There is nothing dangerous about it, and anyone who likes to make occasional journey's "out of beaten paths" would be quite sure to enjoy it.

OVER SCHOOLEY'S MOUNTAIN.

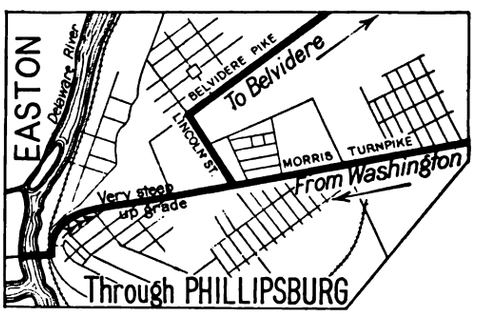
For variety and scenery, at least, it cannot be beaten in New Jersey, including—out-bound—a fair ride from Jersey City through the suburban district, and a short southward detour from the direct road between Chatham and Morristown to dip down into the picturesque Passaic River valley, and pass through historic Basking Ridge. Beyond Morristown there are many miles of gently rolling lands, with just one interruption across the western part of the state to Phillipsburg on the Delaware River. That one interruption is Schooley's Mountain, between German Valley and Washington; this requires a stiff climb and a corresponding descent—neither very bad, though there are a couple of curves which need to be taken with care.

Now a pleasant surprise awaits one who may be making this trip for the first time; by taking the first left-hand road beyond Schooley's Mountain, you travel exactly a mile to a connection with the Hackettstown-Phillipsburg state macadam. Turn left and—so far as the road is concerned you may "beat it" all the way through Washington to the Delaware River; only be careful of a steep winding descent through Phillipsburg, that is, presuming you ride across the fine strong bridge into Easton, Pa., a total distance of 83½ miles, to which the Passaic Valley detour has added about eleven miles to the standard short line.

So far is just about a good half day's run from Jersey City, and it is worth while to go across to Easton for lunch, where two good hotels will be found. That would be at most only a slight departure from the "all-Jersey" idea, as the trip would be resumed at any point determined upon in Phillipsburg, and a northward turn made a short distance east of that city on a surprisingly good country road that leads up through the small village of Harmony to Belvedere. Pass through this quaint old city onto the state road through Bridgeville and Buttzville.

A PICTURESQUE STRETCH.

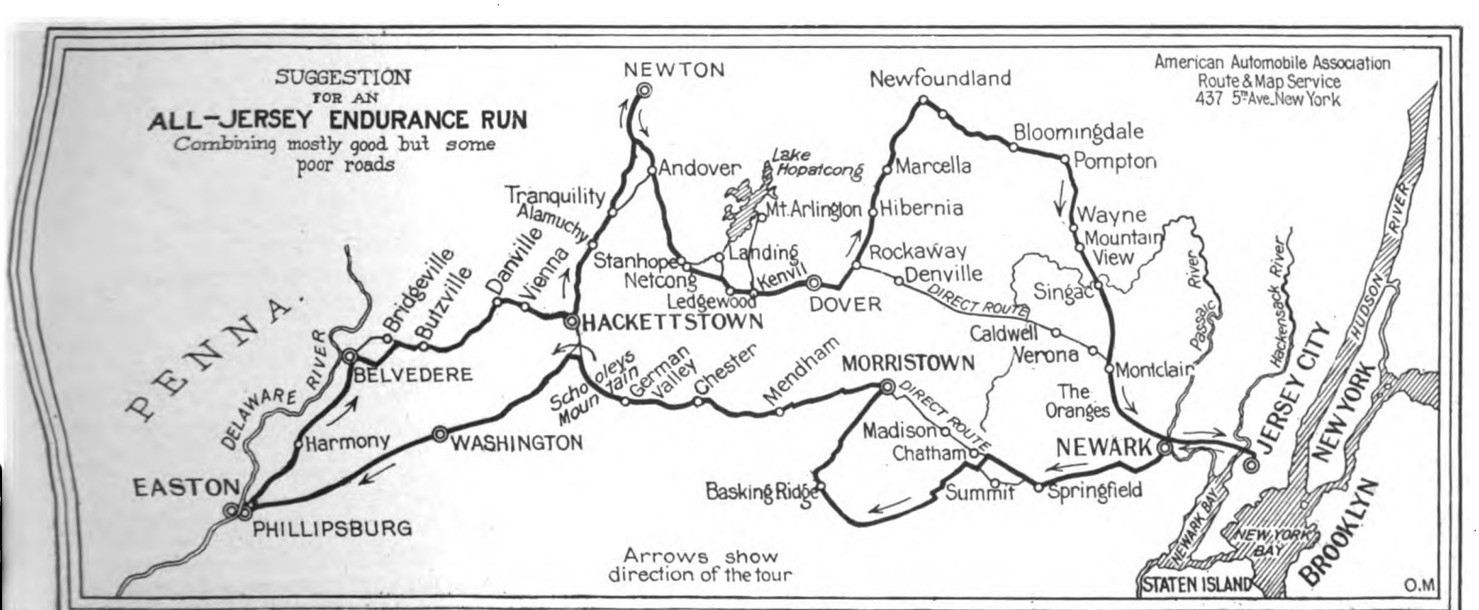
Now you ride for a few miles along the lowlands on the north side of the Pequest river, where in wet weather the roads are apt to be soft and sticky; then comes another



Showing the Way Into and Out of Phillipsburg and How to Negotiate the Important Turn for Belvidere.

improved stretch leading through Danville and Vienna into Hackettstown, 29 miles from Easton. Here, at the American House corner, a sharp left turn is made on one of the most picturesque but little traveled roads in New Jersey—through the hamlets of Allamuchy and Tranquility, and passing a trifle to the west of Andover into Newton. The road is good throughout, with now and then a stretch of gravel or macadam.

Newton is only 44-8/10 miles from the Delaware River—hardly enough for an afternoon's ride in an "endurance run"; so the way in is reversed out of Newton, but at a promi-



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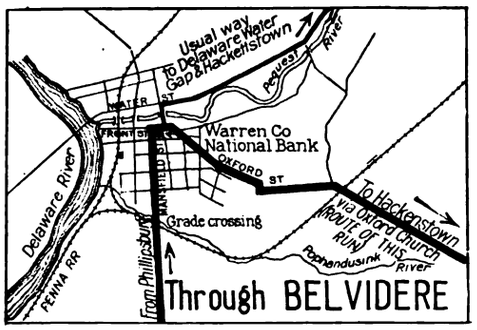
nent fork a short distance beyond keep to the left, passing the road used on the up-trip. The main highway continues past Cranberry Lake station into Stanhope, thence through Netcong, Ledgewood and Kenvil to Dover, 20-8/10 miles from Newton, or 75-6/10 miles from Phillipsburg. This is a fair afternoon's ride, and 159-1/10 miles for the day, from Jersey City; another reason for selecting Dover for the night stop is that while the hotels there are nothing to boast of, they can take care of a crowd better than any other places in that vicinity.

The one real tough stretch on the trip is reserved for the morrow, for after continuing on the good road to Rockaway, you leave the regular line back to New York by turning square left at the center of Rockaway, crossing the M. & E. Canal. This is the beginning of a trip that probably not one in a hundred tourists in the metropolitan district has ever made, for it strikes due north into the rough country. It passes through the settlements of Hibernia and Marcella, both of which look as if they had been lifted from the wilds of Nevada or Utah and set down in northern New Jersey.

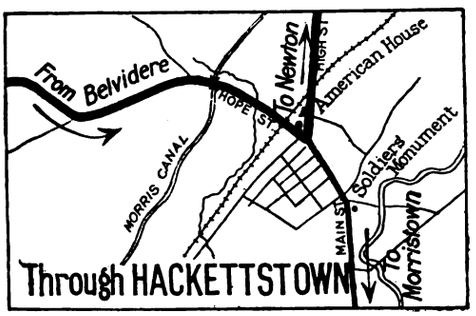
ANOTHER MOUNTAIN CLIMB.

Just beyond Hibernia the road passes extensive fields of stone on the right and left, apparently as they were left by a glacial movement of long ago. Farming seems impossible, which naturally accounts for the sparsely settled country. Gradually the road becomes rougher, and even more neglected; sometimes the trail is almost lost in the woods, though the way always opens up as you proceed. Now comes the long, gradual ascent of Copperas Mountain—on which there are enough waterbars to remind one of some old-time roads in western Pennsylvania. As if to help compensate for its roughness, there are more fine views than you could get on the better-known roads in that part of the State.

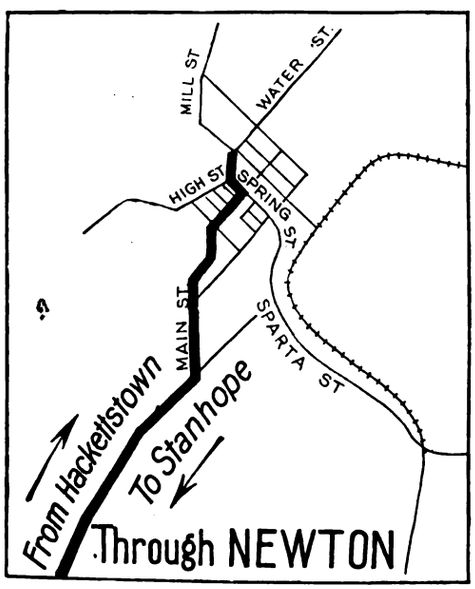
Five minutes more and the tourist is in Newfoundland, on the regular route from Milford or Dingmans Ferry to New York, and the poor roads are past. Turn right and follow the main-traveled highway through Bloomingdale to Pompton village, where the travel divides into two streams—one by Paterson and Hackensack, and the other through Wayne, Mountain View, Singac, Montclair and the Oranges back to Jersey City. Our "endurance run" route takes the latter alternative, which gives an excellent road practically all the way. The distance from Dover to Jersey City by this roundabout but interesting route is 53-9/10 miles, which under ordinary circumstances can be made in a short half day, including the rough road over Copperas Mountain.



Making the Turn at Belvidere for the Run to Hackettstown.



This Route Goes Through and Returns to Hackettstown, Using in All the Three Principal Streets of the Village.



Entering and Leaving Newton, the Turning Point on the Trip, Over the Same Streets.

Board Track Speedsters Are Plentiful

THE magnates in control of the "American League of Professional Motorcycle Racing Clubs" declare that practically every state in the Union is represented by the applicants for positions on the various teams which will represent the cities in the circuit this summer.

The fact is that so many applications have been received from state champions, would-be stars, etc., that preparations are being made for the establishment of a training camp in St. Louis as well as Cleveland, to take care of the army of recruits from the South and Southwest. Several of the riders have already started for the Cleveland camp on their machines from distant points. A rider named Good started out from Oklahoma about April 1 while Birnley, of Buffalo, S. D., also set out on his machine about the same date.

Announcement has been made that Joe Wolters, of Chicago, will be the probable choice for the captaincy of the Chicago team and other appointments will probably be made as follows: Captain of Detroit team, Wiley Gibson; Captain of Cincinnati team, Russel Smiley; Cleveland captain, Brownie Carslake; St. Louis captain, Farmer Standen, the Iowa record chaser.

The Milwaukee motordrome has been formally admitted to membership in the League. The promoters in that city have organized a $20,000 stock company and have been able to supply the best of references. The erection of the Cincinnati track has been delayed on account of the flood, and it is possible that the opening in that city will have to be postponed. The work of reconstructing that portion of the Chicago saucer which was blown away by the tail-end of the Nebraska cyclone is progressing, but the work is far from completed.

The League has decided to offer a $500 purse to be divided among the three best scorers during the season. An account of the winnings of all riders in the League will be carefully kept, and the trio of greatest point winners will split the purse. This will be in addition to the prizes offered during the season.

REPORTS FROM ABROAD

THERE was a large increase last year in the importation of motorcycles into Italy. The latest returns available are for the eleven months ending with November last, during which period no less than 1,402 motorcycles were imported, as against 699 in 1911.

From Belgium come reports of greatly increased exports in motorcycles as well as a notable advance in imports, particularly of British machines and parts.

Swiss importation of motorcycles for the first nine months of the last year showed a marked increase over the corresponding period in 1911, while, on the other hand, there was a falling off in the exports.

Late reports from Japan are to the effect that the motorcycle is rapidly coming into its own in the realm of the Mikado. The Japanese Automobile Club has launched a movement looking to the improvement of the roads of the country so that they will all be suitable for motoring, and as a result dealers in motorcycles as well as automobiles are feeling a trade impetus.

SOME INTERESTING FIGURES

IN a recent issue of *Southern Motoring and Good Roads* appeared the following paragraphs which drive home the road improvement argument with unusual force:

"Of our 2,300,000 mile of highways in the United States, less than 300,000 are improved, and these only partly so. It costs our farmers more to haul a load of wheat ten miles to the railroad than to ship it from New York to Liverpool.

"National highways 50,000 miles long at the high figure of $20,000 a mile would cost $1,000,000,000—a lot of money! But the annual saving would be over $50,000,000—or only twenty years for such savings to pay for them. But improved roads increase farm values within one mile by $5 an acre. Such a system of national highways would add not less than half their cost—or $500,000,000—to farm values.

"Should the remaining 2,000,000 miles of highways cost $5,000 a mile to improve, their total cost of $10,000,000,000 would be saved in seven years, and the increase in the farm land values would be $12,800,000,000, or more than enough to pay their cost."

A SOCIABILITY run to Sterling was recently held by the Hutchinson (Kan.) M. C.

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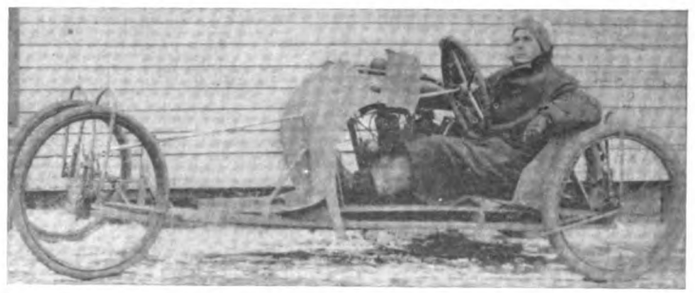
A $1.00 CYCLE CAR

By EARL · F · RUDIN



[F motorcyclists in general feel as I do about the sport and the inducements it holds out am quite sure that the low-priced cyclecar vill come in for some attention within the ıext year or two, and that this will be brought bout without detracting from public interest ı the motorcycle. The motorcycle will con-inue to forge into popularity regardless of all ıe four-wheelers that may be placed on the ıarket, so that there is no cause for worry in ıat direction. I own what my friends have een kind enough to call a cyclecar, and I am ill a full-fledged motorcycle enthusiast.

To begin with let me state that I spent just inety-five cents to transform an old motor-cle into a cyclecar; I had nearly all of the ıaterial of course, and the ninety-five cents is ıe money actually expended. I bought my st motorcycle about five years ago. The st wages I earned went to buy it, and I feel at I got my money out of it half a dozen mes over. In time I knew that machine so ell that I could almost take it apart in the ırk and put it together again. Soon loop ames came into style and I remodeled my ıs to keep abreast of the fashion. As time ent on I acquired other motorcycles, but I as never entirely satisfied and I spent most my spare time tinkering with the mounts.

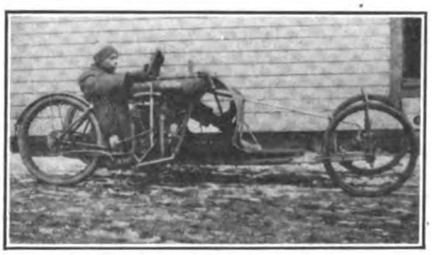
A YEARNING FOR DIVERSITY.

Last season I purchased a new Indian twin d found that it gave me no trouble. I was isfied with the machine, but I wanted some-ng to tinker with and when I saw pictures

Viewed from the rear.

1913 foreign cyclecars an idea began to take m in my mind. I had made an unsuccess-attempt to build one three years before, but I gathered more information about them I ame convinced that I could make one that ıld run. I laid my plans as much in detail possible and one memorable day I started -k on the new outfit. In a week it was shed, and the accompanying photographs show how it looked when I took it out on the road. I do not claim that it is a thing of beauty, for it is not, but it gets over the ground like a scared rabbit and that repays me for my trouble. My friends poke fun at me because of the appearance of the outfit, but they are glad to ride in it when they want to reach some point in a hurry. What's more it is quite comfortable.

The method of transforming the motorcycle into the cyclecar was very simple. The pic-



Note position of motorcycle frame.

tures will show that the outfit is nothing more than a roomy sidecar with two wheels in front to give additional stability and easy traveling. You will note that the frame of the motorcycle has been left intact, and with very little difficulty I can change it back to a single-tracker when the mood seizes me.

The steering wheel was obtained from an old toy express wagon and the front wheels were taken from a bicycle. They are fitted with clincher tires. The left rear wheel was originally the front wheel of the motorcycle, and the original rear wheel of the motorcycle is retained without change, to deliver the drive. The steering knuckles were made from gas and water pipes.

AN INGENIOUS CONTROL SYSTEM.

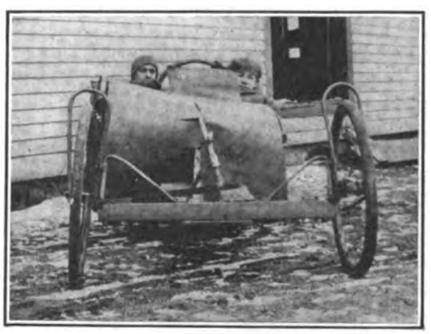
The brakes and the throttle are controlled by the feet, a magneto cut-out is fitted on the steering wheel and the clutch and change speed levers are operated by the right hand as shown in one of the photographs. The spark is always set and the motor is started with the Indian kick-starter so that the driver is not compelled to leave his seat. One of the pictures gives a good view of the rear braces and shows the method of attaching the motor and rear wheels to the frame of the machine. The frame is built as low as possible to assist in getting speed, and only about nine inches of clearance is allowed. A satisfactory springing effect is obtained by using two 3 by 1 inch boards and having a fulcrum which may be set to suit the rider. The spring-board and fulcrum may be discerned in the picture which shows a rear view of the outfit. The buck-board effect also helps in the springing and, all in all, I find that few shocks worthy of the name are transmitted to the driver's seat.

The machine weighs a trifle over 300 pounds and is capable of making over 50 m. p. h. It has carried two 150-pound riders up most of the hills in the vicinity of Dalton, Mass (my home town), on high speed (4½ to 1), and I have never yet struck a grade on which it would not make progress on low gear—as long as the driving wheel could find traction. My home town is in the heart of the Berkshires and we are well supplied with hills, so that the outfit has been pretty thoroughly tested.

A HANDY OUTFIT IN TRAFFIC.

The tread of my cyclecar is only 3 feet 8 inches, and I was surprised at the ease with which I could operate in traffic. I can turn across car tracks or get around a team with remarkable facility, and I am not in the least afraid of a spill. I sometimes whirl about in city streets with a good deal of power on. I have not found that the steering is seriously affected by driving with all the power applied on one side, but I would not advise anyone to copy this design for permanent service as the strain is too heavy on the driving wheel in turning corners, etc.

My experience with sidecars has been limited, but I must say that I cannot enjoy a



The crude but effective windshield.

motoring trip fully unless I have somebody beside me to talk with. My ideal outfit for passenger-carrying would be a quad, with a high-powered, two-speed twin motor set forward and connected with both rear wheels by shaft or chain drive. I would also have the body of fore-door design to keep out dust. If a machine along these lines can be manufactured at a motorcycle price and run with motorcycle efficiency I will buy one on sight, but I must admit that there are serious obstacles to be overcome before such a machine will be developed, suitable for our roads.

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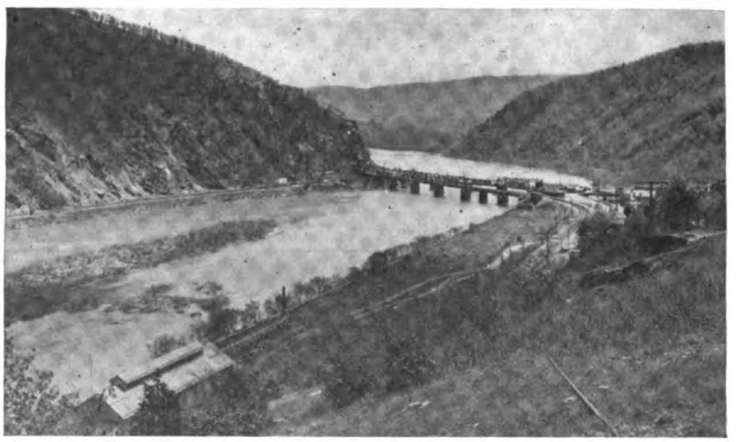
A TRIP to the NETHER WORLD

by C·H·CLAUDY

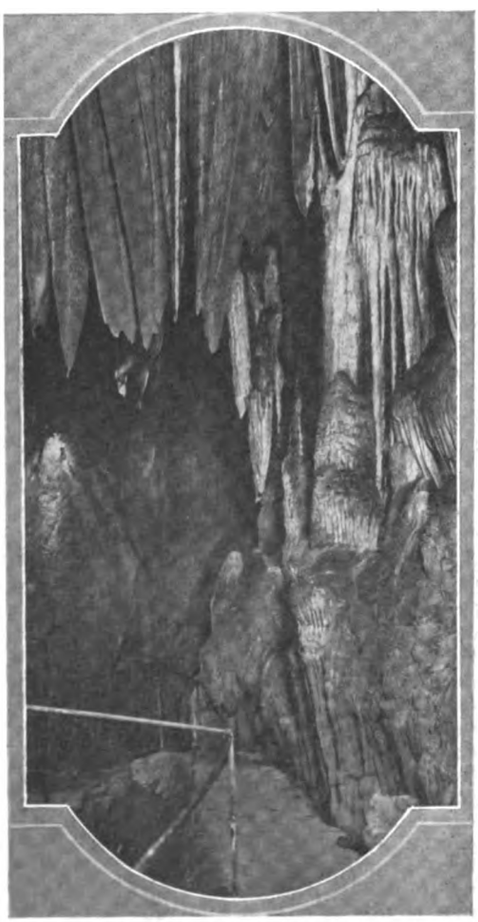


WHEN we speak of a tour by motorcycle to the nether world we may give the impression that an open-muffler fiend has had a spill or something of the kind and been called off to get what is coming to him in a region of brimstone, but this is not necessarily the correct idea; we may, for example, be speaking of the Caverns of Luray, in Virginia, and in this particular instance we are. The Caves of Luray are just about as wierd and mysterious as any section of the nether world can well be, and besides after visiting them you can come back. There's an advantage in that.

Seriously, though, the Caves of Luray are among the most remarkable of natural wonders, and they are so situated that the motorcyclist can reach them over good roads and through a section of the country that holds out many scenic inducements. With the exception of the last thirteen miles of the journey the roads are excellent, and these last miles are not so bad that they need cause a tourist serious trouble.

It matters not what caves and underworld caverns you may have visited—not to have seen the Luray Caves is to have missed some of the best the world has to offer. Nor is there much use in attempting to describe them in advance, for what you will see when you go was not intended to be described in any known language. You can say it is marvelous, stupendous, peculiar, strange, mysterious, beautiful, terrifying, magnificent, grand, awe-inspiring—and tell little more than if you had not spoken. You may talk at length of dimensions—of three miles of subterranean splendor, of huge columns sixty feet high or as many feet thick, of deep chasms and lofty vaulted roofs, and still convey only a faint idea of what you will really see. And, indeed, you can look at the photographs accompanying this article and still have no real idea of what is before you. For the photographs lack perspective and color—they lack the suggestion of vastness and the echoes, they lack the soft, scarcely heard drip—drip of water which is the Master Builder at work on his never finished temple beneath the sod; yet the photographs are good ones. So, since words cannot describe it, you will have to take it on faith that what you are to see at your journey's end is at least well worth seeing, and start with that understanding.

It matters but little from which point you start. All roads that go to Luray lead to the Shenandoah Valley Pike—or at least, all roads fit for the motorcycle. So to Harper's Ferry, West Virginia, you go first; and whether from Baltimore, Philadelphia, or Washington, you find the roads to that point, if not all that could be desired, at least sufficiently hard and smooth to enable you to make a comfortable fifteen to twenty miles per hour. My own trips have all started from Washington, D. C. Sometimes they have been out through Rockville and to White's Ferry, where the Potomac is crossed in an ancient, flat-bottomed ferry-boat, at the other end of which is but a mile or so before the Leesburg Pike is reached. Sometimes my runs have been out the Seventh Street Pike to Olney, then by way of Damascus and Laytonsville, to the old Baltimore Pike. These are good dirt roads in dry weather, but after rain; you know what rain does to dirt? Enough said! This is the shortest route—from my note book I copy the following:



Distances: From Washington to Rockville, 14 miles; to White's Ferry, 37 miles; to Leesburg, 45 miles; to Bluemont (Snickers Gap), 62.5 miles; to Berryville, 75.5 miles; to Winchester, 82.5 miles; to Woodstock, 112 miles; and to New Market, 131 miles. Luray is only 13 miles beyond, a total of 144 miles from Washington.

The Baltimore Pike leads on to Frederick, and here one can take a left turn and make quicker time to Harper's Ferry. But the temptation to follow the Pike over the mountains to Hagerstown has always been too strong to resist, and if a little longer, the journey is most pleasant and the scenery, particularly when the mountains (Braddock Heights) are beneath your feet, is beautiful in the extreme. Hagerstown is a good place to spend the night and make a two-day run of it, for from Hagerstown to Harper's Ferry, via Antietam, and down the Pike to New Market, is neither a long nor an arduous journey.

IN THE SHENANDOAH VALLEY.

You will find the famous Valley Pike a fine, hard, macadamized road. Although repaired at times by the barbarous practice of dumping new metal upon it for the wagons to grind up, the single tracker can usually find a path around such excrescences while the automobile, with its cursing driver, must drive straight through and take his chances with his tires. Toll gates are found about every five miles, but after you have become accustomed to the ceremony of signing the book and paying a few cents and having your number taken and a few other little things like that, the gates become mere flea bites of trouble. For the Shenandoah Pike is historic, and as you "phut-phut" down it you will see everywhere the ghosts of men in blue and men in grey who laid the valley waste and fought up and down every foot of it—at least, if you are at all romantic.

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Town after town is left behind. Beware that the promise of a smooth road and no hills to speak of for a straight hundred miles, does not lure you past New Market and on to Staunton. For at New Market you turn sharp to the left and prepare for the climb of the Massanutten mountain, which has been looming for some time to your left.

Now—let there be no bones made of it—this is "some climb." The single-cylinder rider had better leave his machine at the hotel and drive over or prepare to help it up some of the steep places. The skillful rider of a twin should negotiate every rise without difficulty. You climb a fairly good-sized mountain over a tortuous road, and for four miles or more you and your machine are going to be more or less in misery.

Just one warning—don't try it at night. It's all right going up; you won't go fast enough while climbing to be in danger, but the descent on the other side is very steep, and while not at all dangerous in daylight, it is best not to attempt it after dark even with a powerful searchlight.

FORMATION OF THE CAVE.

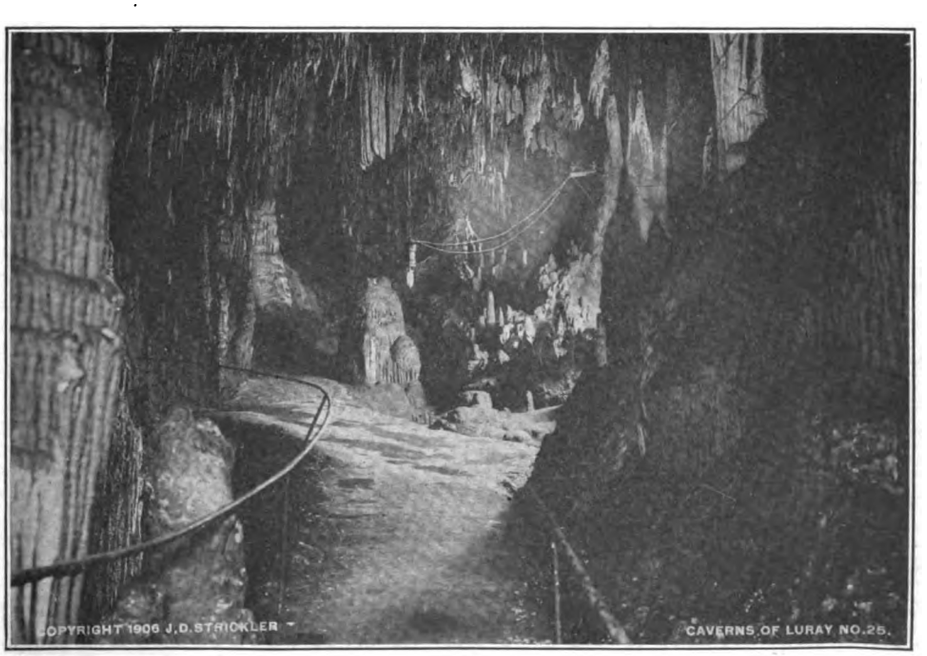
Once down on the other side you have a dirt and rock road, typical of Virginia, for a few miles, and then there is another ferry to cross. One mile before you come to the town of Luray, you see a sign: "Caverns of Luray," and here you make a sharp left turn, and draw up before a gateway beyond which is the modest whitewashed stone house that guards the entrance to the cave.

I have said that the cave cannot be described, so I shall not try to describe it except to speak of the wonderful way in which this natural wonder has been made. Although discovered for us moderns in 1878, the caves are old—so old that they probably were ancient when Rome fell, hoary when the pyramids were built, time-worn when man first walked the earth! Human bones in the mud at Skeleton Gorge show where some Indian entered and lost himself in the Stygian darkness, but even these old bones are modern to the cave.

Water, seeping through the roof from rainfall, dissolves minerals in its passage, and falling from the ceiling of the cave, the water evaporates on the floor, leaving its mineral deposit. If its flow is so slow that it hangs in drops on the ceiling, the evaporation takes place there, leaving the mineral on the roof. In this way, through centuries, stalactite has crept downward from the roof, stalagmite upward from the floor, often to meet and form a column. When you learn that one cubic inch of the mineral deposit forms in one hundred and twenty years, and that some of the columns are sixty feet thick, you can form some faint idea of the number of years needed to form these wonders; and you have come to visit them on a motorcycle!

Electrically-lighted throughout, with cement walks and hand-rails, the tour through the caves is without any physical discomfort. The temperature never varies the year round, save between fifty-four and fifty-six degrees F., and with the exception of "Fat Man's Misery" and "Tall Man's Misery," two places where one must squeeze and stoop for an instant, traveling through the caves is like walking through a spacious hall of statuary. Only no other hall in the world holds such strange carvings, such wierd formations, or such curious oddities as here greet the eyes on every side.

In the town of Luray, a mile beyond, are good accommodations at several hotels, for man and machine—gasoline and oil are plentiful all along the route. Bar the thirteen bad miles, and the roads are good. At the end of the tour is a natural wonder surpassed nowhere in the world. In all seriousness, then, can you think of a finer tour for a short vacation, a better way to make Mr. Two-Wheels justify his purchase? Frankly, having tried it, I cannot. If you will try it too you will agree with the thousands who have gone that way before. And if my story does not convince you, I can only say, as I have said to many others when words of description failed me—"Go and see!"



An Impressive Vista in the Cavern of Luray.

Motorcycle Routes Out of New York City

How Riders of the Metropolis May Find Their Way to Country Roads Without Losing Time in the Congested Districts

NEW YORK motorcyclists are a busy lot, as a rule, and when they find time for a Saturday afternoon or Sunday trip they cannot afford to lose a moment in getting into the country. In the following paragraphs some of their problems are solved for them, as information is given relative to leaving the metropolis by a number of routes:

Starting with the north, the road to Pelham, Rye, Larchmont, Cos Cob, Greenwich, and Connecticut towns, the rider who is seeking good running will do well to get into Fifth avenue as soon as possible and follow that thoroughfare to 110th street, the northern boundary of the park. There a turn to the left will carry him to Seventh avenue and another to the right at 145th street will take him across the bridge over the Harlem River into 149th street and Mott avenue, the Bronx.

Mott avenue, after 161st street is crossed, gives into the Grand Concourse, and a turn to the right will send the machine into Fordham road, across the railroad tracks, under the elevated railroad at Fordham station and into Pelham Parkway. A turn to the left out of Pelham Parkway, over the railroad tracks and a mile further on over a bridge, will start the rider on his road through Westchester and Connecticut towns. The trip can be continued, with good roads all the way, to Boston.

For a trip along the Hudson, the start to 110th street may be the same, but in 110th street you keep on to Broadway, and out Broadway you go to Yonkers. Trolley tracks will show the way almost the whole route, and from Yonkers you will reach Dobbs Ferry, Tarrytown, and villages further north along roads that have been laid since Washington Irving's time and are all the better for their age.

Into and from New Jersey various ferries may be used, but one which will take the rider over the best roads is the Twenty-third Street Ferry into Hoboken. There a turn to the left brings the motorcyclist into Fourteenth street and the viaduct. A turn to the right at Palisade avenue carries the motorist along to Bower street, where a turn to the left leads to the Hudson County Boulevard. A right turn from this gives on to the Newark Plank road across the meadows and into Newark, whence a fair start may be made for any except the northernmost towns of the State.

To the south, the ferry to St. George, S. I., starts the motorist on a trip through Tompkinsville and Stapleton to the Shore Road, which is to be followed for nearly a mile, when a right turn will take you into Vanderbilt avenue, and a left turn in Grant City will give into the Amboy road through New Dorp and straight on to Bentley avenue, which leads straight to the Perth Amboy Ferry in Tottenville.

C. J. MAIN, secretary of the Yale Motorcycle Club, of Chicago, announces that the club has now moved into its new quarters at 1444 Hudson avenue.

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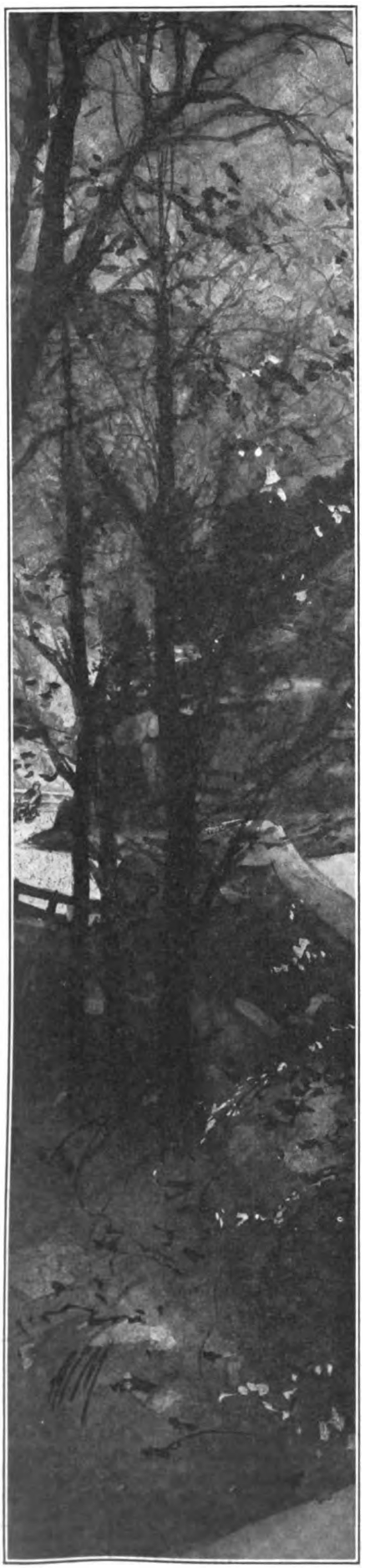

Along The Line Wi

Riders in Many Districts Enjoy Early Spring Ru
Scores of Outings and Reliability Events Ar
Clubs Will Hold 200-mile Runs and Tre

BALTIMORE, MD.—The proposed four-state run of the Maryland M. C. scheduled for Decoration Day has been called off. The members decided at a meeting last Wednesday to abandon the original course and shorten it so that only two States will be traversed. The action was the result of a trip over the course by Capt. Nelson Johnson, Clayton Sandruck and James Basilicata. Their report was such that the members decided not to take the longer run, so a course from Baltimore to Westminster, Gettysburg, Chambersburg, Hagerstown, Frederick and return to this city was adopted instead.

The trip through the Valley of Virginia would have necessitated a late stop at Gettysburg, and as there are innumerable parades and outings in the city on that day, it would be hard to obtain conveniences, so it was thought better to include Gettysburg in one of the first checking stations and then continue around the loop, cutting out the Virginia and West Virginia points.

The pathfinders covered the route of 178 miles in nine hours and two minutes actual riding time, so it was decided to allow ten hours for the competitors to go over it on May 30. A stop of three minutes will be granted at checking stations and controls, with a noonday stop of one hour at Hagerstown for dinner. Eighteen miles an hour will be the speed maintained, and under the new arrangements new riders will find it more advantageous to compete, with a better chance to run away with some of the prizes offered by the club.

CHESAPEAKE ENDURANCE RUNS

AT a recent meeting of the Chesapeake M. C., of Baltimore, Md., a schedule for the coming summer was outlined. It was decided to hold two endurance runs of 200 miles each. One will be held in June and the other in September. Members of the club are also looking forward to a run to Gettysburg July 4. This will be the fiftieth anniversary of the Battle of Gettysburg and it is hoped to have all the motorcyclists of Baltimore unite on the occasion for the run to the scene of the famous battle. Committees have also been appointed to inspect a number of proposed locations for a new club home. George W. Goggins, secretary, reported a balance of $191 in the treasury.

FIRST OFFICIAL RUN

MEMBERS of the newly organized motorcycle club of Schenectady, N. Y., recently made the first official club run, traveling to Johnstown. The club has a membership of 35, all of whom participated in the run.

ANNUAL SPRING RUN

AT a recent meeting of the North Jersey M. C., of Paterson, N. J., a committee was appointed to map out a route for the annual spring run, to be held May 11. The course will take in about 160 miles.

A RE-ORGANIZATION meeting of the Harlem M. C., of 120th street and Fifth avenue, New York City, was held April 11, and only the active members of the club were retained on the membership list, which was reduced to sixty. However, with the opening of the season it is expected that many members who have dropped out during the last few months, will again take part in the weekly runs held by the club. Three medals, gold, silver and bronze, are to be given to the members participating in the most runs during the season.

In addition to the weekly runs which the club will hold it was decided to have three endurance runs. The first of these, or the annual spring open endurance run, will be held on May 30, 31 and June 1. Stopping over night at Farmingdale, N. J., the riders will reach Atlantic City the following morning, where they will remain all day Saturday and over Saturday night. The return trip will be made Sunday. The second of the series will also be a three-day event and is scheduled for July 4-6. The destination for this, and also for the last of the runs, which will probably be held for three days, beginning with Labor Day, will be announced later. Entry blanks for the run to Atlantic City will be out in about two weeks, the entry fee being $2.

FREMONT M. C. RUN

MEMBERS of the Fremont (Ohio) Motorcycle Club recently held a run to Fostoria, Bowling Green, Woodville, Findlay and back to Fremont. This was the first run of the season and brought out a large percentage of the club's membership.

TWO SAVANNAH TRIALS

OWING to poor road conditions the Savannah (Ga.) M. C. has found it necessary to change the plans for its proposed 300-mile endurance run. Instead of having one 300-mile event there will be a two-day 300-mile run on April 26 and 27, and on the latter date there will also be a one-hundred-mile event.

BOSTON TO NEW YORK

A 248-MILE sidecar trip from Boston to New York was recently made by two motorcyclists of the former city. The run was made in one day, the boys arriving at the metropolis a little before nightfall. The combined weight of the riders was 288 pounds, and the sidecar weighed about 100 pounds.

NEWBURGH TO KINGSTON

A NUMBER of members of the Newburgh (N. Y.) M. C. recently made a run to Kingston. This was the first club run of the season and a number of the riders had their new machines out for the first time, while all of the riders wore new buff uniforms. Captain Thomas Hornbeck was in charge.

TWENTY members of the Sunville Motorcycle Club, of San Jose, Cal., recently participated in a run to Colorado Springs and Manitou over good roads. The squad included a number of tandemites.

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Busy Club Roadsters

ite Uncertain Weather and Road Conditions, and Books for May—Newark and Chesapeake and Harlemites Frame Long Schedules.

PLANS for the 200-mile reliability run of the Newark M. C., of Newark, N. J., have been completed. The test is the first competitive event ever held by the club and is being staged as a means of enlivening interest among the club members. Two hills will be included in the run, that over Schooley's Mountain and one up Cushmaul Hill, the latter on the return trip.

Starting at 6 a. m. the riders will go through Irvington, Springfield and Chatham to Morristown; thence on to Chester, German Valley and over Schooley's Mountain to Washington, where the first checking station will be located. Then will follow a jaunt through New Village to Phillipsburg and over the Delaware River to Easton. At this point the contestants will be met by a delegation from the Allentown M. C. and escorted into Allentown. After a two-hour stop the return trip will be started. There will be a checking station at Washington at 2:45 p. m. and at Morris Plains at 4:15 p. m. The last leg of the run will be through Pine Brook, Singac, over Cushmaul into Caldwell, and thence into Newark, with the checking-in time set at 6 p. m.

TROUBLELESS 2,000-MILE TRIP

A MOTORCYCLE jaunt of 2,000 miles was recently completed by J. M., M. A. and Claybrook Jacoby, of Hutchinson, Ky. The trip was made in two weeks time and the riders passed through the following cities: Lexington, Ky., Cincinnati, Toledo, Dayton, Detroit, Lansing, Grand Rapids, Chicago, Indianapolis and Milwaukee. The return trip was made by way of Louisville, Ky. It rained so hard in Michigan that the best time the riders could make was 75 miles a day, while in Ohio they averaged 225 miles a day. One of the boys reports that the roads were the worst he had ever seen, sand and mud being a foot deep, but at no time during the trip did the engines cause trouble.

WORCESTER M. C. ENDURANCE RUN

IT has been announced that the second annual endurance run of the Worcester (Mass.) Motorcycle Club will be held June 21 and 22. A course has not yet been selected, as it is the intention of the club to get reports on a number of routes in the district.

TANDEMS IN FAVOR

NO less than 100 members of the Salt Lake City M. C. recently participated in a run to Garfield. About 35 machines carried tandem passengers. A run to Ogden was also made by the club on April 13.

TWENTY members of the Kerman (Cal.) M. C. recently made a Sunday run to Fresno. A number of the fair sex piloted their machines on this outing.

TWENTY-FIVE members of the Wilmington (Del.) M. C., recently made a Sunday run to Atlantic City, N. J. A run to West Chester was also held by the Wilmington club and fairly good roads are reported on this route.

DESTINATIONS and routes for bi-monthly runs of the Indian M. C. of Trenton, N. J., have been arranged by the touring committee as follows: April 20—Trenton to Burlington, to Camden, to Medford, to Mt. Holly, to Columbus and Trenton. May 4—From Trenton to Asbury Park via Highstown, Freehold, Farmingdale and Point Pleasant, returning via the same route. May 18—A run to Washington by way of Flemington, White House and Clinton. The same course will be followed on the return trip. On June 1 the riders will go to Ogontz and Willow Grove, passing through Oxford Valley, Hulmeville and Frankford and returning via same route. South Amboy will be the turning point of the June 15 run. The outward trip will be made by way of Hopewell, Blawnburg, Somerville and New Brunswick. Keyport, Redbank and Freehold are on the return route. The run of June 29 is the last included in the present schedule and will be to Philadelphia. Oxford Valley, Hulmeville and Ogontz will be passed on the outward trip and Camden on the return.

The first of the runs was held on April 6, at which time the riders went to Newark by way of Highstown, New Brunswick and Rahway. Elizabeth, Plainfield, Somerville and Princeton were included in the homeward jaunt.

HOUSTON M. C. RUNS

A 100-MILE run to Arcadia was recently made by members of the Houston (Tex.) M. C. The outward trip was made via Alvin, and returning the riders passed through Angleton, Columbia, Chenango and Sandy Point. A trip to Matamoros, Mexico, is planned by the club for May 5.

A BAD HILL CONQUERED

JOHN LIVINGSTON, a motorcyclist of Worcester, Mass., recently negotiated what is considered the worst grade in Worcester on his Excelsior 7. He piloted his machine up Forbes street, taking a 22 per cent. grade. Livingston is the third rider to climb the hill. Russell R. Coes was the first to go up, on a Henderson. William S. Bunker, riding a 7 h. Excelsior, was the second man to make it, and then Livingston made the ascent successfully.

A POPULAR RUN

UNDER the leadership of Captain Morgan, members of the Allegheny (Pa.) M. C. recently participated in a run to Bedford. Morgan reports that the roads are in excellent condition and says that this trip will be very popular with the riders in that section during the current season.

LA PORTE RIDERS PLAN RUNS

AT THE last monthly meeting of the La Porte (Ind.) M. C. plans were laid for a road race between La Porte and Michigan City on Decoration Day, and for a race meet to be held July Fourth. Other runs will be held at regular intervals. The first official run of the season was held April 10 to Gary, and a large number of the members were on hand.

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W. G. SCHACK

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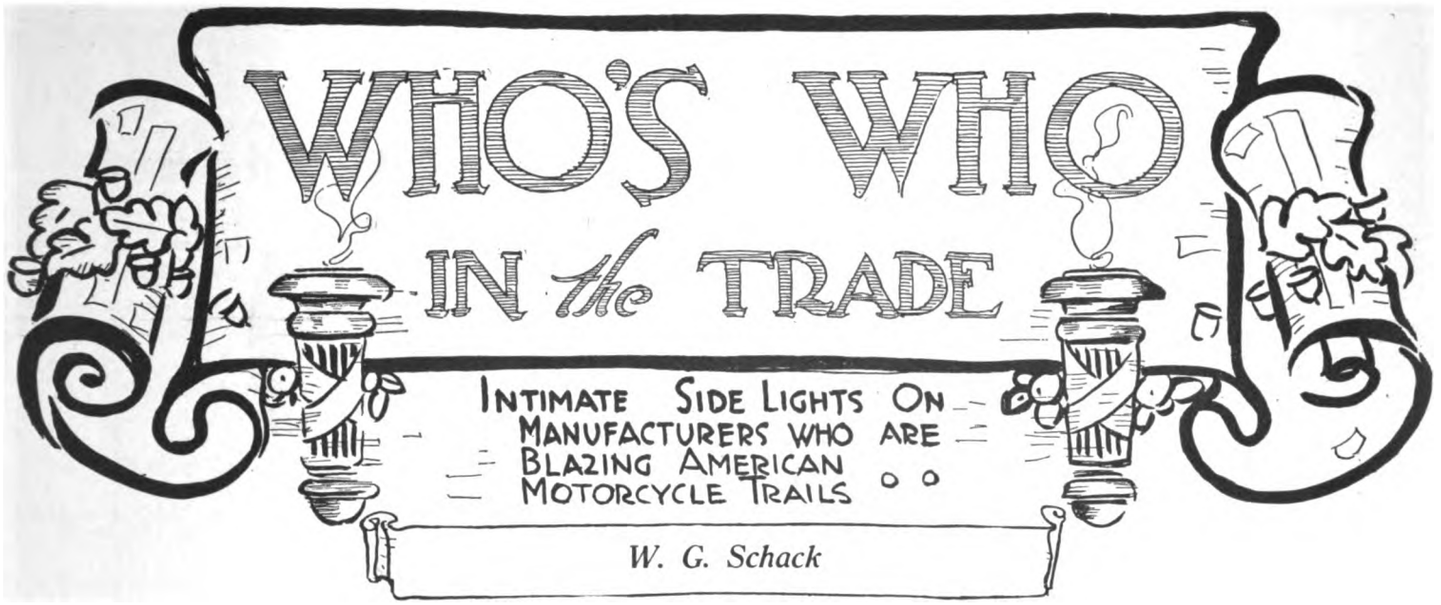

"HAVE not posed formally for a photograph in the last twenty-five years, and the best picture I can give you is a snap-shot taken of me at Peru, Ind., some ten years ago." This paragraph in a recent letter from General Manager W. G. Schack, of the Emblem Manufacturing Company, explained his inability to produce a large photograph of himself for the editor of the "Who's Who in the Trade" series, and it also gave an interesting insight into the character of the man who has placed the Emblem in the front rank of American motorcycles. In these days of advanced ideas in photography, when even the high-pressure business man finds the time and the inclination to be photographed in half a dozen characteristic poses, it is noteworthy that one snap-shot was Mr. Schack's pictorial limit for a quarter of a century.

There are several good reasons for this paucity of photographs of the well-known Emblemite. In the first place, he is innately modest; none of his friends could imagine him deliberately going to a studio to be photographed, and secondly, much of his success has come through making every move count. He has had no time for pictures of late. He has been too busy keeping abreast of his interests and in touch with his country-wide circle of trade friends. None of his progress has been left to chance. Hard work and the most rigid application to business are the principal articles in his business creed—and that is why his forty-eighth year finds him photographless, except for the snap-shot taken in Peru ten years ago. It was this picture from which the artist was obliged to work in preparing the portrait on the opposite page.

ENTERING THE CYCLE FIELD.

It was in 1880 that Mr. Schack first turned his attention to cycling. He had just left school, and finding that most of the young men of his acquaintance were going in for bicycling he decided to purchase a machine. His first mount was a Royal Mail, and his experiences with it would—as Kipling says—make another story. He covered many miles on it and became so imbued with bicycling enthusiasm that in the following year he became agent in Buffalo for the New Mail bicycle, made by William Read & Sons, of Boston. He made rapid progress in building up a business and continued to sell the New Mail for fifteen years, making extensions from time to time to keep up with developments in the industry. During the latter part of this period he also handled the Eagle, the American Humber and other makes.

He started the manufacture of Emblem bicycles in Buffalo in 1894, and found a ready sale for them. It was his policy to make a modest start and be prepared to back up all his ventures and this policy he has maintained to the present day. When he found that the Emblem line of bicycles was meeting the requirements of riders to his satisfaction he began to look about preparatory to expanding the business, and finally the Emblem Manufacturing Company was organized in 1904, with headquarters at Angola, N. Y., the present scene of the firm's activities. It was not until 1905 that the company entered upon the production of motorcycles, and not until 1906-7 that the firm built its own motors.

A FULL-FLEDGED ENTHUSIAST.

Mr. Schack has always been something of an athlete, and he still enjoys a spin on a bicycle or a road jaunt on one of the sturdy Emblem motorcycles. At one period in his cycling career he narrowly escaped becoming a full-fledged professional racer, for he romped off with a number of local championships and was recognized as a daring and hardy track man. From 1883 to 1896 he rode a great deal and figured in many bicycle meets. He held the Rambler championship and also captured a number of Buffalo trophies, and his friends were fully convinced that he would rank with the best if he decided to devote more of his time to speed work. About the same time he became interested in roller skating and polo, and from 1880 to 1887 he was one of the best known skaters and poloists in his section of the country. Newspapers of the period contain many references to his accomplishments in these branches of sport, and give him credit for going in to win on every occasion.

. Mr. Schack was for eleven years a member of Company D, Buffalo City Guard, in which he rose to be a first sergeant. It will be seen that his interests at this time were varied, but despite his inclination toward athletics he managed to put in a remarkable amount of hard work. He is of the opinion that his close application to business in later years would not have been possible but for the fine foundation of health and muscular development obtained in his early life.

LIKES BASEBALL AND BOWLING.

"I will be forty-eight years old on September 29 next," said Mr. Schack in a recent interview, "and I am just as much of an athletic enthusiast as I ever was. I enjoy a bicycle or motorcycle trip and ride whenever an opportunity presents itself. I enjoy bowling and think it is a first-class game for a business man who needs a little exercise now and then. I also enthuse over baseball and would travel some distance to witness a good game. What's more, I like to play a game myself when I can find some one in my own class to play with."

It is safe to say that Mr. Schack is one of the most versatile men in the motorcycle field today. In the capacity of general manager of the Emblem interests he attends to the buying, handles the financing of the firm's operations and takes a personal hand in the selling branch. Each year he travels from Boston to San Francisco and places the output of the Emblem plant. In this way he has maintained a grasp of the entire business that is remarkable. Since he organized the original company rapid progress has been made, and the factory is now five stories in height with ground dimensions 330 feet by 40 feet. Mr. Schack has been in the bicycle business as retailer, jobber and manufacturer for 33 years, and has always lived in Buffalo.

CALIFORNIA CONVENTION

L. OWEN, state F. A. M. Commissioner for California, with headquarters at 28 South Fair Oaks avenue, Pasadena, announces that plans are well under way for a state convention to be held in San Jose, June 21, and that indications point to a big turn-out of motorcyclists. All the F. A. M. members in the state will be invited to assist in making the convention successful, and it is believed that a number of tours will be conducted to the convention city. During the assembly a state commissioner and a state referee will be elected and district commissioners will be appointed.

About 300 riders of southern California have planned a vacation tour and they will arrive in San Jose for the convention.

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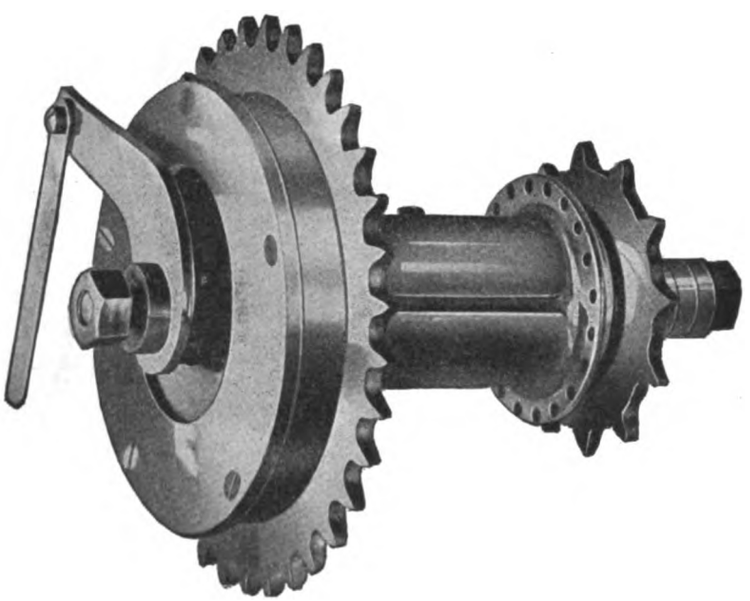
ECLIPSE

The Brake You Can Trust

Terrific gripping power, tremendous strength, marvelous durability, unfailing reliability—these features are found in the Eclipse Perfection Multiple Disc Brake, and make it worthy in every way of the title, "The Brake You Can Trust."

One Hundred Square Inches of Braking Surface. Figuring at the rate of 350 pounds to a motorcycle and rider, that makes a square inch of braking surface for every three and a half pounds. Examine the specifications of the leading automobile manufacturers. No automobile brake is made large enough to distribute less than nine and a half pounds over each square inch of braking surface. Figure it out for yourself. That means the Eclipse Multiple Disc Brake is stronger—much stronger—proportionately, than the strongest automobile brake made. Do you need any further proof of Eclipse reliability?

Dealers—we again ask you to look ahead. Do not be caught napping. We positively predict the most sweeping, the most insistent demand from riders for Eclipse Free Engine Pulleys and Multiple Disc Brakes that has ever been experienced since their introduction to the motorcycle rider. Lay in a heavy stock. You will thank us for this sincere and earnest advice—if you follow it.



Eclipse Machine Company

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H. T. ROBERTS, Selling Agent, Railway Exchange Bldg., Chicago

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IMPORTANT.

OWING to its large circulation, it requires two full days of 24 hours each, after the last form has closed, to print, bind and mail a full edition of MOTORCYCLE ILLUSTRATED. In view also of the fact that this publication is read in more than 2,400 different cities, towns and villages in the United States, its wide distribution demands that each issue be placed in the mails not later than noon every other Thursday, the date of publication. In order to make the mails at this time, forms must close not later than 6 p. m. Tuesday, and advertising copy cannot, therefore, be handled if received later than Tuesday morning.

RECEIPT OF TEXT MATTER.

This applies also to text matter. Photographs should reach us not later than Monday morning preceding each date of issue. They will be given better attention if reaching us the Saturday preceding.

CORRESPONDENCE.

MOTORCYCLE ILLUSTRATED requires correspondence and subscription agents in many towns where the paper is not already so represented; we pay a liberal commission to subscription agents, and the best space rates for text-matter, drawings and photographs.

PHOTOGRAPHS.

Drawings, photographs and manuscript not suitable for publication will be returned if sufficient stamps are enclosed for the purpose. In every case, photographs should be plainly marked, so that they may be properly identified.

WHERE THE AD. WAS SEEN

NOT long ago the Kraft Appliance Company, of Akron, Ohio, received the following letter:

"Please send me two rolls of tape as per advertisement. I ride an Excelsior 6 T model, and the width of the belt is 2⅛ inches. Please send this by international parcel post as follows:

Via Japanese parcel post
A. C. Grimes
For A. B. De Haan, Tientsin, China.

"Your advertisement WAS SEEN IN MOTORCYCLE ILLUSTRATED."

"This speaks volumes for the length and breadth of your circulation and the value of your paper as an advertising medium for motorcycle accessories," writes the Kraft company, "and we thought the letter might interest you."

IT DOES INTEREST US, AND WE BELIEVE IT WILL INTEREST OTHERS.

DENVER TO PLAY HOST

FOR the first time in the history of the F. A. M. a city west of the Mississippi will play host to the Federation at the coming annual assembly, and that Denver will make the most of her opportunity to demonstrate the hospitality of the high-pressure West is a foregone conclusion. The qualifications of the Mile-High City as a convention center need not be dwelt upon, and that motorcyclists of the district are possessed of a result-getting brand of enthusiasm was strikingly shown not long ago when the musketry of over three hundred motors greeted Director Sauer at the Denver station.

In due time the F. A. M. directorate will ratify the action taken in Chicago and plans will be perfected for what promises to be the biggest Federation assembly so far on record. In the meantime State organizations and clubs may busy themselves with preliminary arrangements for tours to the convention city. A number of big touring divisions are already assured, and a commendable movement is being launched to hang up new figures for the number of motorcycles at the 1913 national assembly.

SOME QUEER REGULATIONS

ONE of the knottiest problems that the Legal Action Committee of the F. A. M. has had called to its attention in some time concerns the use of sidecars in New York City. On the ground that the addition of a third wheel brings the sidecar outfit within the provisions of the motor vehicle law, officials in certain precincts of the city are issuing licenses to users of the motorcycle passenger attachments at the usual automobile rate of five dollars. In some other sections of the city no license is insisted upon.

At present the interpretation of the law as applying to sidecars appears to rest with the police authorities in the various precincts; hence the varying conditions. To remedy this state of affairs the Legal Action Committee of the F. A. M. has taken steps to obtain an opinion from the Attorney General, and sidecars will either be exempted or placed upon an understandable basis where all users will be called upon to pay a recognized license fee. Why there should be an attempt at discrimination between the motorcycle—which does not require a license in New York State—and the sidecar outfit, is beyond the ken of even the officials who hold out for the fees. Some of them openly admit that the present licensing movement is absurd, but they argue that when a motorcycle ceases to be a two-wheeled vehicle it is subject to the regulations imposed upon motor cars.

One of the queer twists to the situation is that the sidecar user who carries a motor vehicle license is at liberty to disregard motorcycle speed limits and follow the pace set by the automobilists. In some districts of the city this permits the sidecarrist to speed up to eighteen miles an hour, while his brother motorcyclist who is without a sidecar must keep within an eight-mile limit. This feature almost offsets the hardship of the license fee for some of the riders who are inclined toward setting a clip, but it helps nevertheless to prove the general unreasonableness of the law as applied in some of the precincts. It is believed that when the existing conditions are brought to the attention of the State authorities sidecars will be exempted from licensing, or that a low fee will be specified to keep within the letter of the law pending a revision.

BOOMING STATE ORGANIZATIONS

THAT the state organization plan is calculated to solve satisfactorily most of the problems confronting F. A. M. members is evident from the alacrity with which clubs enter upon arrangements for launching state bodies once they are acquainted with the proposition in detail. Throughout his transcontinental lecture tour Director J. Leo Sauer has dwelt upon the necessity for state governmental units to promote Federation interests, and to afford affiliated riders in all parts of the country opportunities for active participation in the governing body's affairs, and he is preaching the same doctrine on his present trip into the Middle West.

Director Sauer's meetings in New England this week resulted in pledges of state organizations in Connecticut and Massachusetts, and the outlook is gratifying for continued progress along these lines.

STATEMENT OF OWNERSHIP AND MANAGEMENT

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H. N. Condict, East Orange, N. J. 21 shares
John J. Donovan, New York..... 1 share

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THE MOTORCYCLE PUBLISHING CO.,
H. N. Condict, Secy.

Sworn to and subscribed before me this 15th day of April, 1913.

[Seal] FREDERICK L. CAMPBELL,
Notary Public, Kings County, No. 187.

Certificate filed in New York County No. 61, New York County Registers No. 5164, New York County. Registers No. 6178 Kings County.
(My commission expires March 30th, 1915.)

Average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to PAID subscribers during the six months preceding the date of this statement, 13,570.

The above figure only includes copies sent by mail to paid subscribers, and copies PAID FOR by the American News Company. Sample copies and American News Company's returns are not included.

The NET PAID circulation of the current issue of MOTORCYCLE ILLUSTRATED is 14,547 Copies.

Press Run, 15,000 Copies.

Distributed as follows:

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American News Co.	5,800
Office Use, etc.	166
Total	15,000
Total deductions	453

SUMMARY.

Press Run	15,000
Deductions	453
Paid Circulation	14,547

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ENGLISH NOTES

"BRITISHER"

THE principal British motorcycling journal has just published its 520th consecutive issue, and its editor marked the occasion by holding a referendum of the leading designers and riders as to the probable specifications of the type of machine they expected to be dominant in 1923 A. D. As was only to be expected, opinions differed very widely, but the general trend of the opinions pointed to a lightweight, open-framed machine, sprung fore and aft. The engine favored was either a watercooled two-cycle multicylinder, or an aircooled multicylinder, operating on the Diesel principle; in either case, the experts were of opinion that a tremendous brake horsepower would be extracted from a very small bore and stroke. Doubtless they had the modern aeroplane engine in mind.

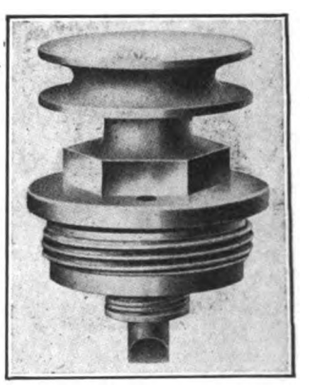
They were unanimous on the subject of variable gears, and nobody anticipated less than three ratios, while many favored four, or an infinitely variable gear. Opinion was more divided on the subject of the transmission, but the belt found very few votes. An enclosed shaft was the most popular, though a few leant towards enclosed chains. Such details as forced and automatic oiling, electric lighting dynamos and automatic or semi-automatic carbureters were generally indicated.

THE TYPE MOST LIKELY TO SURVIVE.

THE EDITOR in question then employed a well-known publicist to criticise the expert opinions. He pointed out that the general public are less enthusiastic about mechanical innovations than the professional engineer, and that amateur users put the highest value on lightweight, low price and ease of cleaning. Furthermore, the past history of the pedal-cycle and motorcar indicated that the forces of conservatism would have a strong retarding effect upon development. Thirdly, that ten years is no long period, and that it would be folly to ignore present-day tendencies so completely as the engineers and speedsters were inclined to do.

Applying these principles to the problem, he suggested that the survivor type of the present market was likely to be the 350cc. 150-pound machine, now selling at $225 or thereabouts. This is already the most popular machine amongst the "short-distance" public, who neither attempt protracted tours nor engage in competition work. It is almost the equal of heavier and costlier types for general touring purposes; and within ten years it will be further developed. In fact, there is no reason why the 1923 descendants of this type should not produce 8 b. h. p. from a 200cc. horizontally opposed high-speed engine, weigh no more than 90 pounds and, with the aid of standardized output methods, sell for $150.

This machine is already the dominant type; it will increase its grip on the public within the next three years; and it is hard to imagine a better selling proposition for British purposes. It can, of course, be improved in certain directions. It is not so durable as its bigger sisters, and metallurgy and better designed lubrication should increase its wearing powers. It bristles with small details, which harbor dirt; wherefore he foretold the re-designing of the power unit, consisting of engine, gearbox, primary drive, magneto and carbureter into a flushsided eggshaped unit, capable of being hosed down. Should the engine retain aircooling, the radiators would probably be detachable, spring on to the cylinder barrel and be detached and put in a bucket of water while the machine itself is being hosed down. Disc wheels are to be expected, for similar seasons, we believe.



Valve-grinder that is spun with a piece of cord.

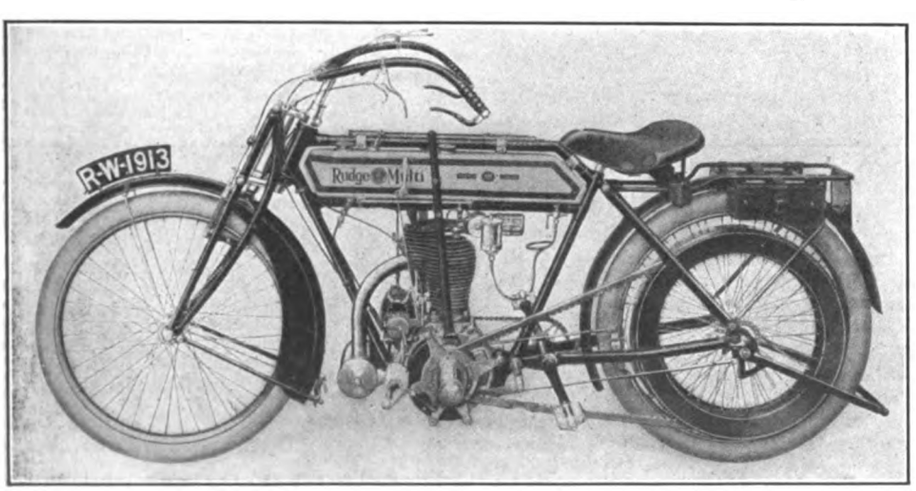
THE MOTORCYCLE DE LUXE.

THE further question arises whether any alternative type of machine is likely to hold its own against this small and economical roadster. Machines of this type have already touched 75 m. p. h. on Brooklands track, so the 1923 grandchild is likely to satisfy all speed lusts. But machines will be required to haul some type of passenger attachment, and the all-weather rider will demand better protection than the naked lightweight affords. So it is probable that a heavier type of motorcycle de luxe will gradually be evolved.

This, according to the critic, will be a millionaire's car on two wheels. It will have a silent and flexible engine, probably a watercooled two-stroke, with a range of revolutions from 120 to 3,000 or so; open sprung frame, chair seat, and enclosed shell canoe body, consisting of waterproof fabric on wire or aluminum stretchers, light windscreen, etc. Higher powered machines are expected to disappear from the excellent roads of Great Britain, as tiny engines continue to develop an increased efficiency output.

STERN JUDGING METHODS.

THE ENGLISH governing body, the Auto-Cycle Union, has at last established its position so firmly that it is able to dictate to the trade and the competition riders. Its first important



Rudge touring model referred to on the opposite page.

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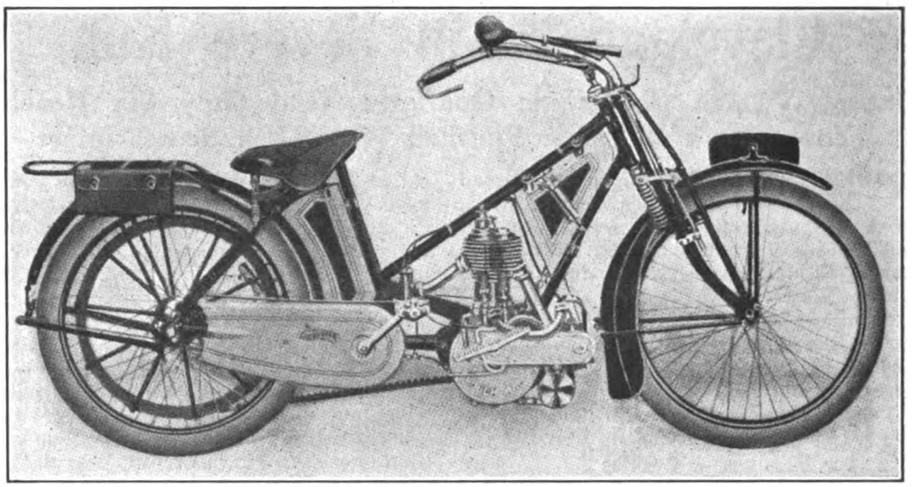
event of the season was a one-day nonstop trial, and the judges calmly disqualified over forty machines which climbed all the hills, were punctual to the second at all controls, and covered the required distance absolutely nonstop. Of these unfortunates, the majority were penalized for inefficient mufflers, no fewer than twenty-two motorbicycles being disqualified on this score alone.

The judges' hands were strengthened in this respect by the fact that the Government's new order against noisy exhausts went into force on March 31. In addition several sidecar and cyclecar owners were disqualified because their passengers assumed acrobatic attitudes on the test hills. The single driving wheel of a sidecar or tricar seldom provides sufficient tire adhesion on a greasy single figure gradient, and it has become common for the passenger to climb out on to the carrier and concentrate his weight over the back wheel when the steep knuckle looms ahead.



Open-frame model of the Brough, designed for English lady riders.

SPRING-FRAME SIDECARS.

ANYBODY who has ridden in a good sidecar knows that it is almost as comfortable as the limousine of an oil trust magnate, but some sidecars are literally more cosy than any car. I append cuts of the Montgomery spring-frame sidecar, which is perhaps the most popular fitting on this side. The cuts show that the main frame is sprung off the axle rod, and that a cross spring insulates the footwell, in addition to the normal pair of Cee springs, on which the chair is slung. The small print shows how quickly the seatpillar support can be unhooked.

THE TOURIST TROPHY RACES.

THE T. T. RACES are definitely dated for Wednesday, June 4, and Friday, June 6, and it is expected that there will be two classifications, for machines up to 350cc. and 500cc. single and twin-cylinders to race on level terms. In most other respects the races are completely reorganized. The distances will be vastly increased as follows: On Wednesday both senior and junior machines will race side by side all day long. At the conclusion of Wednesday's racing, all the machines will be taken away from their jockeys, and put under lock and key in official custody until Friday. On Friday morning the junior machines will start out for an extra three laps by themselves, and their starting times and order will be determined by their net racing times on Wednesday, so that the first machine past the tape on the concluding lap will be the actual winner, and spectators need only bother to keep a lap register, without working out actual net times.

On Friday afternoon the senior machines will fight out their last three laps in the same fashion. The increased distance will make the race exceedingly interesting, and it is probable that machines which have not won outright will now have a better chance. In particular it is freely prophesied that the single cylinders will have the pull. The delicate adjustments of the average twin, with overhead valve gear, are not expected to last out the increased distance. A record entry and some very exciting racing is confidently expected.

RUDGE MOTORBIKES.

I DO not remember having sent you up-to-date pictures of the Rudge, which runs a fine race with the Triumph for premier place on our market. I show a picture of it in its full heavy touring kit. Note the long black lever beside the tank which operates the twenty-speed "Multi" gear (don't be shocked at the 20 speeds—we have another machine—the Zenith—with 164 speeds). This gear consists of an expanding and contracting engine pulley, and the belt slack is taken up by a unique fitment—an expanding and contracting rear beltrim, obtained by mounting one flange of the beltrim on the rear wheel itself, and the other by separate spoking on a sliding inner hub flange; this beltrim is operated by the pulley lever, one control sufficing for the two jobs.

As the print shows, the Rudge engine is one of the few singles on this side designed with overhead inlet valve. The curious box projecting rearwards from the Senspray carbureter is the gauze air reservoir. The long barrel projecting from the engine-pulley, houses a 24-plate multiple clutch. The pedal gear shown has no connection with the rear wheel; it merely acts as an engine starter, driving on to a freewheel mounted on the halftime shaft and running in oil inside the crankcase. The left-hand pedal can be kicked down level with the other, to serve as a secondary footrest. The rear stand is spring operated, and is never touched by hand. The clutch is controlled by the little ratchet lever shown well up the left-hand side of the handlebar, and is much more sensitive than any pedal. This machine scales 242 pounds all on, ready for the road.

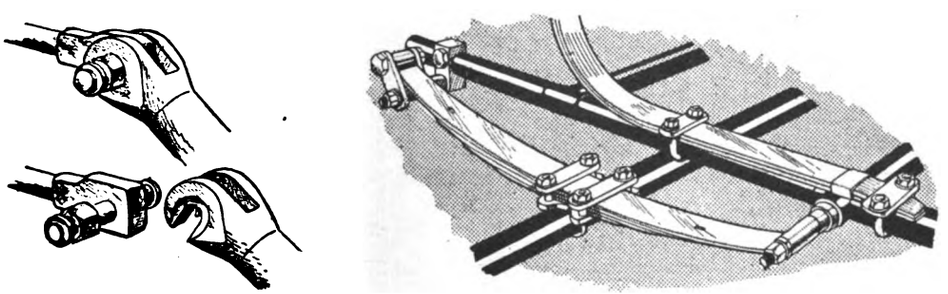
A CUTE VALVE GRINDER.

THIS is one of the little tips which make for convenience. The big hexagon nut is screwed into a valve-cap orifice, when a valve requires refacing. A concealed spring depresses the screwdriver until it finds the slot in the valve head. If a stout cord is run round the collar on the driver end, and pulled forwards and backwards vigorously, the valve is ground well in, and no time is wasted.

A LADIES' MACHINE.

VERY few British girls have taken to riding astraddle. The picture of a 3½ h. Brough shows that it is not easy to design a shapely open frame. Machines of this type, fitted with free-engine clutch and three-speed hub, sell to the fair sex in some quantities at $275; but probably the most popular ladies' machine of the year is the Scott two-stroke, which has a really graceful outline in spite of its open frame, while its smooth purring exhaust and mauve enamel win a damsel's susceptible heart every time. If a 120 pound girls' jigger could be turned out on Scott lines, it would have furious sales; but the existing genuine touring machines are too heavy for women, while the lightweights and mediumweights are still a shade below the general level in point of durability and reliability.

There are perhaps 500 women owning motorcycles in Great Britain at the present moment, and the cyclecar is winning fresh converts among them. But there will not be a tremendous boom in ladies' machines until they are a little lighter, cleaner, cheaper, and prettier. I quite anticipate that in ten years' time we shall have ten thousand girl owners, though I daresay few of them will ride except in summer.



Details of the Montgomery spring-frame sidecar.

HOW CYCLECARS ARE GOING.

THE LEADING makes of cyclecars are steadily making good. Of the hundred odd types on the market, not more than a dozen have achieved any considerable market, and the most popular are those who most closely follow automobile lines. In fact the successful types are about as costly as a Ford runabout, and are not so comfortable, though they may be a little faster. Apart from these complicated four-wheelers, the two types which do best are the Morgan and A. C. three-wheelers.

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Clevelandites in Severe Run

Out of Twelve Starters in Quarterly Trial Only Six Reached Youngstown and Four Finished With Their Scores Intact

RIDERS who participated in the second Quarterly Trial of the Cleveland M. C., on April 6, to Youngstown and return, are unanimously of the opinion that the run was one of the most severe ever conducted in the Middle West. Out of twelve starters only five finished and four of these retained all their marks despite the terrible strain to which they were subjected. The 1000-point men were Raymond Ray, Edward Hawkins, H. H. Sill and H. Myers, and the fifth rider to finish was I. H. Silsby, who had a score of 993.

Ed. Hawkins, one of the perfect scorers.

Before the squad left Cleveland it was known that the test was to be a most severe one, but no one realized just how hard the going would be until half a dozen miles had been put behind. The route led through Bedford, Twinsburg, Streetsboro, Shalersville, Freedom, Windham, Braceville, Lavittsburg and Warren; the first checking station was located in the latter place. From this point the route led to Niles and through Girard to Youngstown, where Paul Sheridan, formerly of Cleveland, acted as official checker. Most of the roads were deeply rutted and frozen, so that no speed was possible and even the most gingerly travel was attended by danger.

Owing to the fact that he got off the route Silsby, the Merkel rider, was seven minutes late in checking in at Youngstown, and out of the twelve who started only six reached this point. Raymond Ray went through without using a tool, and was lucky in not being called upon to use them for his repair parts and tools were lost soon after he left Cleveland. Wallace Feisler met with the only mishap of the run. A short distance outside Cleveland he collided with a milk wagon and was removed to a hospital.

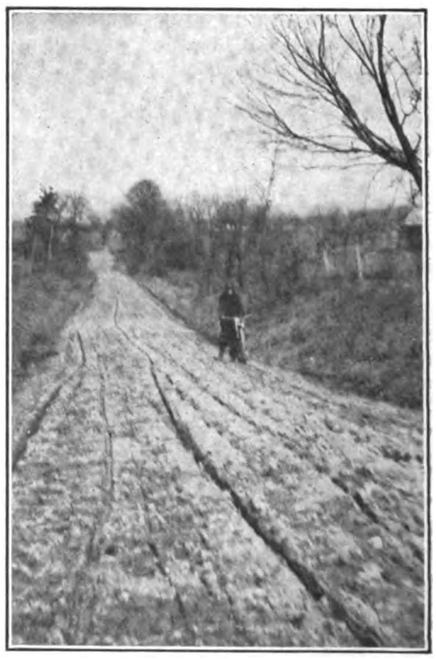
The scores are given as follows: Raymond Ray, 7 chain Merkel, Goodyear tires—1,000 points; Ed. Hawkins, 7 Thor two-speed, Empire tires—1,000 points; I. H. Silsby, 7 chain Merkel, Goodyear tires—993 points; H. H. Sill, 7 Thor two-speed, United States tires—1,000 points; F. C. Booth, 7 Jefferson, Goodyear tires—out at Warren; E. Farrell, 4 P. E. M., Goodyear tires—out at Youngstown; H. Myers, 7 Harley-Davidson, Goodyear tires 1,000 points; A. J. Hall, 7 De Luxe, Goodyear tires—out at Twinsburg (outbound); W. F. Marohn, 9 De Luxe, United States tires—out at Twinsburg (outbound); G. A. Sauer, 9 De Luxe, United States tires—out at Twinsburg (outbound); A. H. Knapp, 7 De Luxe, Empire tires—out at Twinsburg (outbound); W. D. Feisler, 6 Merkel, Goodyear tires—out following accident on outskirts of Cleveland.

APPORTION GOOD ROAD FUNDS

GOVERNOR AMMONS, of Colorado, has appointed five business men to form an advisory board to assist Highway Commissioner T. J. Ehrhart in the apportioning of the State good roads funds, which total more than $700,000. Improvement work will be begun at once and it is expected that before the F. A. M. convention in July the roads will be in fine condition. Maps are now being prepared of the roads to be improved and rapid progress is predicted.

ROAD RACE NOT APPROVED

BOTH the F. A. M. Board of Directors and the Motorcycle Manufacturers' Association have advised against the holding of the 650-mile road race proposed by the Kansas Short Grass M. C. as a feature of its annual tour, owing to the natural difficulties that would be encountered and because of the fact that the authorities in all towns and cities along the route would have to be called upon to lift speed limits for the event. The Short Grass tour for 1913 will be to Denver, and the squad will arrive there during the F. A. M. convention. It was planned to make the last 650 miles of the trip a road race into the Mile-High City. It is the intention now to dispense with the road race and simply have the big tour to the convention city.



Section of Route in C. M. C. Trial.

AMERICAN TEAM NEEDED

A LETTER received by the F. A. M. from W. H. Wells, of London, England, its representative in the Federation Internationale des Clubs Motorcyclistes, urges that a strong team be sent to represent the United States and the F. A. M. in the international team competition to be held in England in August.

Silsby and Ray, the Flying Merkel team, and Hall, Marohn, Sauer and Knapp, of the De Luxe squad, in Cleveland run.

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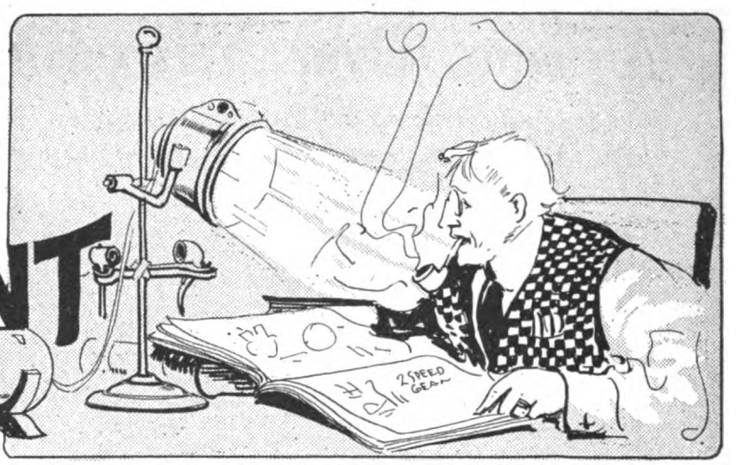
KINKS & KOMMENT

by "COURIER"



THE present capricious weather makes it pretty hard to start a cold motor, particularly a twin that is "oil-sensitive." I have been driving one such recently, and at first used only a quart at a time in the oil tank, drawing off the remaining oil each day and refilling with summer or winter grade as the weather called for. But this got to be too much of a job, so I left the oil in each night as usual, and used kerosene after every run to cut the oil.

Cutting the gummy oil with kerosene is a simple matter; it is merely necessary to inject some through the priming cocks and then turn the motor over a few times by the pedals to work the kerosene into the ring spaces and around the piston head. With a motor that has no priming cocks, but an auxiliary air valve in the manifold, use the valve and give plenty of the oil. If the motor has side-by-side valves, a removal of the exhaust valve cap will give the kerosene a fine chance at the gummed oil and carbon.

SCAVENGING ACTION.

SPEAKING of auxiliary air valves, they have another use affecting motor operation. When a motor has been running for some time and you do not want to lift the valve to stop it firing, open the auxiliary air. The mixture will be very much weakened and will not fire at all and a scavenging action by means of fresh air will be set up. If the machine is running on a level or upgrade, the motor will soon die down and stop. But the fresh air sucked into the cylinders will cool them nicely, sweeping any accumulated gases out through the exhaust and passing through the muffler will cool it also.

HOW THE SIDECAR SAVES FUEL.

THE SIDECAR as a fuel saver sounds like a pipe-dream, but not in hilly country. Take a machine that weighs about 189 pounds and couple up a 60-pound sidecar to it; then add 280 pounds of further weight of rider and passenger and the whole 520 pounds will roll down hill much faster than it can be driven on the level. On several of my recent trips the maximum hand on the speedometer rose to 56 miles and it needed both brakes to pull the outfit up near the bottom of the grades. Naturally there is no need to let the motor run while coasting, and this is where the fuel is saved in sidecar driving. Pull the clutch as soon as the crest of the hill is passed, and raise the valves, thus stopping the motor. Coast away and when near the bottom or when the outfit is going, per speedometer, about 10 miles an hour, lift the valves and let in the clutch gently and drop the valve, when the motor will take up its work again.

WHERE THE SEPARATE LIFTER SCORES.

IN THIS kind of riding, the separately-operated exhaust valve lifter has the linked-up one beaten to a whisper. When you reach the foot of such a grade as has just been referred to, the spark can be set fully advanced before the clutch is engaged and will not be affected when the valve is lifted. The transmission will "crank" the motor as soon as the clutch takes hold, and when the valve is released your little engine starts right along driving the outfit the same as before the hill was reached. Yes, and a trifle better, because it has had a rest and a chance to cool a bit.

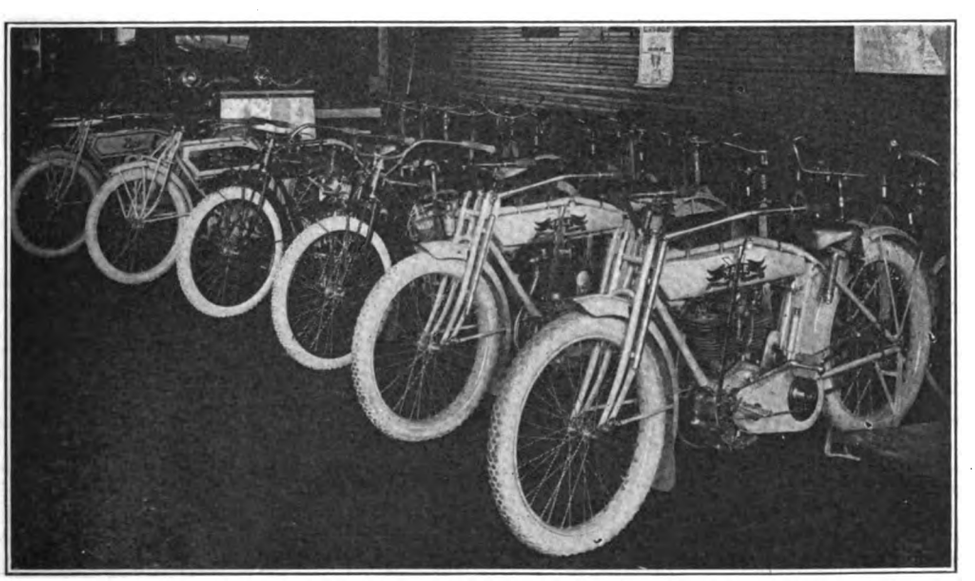
This makes for longer life of the motor as well as more miles to the gallon of gas. But, with the spark and lifter operated by the same control, there will be some nice work to get everything to move in the proper order until a little practice has been indulged in. The penalty of waiting too long before engaging the clutch and cranking over the motor is a "stall" or a snapped chain. The same thing may happen if the valves are not lifted and the clutch is engaged too soon, although the clutch may slip and save you at the expense of a severe wrench to the whole outfit.

SIDECAR TREADS.

RECENTLY I have been experimenting with various treads for the sidecar, and have come to the conclusion that about 42 inches is as good for the roads in this part of the country as any but a 56½-inch one. The latter is, naturally, much too wide and would result in a heavy sidecar, but it is the standard wagon tread. With an outfit tracking 56½ inches, any road could be negotiated, as all ruts could be dodged or ridden in. But, with a 42-inch tread, most ruts can be straddled on the ordinary road, and the corresponding width of frame allows of an amply-wide sidecar seat. One of the most comfortable cars was one with 36-inch tread; it was fine as long as the roads were not very rutty, but when we struck several rutty highways we entered the ruts with all three wheels and there was trouble. The "humps" were ground off by the nose of the sidecar body and the frame-tubes, and in two places on the road the rider and passenger had to lift the outfit out of the small gullies.

PRIVATE MOTORCYCLE SHOW

GILFILLAN BROTHERS, of 223 West Second street, Kewanee, Ill., recently held a motorcycle show of their own, and the accompanying photograph shows the line-up of machines displayed by them. They are agents for the Indian, Yale, Flying Merkel and Excelsior motorcycles.



SAUCER FOR MILWAUKEE

CONSTRUCTION work on a motordrome at Ravenna Park, Milwaukee, Wis., has been started. R. W. Hopkins, owner of the park, has applied to the F. A. M. for an exclusive franchise.

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A Tour Over Wisconsin Roads

Chicagoans Encounter Mud and Sand on Trip to Ellison Bay But Scenic Features Offset the Road Annoyances

By Pathfinder.

NOT long ago I enjoyed a motorcycle trip into northern Wisconsin with two fellow riders, and I must say that the tourist who is seeking diversity will find it by traveling over the route we followed. He will pass through deep forests, over steep hills that are traversed by winding roads and through valleys where every turn affords the eye another scenic treat. The air is clear and bracing, and for the rider who does not mind a little discomfort now and then the region holds out many inducements.

We live in Chicago and our plans called for a journey to Ellison Bay, Wis., where we intended to go into camp for a week or two. We decided to go via Milwaukee, West Bend, Kewaskum, Campbellsport, Fond du Lac, Calumet Harbor, Brotherstown, Stockbridge, Wrightstown, Depere, Green Bay, Luxembourg, Algoma, Forestville, Maplewood, Sturgeon Bay, Egg Harbor, Ephraim and Sister Bay, and this route proved to be fairly good. North of Evanston we had our first trouble. I broke a leaf in the spring on my machine and one of my partners rode to Evanston to buy another. It was only after a great deal of persuasion that he managed to have a dealer take one off a demonstrator, but he finally returned and I made the repair.

POOR ADVICE FROM A FARMER.

As soon as my machine was in condition we started off at a good clip to make up lost time. At Fort Sheridan one of the other boys had tire trouble, and as no water was available we experienced difficulty in locating the leak. It proved to be one of those bothersome slow leaks, and the tire was removed five times before a repair was finally made. We found that the air was escaping from an old hole that had been covered with three patches.

Near Kenosha we made road inquiries, and a farmer directed us to a route which was supposed to be better than the one we were traveling. It wasn't. The roads over which we had been riding were quite muddy, but the one mentioned by the farmer proved to be worse. After covering three miles we decided that it would not be advisable to continue. It was then quite dark and we asked permission to sleep in a nearby barn. The owner did not refuse directly, but we could see that we were not wanted, and when he suggested that we cut through his pasture and ride three miles along a railroad to a tavern we agreed that this was about the only thing left to do. Without great difficulty we made the trip across the pasture and covered the three miles to the tavern, where we put up for the night.

ON GOOD MACADAM AT LAST.

Early the next morning we rode into Kenosha for breakfast. From this point to Milwaukee we found the roads quite sandy and there was some mud, but we managed to get through. It should be stated that this stretch, between Chicago and Milwaukee, was the worst of the trip. North of Milwaukee I lost the other boys through a misunderstanding and did not find them again that day. When I arrived at Campbellsville I managed to locate the other fellows by telephone, and we arranged to meet the next morning. When we met on the following day we rode into Fond du Lac, and from this point around the east side of Lake Winnebago and through Calumet Harbor, Brotherstown, Stockbridge and Wrightstown to Green Bay.

Then we headed directly eastward for Algoma, but owing to tire trouble we only managed to reach Luxembourg for the night. Here we obtained supper, lodging and breakfast for fifty-five cents apiece. From Luxembourg we rode to within three miles of Algoma and then turned northward through Forestville and Maplewood to Sturgeon Bay. Here a toll of three cents was charged for crossing the bridge into the city. Outside of Sturgeon Bay a perfect macadam road extends nineteen miles northward. This gave us fine going and we made the most of it, as will be seen from the fact that we covered the nineteen miles in twenty-five minutes.

Near Ephraim one of the other boys had a blowout while traveling at a good clip and was thrown over the handlebars. He escaped with a few bruises. The blowout was quickly repaired and we made fair time to Ellison Bay. We arrived there at 4 o'clock in the afternoon and soon had our camp in shape. That night we slept "like logs" and, all in all, our stay at the bay was a pleasant one, as was the trip for the most part.

Sales Are Booming in Washington

Despite Unfavorable Influence of City Regulations Motorcycle Dealers of the National Capital are Enjoying a Fine Season.

DESPITE drawbacks due to the continued arbitrary enforcement of the local passenger-carrying regulations, which are still being fought in the courts, dealers of Washington, D. C., report large sales. The principal demand is for high-powered machines, although there is some reaction on the part of riders who piloted twins last season, and now lean toward the 5 h. singles. The 4 and 5 h. lightweight machines are very popular in Washington for commercial purposes. Owing to the roughness of the roads just outside of the city the sidecar is not taking hold very rapidly.

Harry F. Seamark, Flying Merkel and Emblem agent, received his Merkel demonstrator only a few weeks ago and has already taken orders for 52 machines, out of which 46 orders called for twins.

Berryman & Williams, agents for the Harley-Davidson, have been giving particular attention to the commercial field and have disposed of a large number of machines of the 5 h. type. Late reports show that the firm had sold 78 of the 1913 models. Of this number 45 were twins and 33 singles.

Howard A. French & Co., under the management of Casper French, have succeeded in disposing of 68 Indians, 48 twins and 28 singles. This firm was rather seriously handicapped for lack of space until its recent removal to its new building.

Osborn & Leishear, have sold forty 1913 Excelsiors, of which only one was in the single class. About a month ago this firm added the Henderson agency to its line and has already disposed of twelve of these machines.

The local branch of the Haverford Cycle Company under the management of Charles H. Cross, has disposed of 30 machines, 25 twins and 5 singles. This firm has been doubly handicapped in that it has not had enough space and also being poorly located. The company is at present negotiating for a new location.

George W. Beal has been directing his efforts to booming the motorcycle as a business vehicle, and has succeeded in placing a number of Thors in some of Washington's leading commercial houses. The majority of his orders have called for singles of the 5 horsepower class.

T. N. Mudd, who recently moved to new quarters on Ninth street, has delivered 11 Reading-Standards of the 1913 type, 8 of which were singles. Lack of space in his present store prevents Mudd from carrying more than a few machines in stock at a time.

The majority of the orders taken by Harry W. Higham, Pope agent, have been for model H machines, but he also has orders for several machines of the other Pope models.

P. M. Corr has sold five De Luxe twins, since his recent acquisition of that agency. Four of these machines were 9 h., while the other was a seven.

BUCK DISTRIBUTORS

REPORTS from the Buck Sales Company, of 211 North Twelfth street, St. Louis, Mo., show that the Simplex sight gauge, for which it is sales agent, is enjoying the same popularity this year as during 1912. P. E. Zimmerman will represent the Buck company in Kansas and J. T. Plimley, of Los Angeles, will handle the product in lower California. Other distributors for the Buck accessory products are: The Motor Car Supply Co., Chicago; The Excelsior General Supplies Co., Chicago; Excelsior Automobile Co., Detroit; Bush & MacDougall, Newark, N. J., and Jenkins & Co., Des Moines, Iowa.

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QUESTIONS and ANSWERS

A MATTER OF LESS FRICTION

CHARLES HYLAND—A single chain drive is used for racing to reduce the friction incident to the use of another chain and countershaft, not to mention the clutch, used on ordinary double chain machines. Racing machines can further be geared higher than touring mounts, hence a single chain with two fairly small sprockets will be satisfactory. If a touring machine was single-chain driven, the rear sprocket would have to have 60 teeth and the front 15, for a 4:1 gear. The chain would be bent very much over the little sprocket at the motor and the rear sprocket would be very large. So a double chain drive is used instead with sprockets of more nearly equal numbers of teeth. To find the gear ratio of a double-chain drive, count the number of teeth on the driving sprockets and multiply them together; then count the number of teeth on the driven sprocket and divide the product so obtained by the product of the teeth of the driving sprockets. Example: the motor shaft sprocket has 12 teeth, the clutch sprocket has 24 teeth, the countershaft sprocket has 20 teeth and the rear wheel sprocket has 32 teeth. Find the gear ratio.

Multiply the drivers together: 12 times 20 or 240. Then multiply the driven together: 24 times 32 or 768. Divide 768 by 240, obtaining the result: 3.2; then the gear ratio is 3.2:1.

CARRYING SPARE SHOE

V. L. NICHOLSON.—There have been as yet no special carriers or boxes for outer tubes or shoes on a motorcycle, and we think that the following will be seen to be a good method. After wrapping the shoe in a leather or fabric casing tie it by straps to the luggage carrier, and both the rear stay and fork on the right side by straps. To sustain the rear part of the tire, take a piece of ⅛ by ¼ in. flat stock and fit one end to the rear fork member so that the piece projects rearwards. Curve the end so that it will partially embrace the tire and slot the end for the insertion of a strap. Tie this strap round the tire and fasten it to the shank of the flat piece. This arrangement of carrier will not interfere with mounting or dismounting.

DOCTORING GASOLINE

QUARRY, N. D.—We hardly like to advise you on the subject of doctoring gasoline, as any addition to a fuel which will bring up its explosive power will injure the motor in the long run. However, if you are willing to stand the extra expense of the "dope" plus renewal of valves and fuel pipes in a rather short time, use the following: Picric acid (in crystals) dissolved in gasoline, taking four ounces by weight of the acid. Dissolve the acid in just sufficient gasoline to cause the dissolution. Of the resulting mixture, use one part by volume to fifteen parts of gasoline. This gives a relatively powerful fuel, with yellowish exhaust and much odor. In course of time it will eat the valve surfaces and render the fuel pipe very brittle. Can you not get naphtha or benzine, even if you have to pay a little more to have it shipped from a distance? It would be much better than the above though not so powerful. But if you should elect to use picric acid, be careful—it is very explosive, and you use it at your own risk.

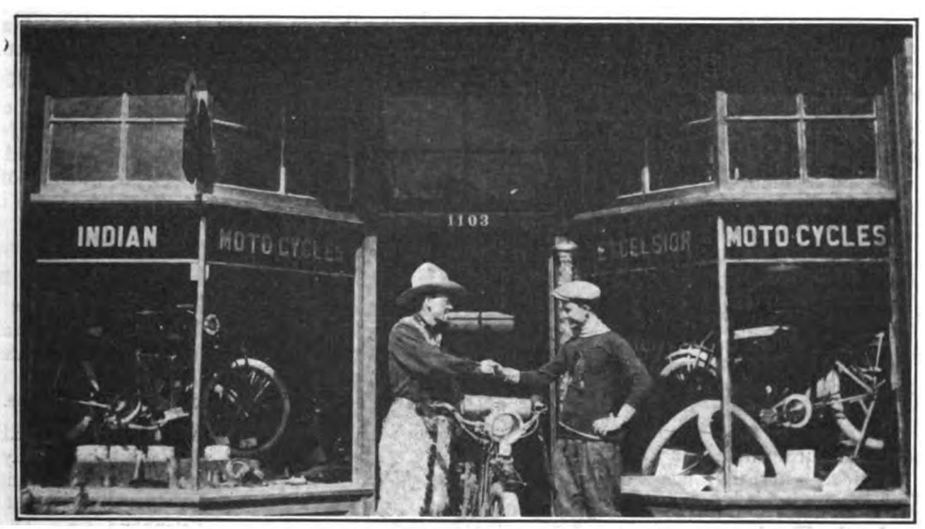
TAKE IT EASILY

A. DE HAART—Getting away quickly is all right in races, but it strains the machine, and is not a sign of good riding, but quite the reverse. The first-class rider takes care of his mount, and makes an easy start; he does not dump the throttle except in emergencies. We suggest that you have the right grip operate the throttle and fit a finger lever under the same grip for operating the valve lifter. You can easily do this yourself. To prevent pinching the arm between the left bar and tank when operating the clutch on a left hand turn, form the habit of reaching under the grip as you make the turn. This is where another position for the clutch lever is superior in the opinion of many riders. See the letter from Stanley Rosebery in the February 20 issue, page 36.

MAGNETO INQUIRIES

B. KROHN—The platinum points on the interrupter lever and contact piece become pitted and burnt and need occasional re-dressing with a smooth file. The fibre block that rides over the steel cams in the contact-maker casing wears also, as do any fibre parts of the mechanism. But the life of these parts is practically one season long at least, and there are magnetos that have never had anything done to them for years.

Magnets gradually lose their magnetism, but not for years, sometimes. They then have to be remagnetized, a job for the makers only. Your other questions had best be answered by reference to some work on ignition, such as that by Prof. Forrest R. Jones, which you can obtain at the public library. We cannot give the space to a discussion of magnetism and transformation of currents to a proper length in this Department. If you cannot get the desired information, write a personal letter to the Editor of Questions and Answers.



A Cowpuncher Leaving the Indian Headquarters of B. K. Bering, in Houston, Texas, for a Trial Trip on His New Gasoline "Bronc."

CYCLECAR ADDRESS

E. W. KING—The makers of the W-G cyclecar are Carlson-Wenstrom Mfg. Co., 2555 North Sydenham street, Philadelphia, Pa. For other makers, see our columns; we will describe such vehicles from time to time as they appear. The Simplex sidecar is made by the Simplex Machine Works, 45th street and Fifth avenue, Brooklyn, N. Y.

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Encouraging Report on Freight Rates

Traffic Committee of M. M. A. Receives Assurance That Better Carload Rating on Motorcycles Will be Forthcoming

BELOW is given the full report of the Traffic Committee of the Motorcycle Manufacturers' Association relative to the freight rates situation, as submitted at the M. A. M. session in Buffalo. It was presented by Arthur Davidson, representing the committee, and holds out promise of early action that will prove satisfactory to the manufacturers. The report follows:

"Mr. Duggan, of the Hendee Mfg. Co., and myself, representing the Harley-Davidson Motor Co., and Motorcycle Manufacturers Association, appeared during the past week before the Western Classification Committee (which is being held at St. Louis, Mo.), for a carload rating on motorcycles of 'first-class' throughout Western Classification Territory. Carload classification at the present time is one and a half times first-class, or the same as is applied to less than a carload, except where commodity rates are in effect; namely, to California, Pacific Coast terminals and to Denver. The rate at the present time to California and Pacific Coast points is $4 per cwt. on a carload basis, and $4.50 per cwt. for less than a carload.

"We submitted to the Committee facts showing why we should have carload rating, giving the amount of business being done by members of the M. M. A., stating Interstate Commerce rulings, the amount of minimum we could stand, weights, sizes, dimensions of motorcycles, and various other points. Regarding the minimum, they asked if we would be satisfied with the 12,000-pound minimum and we answered in the affirmative.

"We have assurances from the majority of members of the committee that our petition will be acted upon favorably when they go into executive session, which will be just as soon as all petitioners are heard. It will probably be two or three weeks before we will hear their decision, as there are hundreds of petitioners still to be heard.

"Below we quote the saving that will be effected on shipments to various points, should our petition receive favorable consideration:

"The rate at the present time from eastern shipping points to California and Pacific Coast terminals is $4 per cwt., minimum 15,000 pounds; under the new rating it would be $3.70 per cwt. from Springfield, Mass., with a minimum of 12,000 pounds; from Chicago, Milwaukee and Jefferson, Wis., $3.40 per cwt.; Toledo, Dayton and Middletown, Ohio, $3.50 per cwt.; Minneapolis, $3 per cwt.; from Detroit, $3.50 per cwt.

"With a 12,000-pound minimum a carload will average between 35 to 45 machines. This will enable many manufacturers to offer shipments in carload lots. Should our petition be acted upon favorably, later on we will deal with the Transcontinental Lines for a still lower commodity rate on motorcycles. Commodity rates are always lower than the class rates. As soon as we hear word of the decision due notification will be sent to all members of the M. M. A."

BAKER ON FINAL LEG

ERWIN G. BAKER, the Indianapolis speedster, is now on the last leg of his 12,000-mile motorcycle trip, made for the purpose of testing United States tires. On reaching San Pedro, Cal., after touring south from Atlanta to Florida and thence shipping to Cuba, which island he crossed on his Indian before sailing to Jamaica and Panama, he had covered 9,300 miles, 4,800 of which were reeled off on his machine. He was using the same tires fitted to his machine when he left Indianapolis and he did not change them when leaving Los Angeles for the trip to the United States Tire Company's factory at Indianapolis. The trip from Los Angeles is being made by way of the old Santa Fe Trail.

SCHMIDT'S MILEAGE RECORD

SEVENTY THOUSAND miles on a motorcycle is the record of John M. Schmidt, of Wauwatosa, Wis. Schmidt has ridden his motorcycle since 1908, and says that the machine is still in good condition. According to his statement he never obtains less than 75 miles per gallon of gasoline.

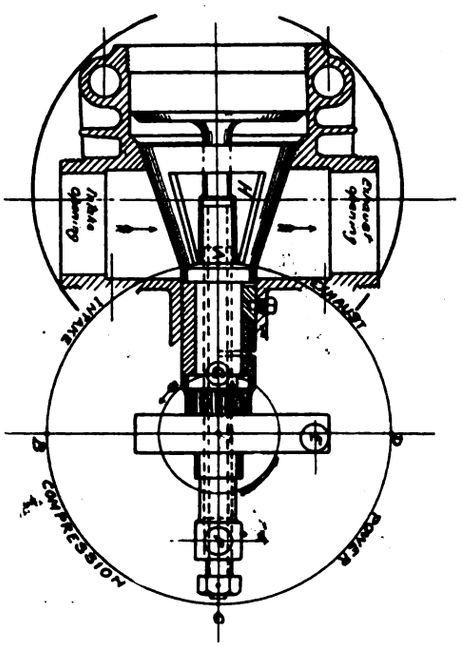
A REPORT FROM ST. LOUIS

BY way of showing the remarkable increase in the popularity of the motorcycle in St. Louis, one dealer who has been in the business for nine years makes the statement that during his first year he sold just three machines, whereas his sales for 1912 totaled 300.

H. C. FULLER, former agent for the Flanders machines, has taken the Tacoma (Wash.) agency for the Yale motorcycle.

PHANTOM VALVE MECHANISM

IN THE accompanying illustration is shown a top view of the valve mechanism that features the Phantom motor, produced by the North Chicago Machine Company, Chicago, Ill. Referring to the diagram E is a steel gear rack, meshed with a gear cut on the end of the oscillating sleeve cone valve H. F is a hardened steel bushing, bored to a sliding fit on the poppet value stem and with a lateral movement slightly greater than the lift of the poppet value. It is held in contact with the collar on the value stem at H for opening the poppet valve by a coil spring—encased and not shown in the drawing. G is connected to both rack E and bushing F by two connecting rods. The oscillating cone valve has only one port opening for both the intake and exhaust openings into the cylinder chamber; this valve oscillates at an arc of 180 degrees forward and backward. These moving parts are operated by a vertical shaft (not shown) which revolves at the center of the large and small circles at half the speed of the main shaft of the motor.



WARNING FOR BROOKLYNITES

SEVERAL speed traps have been set for Brooklyn (N. Y.) riders along Bedford, Bushwick and Hillside avenues. During the last few weeks several riders have been caught and riders in this district will do well to watch their speedometers.

A FLANDERS MISSING

A NEW Flanders motorcycle, motor number 3005, was recently stolen from the Werner Motorcycle Garage, of 532 Main street, Passaic, N. J. The machine was equipped with Old Sol lamp and a horn. Joseph B. Werner offers a reward for information leading to its recovery.

MOTORCYCLES TO REPLACE AUTOS

FOUR new motorcycles, of the twin class, are to be purchased by the Department of Safety, of Columbus, Ohio, for inspection work. The Municipal Department of the city will also equip the inspectors of the Building Department, now using automobiles, with motorcycles.

DEPUTY RIDES A POPE

T. A. HILL, deputy sheriff of Madison County, Tennessee, and collector of Jackson, Tenn., recently proved the value of his motorcycle by capturing Henry Burns, a negro fugitive. Hill rides a lightweight Pope, and in order to capture Burns he was called upon to cover some very rough roads and climb a number of steep grades.

PENNSYLVANIA ROAD BILLS

TWENTY-ONE separate bills for new main highway routes, in addition to those included in the act of 1911, have been introduced in the present Legislature in Pennsylvania and are in the hands of the Public Road Committees awaiting action.

BABB "COMES BACK"

WALTER BABB, one-time bicycle champion of northern New Jersey, recently entered a motorcycle race held on the Parsippany turnpike, just outside of Paterson. He covered the 2½-mile course in 2 minutes and 55 seconds riding a Pope "Big 4." Harry Scott on a Thor 4 took second place.

YALE IN RHODE ISLAND

THE Combination Ladder Company, of Providence, has taken the Rhode Island agency for the Yale. This company already handles a number of lines aside from that implied by its name.

A. L. SPINDLER, 1330 Michigan avenue, Chicago, newly appointed Pope distributor for Cook county, has received an order for four lightweight Popes from the Chicago Telephone Co. The telephone company has been using twin machines but believe the single will answer its purpose.

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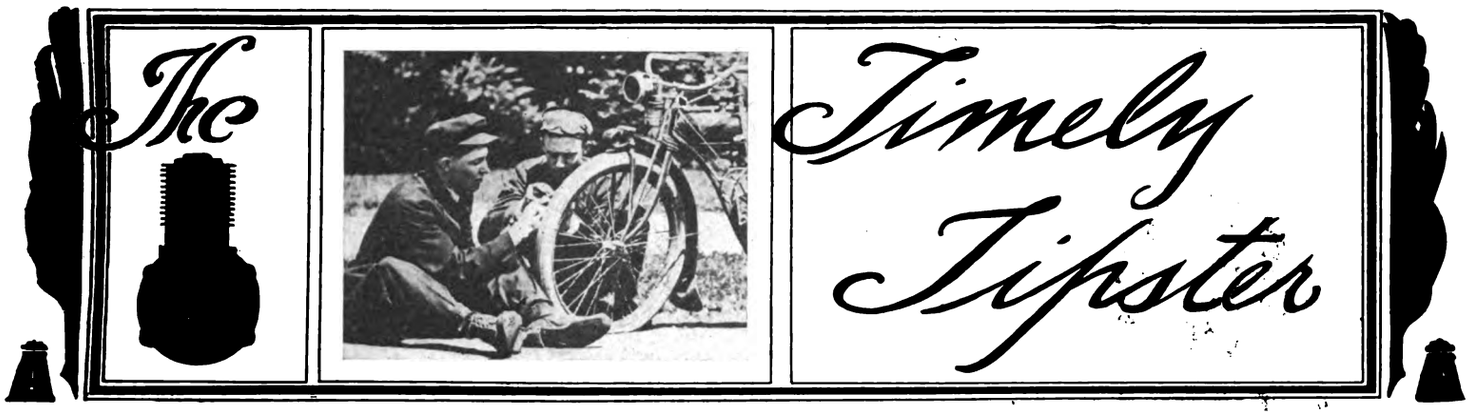


A DAY or two ago Arthur Chapple dropped in for a chat about racing affairs in general, and the Brighton Beach motordrome in particular, and announced that he was preparing to open a training school for speedsters at Brighton. This scheme appears to have its good points. I am strong for it because of the fact that it will tend to keep incompetents from rushing blithely in where angels wouldn't think of treading. If it does this it will be well worth while, and Chap's work as schoolmaster will be fully justified. There are about thirty applicants for racing honors already on the Brighton list, every one of them long on enthusiasm but short on experience, and it will be up to Chap to see that the speedsters "know their lessons" or go without a diploma.

No Call for Short Runs

THE Debonair Chapple had just departed when Johnny Constant, the amateur champ, breezed in and draped himself over a corner of our desk. Constant is devoting a good deal of his time these days to boosting plans for the annual double-century run of the Invincible Club of Brooklyn, which is scheduled for May 4, with May 11 as a rain date. Accordingly he launched into a discussion of the club's arrangements and raised the question of whether average riders prefer single or double centuries on the road. He gave figures to prove that entries in the 100-mile division of the last Invincible run were very few, while the 200-mile squad was a big one, and accounted in this way for the fact that the single century division has been left out of the present arrangements. What's the answer? Does the average motorcyclist really yearn for a 200-mile run at the opening of the season, or does he simply object to being classed as a one-hundred-miler?

Muller Wants a Record

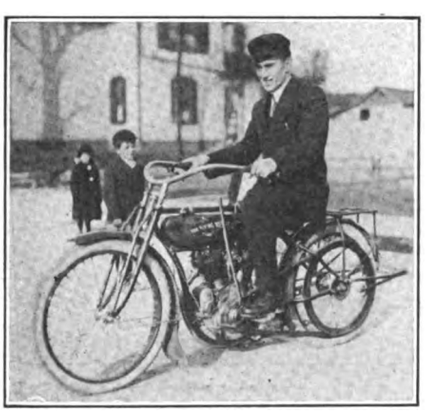
HAVING discussed this question and fourteen others, the Brooklyn meteor went his way, and a moment later W. J. Muller, a youngster who has been hounding old Father Time pretty consistently for several years, dropped in to remark that if some one doesn't give him a chance to work on a track very soon he is likely to trundle out his machine, run amuck on one of the New York boulevards, and be arrested with at least fifty overspeeding charges against him. Muller has been tinkering with an Excelsior motor for some time past, and now has it tuned to the pitch where he feels it is capable of a mile in thirty-nine. He is awaiting the arrival of a new carbureter, of which comparatively little is known in motorcycle circles, and is confident that it will work wonders. Muller's early training was obtained in automobile racing camps, and he has a damaged right arm and a silver plate over his floating ribs on the left side to prove that he really has been over the hurdles.

Newark Outlook Is Bright

SPEAKING of racing, it is worthy of note that followers of board track affairs in Newark, N. J., consider the outlook bright for early meets on the saucer at Electric Park, and a recent announcement was to the effect that Paul Derkum would again be in charge. The company which was incorporated some time ago to take over the track has expressed willingness to erect any additional safeguard that may be regarded as necessary by the authorities, and there is a growing conviction among those in power that the Electric Park saucer is safer than some in larger cities where no ban has been placed on racing. In other words, there is a feeling that motorcyclists of Newark and vicinity have been dealt with too harshly in the adoption of the ordinance prohibiting motorcycle racing and that some concessions should be granted, provided every possible precaution is taken to guard both racers and spectators. Try-outs are promised on the saucer within two weeks.

Individual Sidecar Designs

I HAVE been much interested of late in reports from enthusiasts who are designing their own sidecar bodies, and several rough sketches that have come to hand show ingenuity and a keen regard for the general attractiveness of the outfit. All in all, the designing fever is a good symptom. It does not in the least reflect discreditably upon standard sidecar models, for manufacturers certainly could not be expected to cater to all the ideas that suggest themselves to riders, and the fact that a machine owner wishes to embody a kink or two of his own in a sidecar body simply proves that he is genuinely interested. When he reaches this stage he is a full-fledged member of the brotherhood.



Arthur Andrews, a Full-fledged Flying Merkel Booster of Toronto, Ont.

As a rule, the amateur designer of a sidecar body simply works out a rough plan and submits it to a sidecar manufacturer, with instructions to have it followed as economically as possible, but now and then I encounter a chap who is determined to carry his individuality beyond this point. I was walking with such an enthusiast in Brooklyn a few days ago when he pointed to a pile of ash-can covers in front of a hardware store and exclaimed: "By jove, there's just what I've been looking for!" He whipped out a rule and found the diameter of the cover to be nineteen inches. "Just the size, too," he continued. Then he explained. He had a special sidecar body under way and was desirous of finishing the rear with some sort of a circular metal drum to give a bull's-eye effect. If he had not discovered the ash-can cover he would have been obliged to make this piece; it would have cost him three times the price of the ready-made cover and would not have served the purpose as well.

Trials for Mud-Guarding System

A SUGGESTION that trials of efficiency and wind resistance in mud-guarding be conducted under official supervision is meeting with approval in England, and while it promises to be a bit difficult to determine the relative value of the competing systems there is no doubting the timeliness of the idea. Even on this side, where we have an unenviable reputation for mudlarking, there is a growing tendency to protect the machine and the rider from mud and water splashes and it would seem that standard mud-guarding devices offer room for improvements. It is to ascertain how far protection may be carried without encumbering the mount unreasonably and inviting undue wind resistance that the Britishers contemplate the tests.

ON MASSACHUSETTS ROADS

REPORTS from Massachusetts are to the effect that roads in the Bay State are in excellent condition and that as a result motorcycling is at its best. W. F. Halliday, manager of the New England Motorcycle Company, 178 Columbus avenue, Boston, agent for Harley-Davidson and Pope machines, states that the highways were never better and that riders in general are taking advantage of this fact with unprecedented enthusiasm. Mr. Halliday was instrumental in organizing the Bay State M. C., which is arranging for a number of touring events.

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COMBINED RUN TO LA PLATA

AT THE last meeting of the National Capitol M. C., of Washington, D. C., Charles Cross suggested that the club hold an open sidecar run in May. The plan met with approval as many of the members are contemplating purchasing sidecars. Captain W. F. Throop announced that a run will be held to Ridgeville, Md., the first Sunday in May. It will be an open event and riders should have their applications in by the first of May. The opening of the 1913 touring season for riders of the National Capitol was marked by a combined run to La Plata by the National Capitol and the Washington Motorcycle clubs on Sunday, April 6.

A JAR FOR MUELLER

NOT long ago Louie Mueller, the Indian chieftain in Cleveland, Ohio, sent a boy out for a cigar and gave him two of the new Indian-head nickels with which to pay for it. The boy received the cigar, threw the nickels down on the counter and started for the door.

"Hey," shouted the storekeeper, "come back here. You can't work off any of Louie Mueller's advertising stunts on me; I want regular nickels or you don't get the cigar."

In vain the lad tried to explain that the nickels were fresh from the mint and that the Indian head was an accepted design. He was obliged to trot back and break the news to Mueller. "Well, I'll be gum-swiggled," remarked the chieftain, as he gave the boy two old-style nickels and started him out again for the cigar.

EXCELSIOR IN OHIO

SUB-AGENCIES for the Excelsior, as placed by the Franklin Cycle & Supply Company, of Columbus, Ohio, are reported as follows: O. E. Neff & Son, Lancaster; W. J. Grube Machinery Co., Delaware; McCoy Bros., Circleville; Francis G. Cavandish, Logan; E. J. Chenoweth, London, and A. M. Grant, of Ashley. The Franklin company is distributor for the Excelsior in twenty counties in central and southern Ohio.

NEW BELT-DRESSING

SAM D. HANNA & CO., of Yorkshire, Ohio, call attention to the fact that they are now marketing Duncan's belt dressing, a compound that is making friends rapidly among riders of belt-driven motorcycles. The compound is a scientific preparation, invented and patented by an engineer of forty years' experience. It is being supplied to the motorcycle trade in two sizes, retailing at twenty-five and fifty cents. Either size is convenient for the toolbox, and as the compound is not a liquid it may be carried with safety. It is sold under a positive guarantee.

PITTSBURGH M. C. RUNS

SEVERAL members of the Pittsburgh (Pa.) M. C. recently made a Sunday run to Greensburg. Despite the fact that a heavy rain had fallen the roads were in fair condition. A run to Ligonier was also held by the club.

PROGRESSIVE ADVERTISING

THE PROGRESSIVE spirit of the Chicago motorcycle dealers is exemplified in the manner in which they advertise in the local newspapers. The number of agents who advertise in the Sunday editions runs to over twenty every week. Two of the dealers, Edwards & Crist Company, selling the Indian, and C. H. Lang, the Harley-Davidson distributor, have also been spending considerable money for bill-board posters of attractive design.

OPENING SALES CAMPAIGN

WITH the distributing rights for the Thor in fourteen counties surrounding Cincinnati, Ohio, the Motorcycle Service Company, of 1321 Race street, Cincinnati, has entered upon an elaborate sales campaign. The company carries a full line of Thor parts and accessories, and conducts a repair shop.

AN effort is being made by the Sedalia M. C., of Sedalia, Mo., to have an aeroplane exhibition in connection with the Decoration Day races to be held by the club.

SPLITDORF SERVICE STATIONS

O. J. ROHDE, treasurer and manager of the Splitdorf Electrical Company, of New York, has returned from a very successful trip abroad where he has established a European branch and service station with headquarters at 6 City Road, Finsbury Square, London, E. C. Mr. Rohde arranged for the installation of every device for testing and repairing ignition Splitdorf outfits, and the carrying of a full line of spare parts, magnetos, coils, spark plugs and other products of the Splitdorf company. The station is managed along the lines as the New York service department.

The company is to open a similar branch for the southern territory of this country, with headquarters in Atlanta, Ga. This branch will be opened within sixty days, and shortly afterward a branch for the Canadian trade will be established in Toronto.

NEW PURDY PRODUCT

THE PURDY BROS. COMPANY, of Chicago, makers of the Purdy exhaust horns and foot pumps, will bring out a new electric lighting outfit in a short time, it is announced. This firm also intends to experiment with a design of cyclecar which may, if it proves successful, be marketed in 1914.

The company has been incorporated with a capital amounting to $10,000, and has taken possession of new store premises at 939 West Fifty-fifth Boulevard, Chicago, where an agency of the Harley-Davidson will be conducted.

BERLING MAGNETO ON PIERCE

ANNOUNCEMENT is made by the Pierce Manufacturing Company, of Buffalo, N. Y., that all 1913 Pierce machines will be equipped with Berling magnetos, manufactured by the Ericsson Manufacturing Company, of Buffalo. After thorough tests the Pierce company reports excellent service from the Berling magneto and states that it meets all expectations.

LISTERS LAND CITY ORDER

LISTER BROS., agents for the Harley-Davidson in Cleveland, have just filled an order for six machines for the Cleveland Water Works Department. Four were singles and the two twins were equipped with tandem attachments.

A TEST OF POWER

L. E. BEEMER, of the L. E. Beemer Repair Co., agent for the Indian in Sidney, Ohio, forwards the accompanying photograph showing a 1913 twin Indian pulling a load of 1,509 pounds. The machine pulled this weight up a considerable grade in Sidney, arousing much favorable comment.

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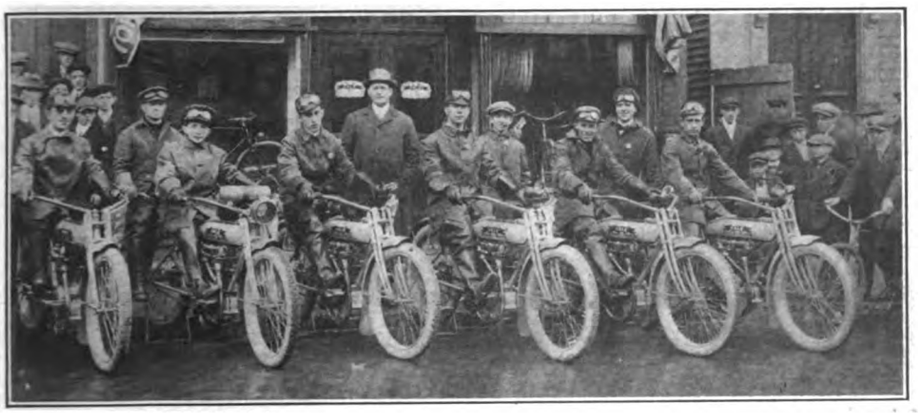

MECO STAFF IS BUSY

FROM the busy headquarters of the Motorcycle Equipment Company, Hammondsport, N. Y., comes the report that the plant is being operated under heavy pressure to meet the demands for "Meco" accessories. It is stated that an unusual demand is being found for the Meco belt shackle and the Meco lamp. The former is a flat-belt connector of such compactness and simplicity that it may be carried in a repair kit and used without the slightest difficulty by even an inexperienced rider who encounters trouble on the road. Three of the shackles are sold for twenty-five cents.

The Meco lamp has a five-inch Mangin mirror lens. It is the product of a reliable manufacturer and was sold to the Motorcycle Equipment Company in 1,000 lots at a price so low the company can afford to place the price at $4.25, delivered anywhere in the United States. The Meco folks call attention to the fact that they prepay transportation and guarantee immediate shipments. They report a 100 per cent. increase in business for the present season.

PREST-O-LITE CHARGING PLANTS

USERS of Prest-O-Lite tanks in and about Des Moines, Iowa, will be interested in the announcement of the Prest-O-Lite Company that a new branch office and charging plant has been established in Des Moines. The location of this branch not only enables the company to handle its increased business more effectively, but affords greater shipping and exchange facilities to all dealers handling Prest-O-Lite tanks in Iowa and adjacent territory. The company has had a branch in Kansas City, Mo., for some time, and the establishment of a charging plant in that city, which will be an event of the near future, has been made necessary by increased sales and exchanges in surrounding territory.

MOTORCYCLE TIRE "JIMMY"

ONE of the newest motorcycle accessories to attract the attention of riders is a tool sold under the name of "Tire Jimmy," and marketed by the Motorcycle Tire Jimmy Co., of St. Marys, Ohio. As the name implies, this tool is designed to facilitate the placing or removal of a tire. Its value is four-fold: it may be used to loosen a tire when the bead is struck in the eye of the rim, it is used in the actual operation of removing the casing, as a tool with which to run on the tire and as a wrench to handle the valve stem nut. Realizing that too much time was lost in putting on tires and removing them, the organizers of the new company perfected the "Jimmy" and made it of such size that it can be carried conveniently in an ordinary toolbox.

Several encouraging orders have been received since the company was launched on April 1, H. D. Capron, the hustling manager of the Consolidated Manufacturing Company's store in Toledo, being among the first to place an order for a hundred. A money-back guarantee goes with each tool.

NEW CHICAGO AGENCIES

THE LAKE VIEW CYCLE COMPANY, 3255 North Clark street, Chicago, has taken a local agency for the Black Hawk.

Stauber & Leitner, Montrose and Evanston avenues, Chicago, have secured a subagency for the Dayton. Their initial order was for a carload of machines. Tegtmeir Bros., on the South Side, have also secured selling rights for the Dayton, in addition to their Yale agency.

J. P. Garner, the Chicago distributor for the Henderson, has moved into fine new premises at 1120 Michigan avenue, in the heart of Motorcycle Row, and is already working at top speed to handle his growing business.

A YALE SQUAD

LOWELL, MASS., is well supplied with motorcycle enthusiasm, and the riders who appear in the accompanying photograph do their part to keep things on the move. They are members of the local club who posed for the camera man prior to a recent Sunday run.

FINKLE IN PITTSFIELD

JAMES A. FINKLE, motorcycle and sporting goods dealer, formerly of Dalton, Mass., has moved his business to Pittsfield, where he has opened a spacious store at 136 Penn avenue. He has contracted for the Indian agency for Pittsfield, Dalton and Hinsdale, and will also carry a complete assortment of parts for the Indian and Emblem machines. Finkle has a completely equipped vulcanizing plant and is also prepared to do brazing and machine work of every description.

PRODUCTION RECORDS BROKEN

ALL records were smashed at the Hendee plant during the month of March when 5,348 Indians were built and shipped in 26 working days. This is an average of 205 machines a day and in order to turn out such a quantity the immense plant was worked at full speed with more than 2,700 employees in action.

CARLOAD OF MERKELS LOST

THE MOTOR SALES COMPANY, representing the Flying Merkel in Chicago, has not yet received a shipment of machines which left the Middletown factory on April 6, or the day before the deluge struck Ohio. The railroad can find no trace of the shipment and it is believed that the Yellow Jackets have been destroyed in transit.

TAKES R-S AGENCY

NICHOLAS ROSE, of 32 Main street, Flushing, N. Y., has taken the 1913 agency for Reading-Standard motorcycles for the cities of Flushing, Bayside, Corona, College Point and Whitestone.

IN the accompanying photograph is shown a scene at the junction of the Ohio and Muskingum Rivers at Marietta, Ohio. On the ground floor of the building indicated by the arrow the Yale and Emblem agency was located. The water, when at its highest, was within 18 inches of the third floor. The motorcycles were saved by being moved to the third floor of the agency. Meredith and Wilderman are the Yale and Emblem agents in Marietta. As soon as the water receded they resumed business.

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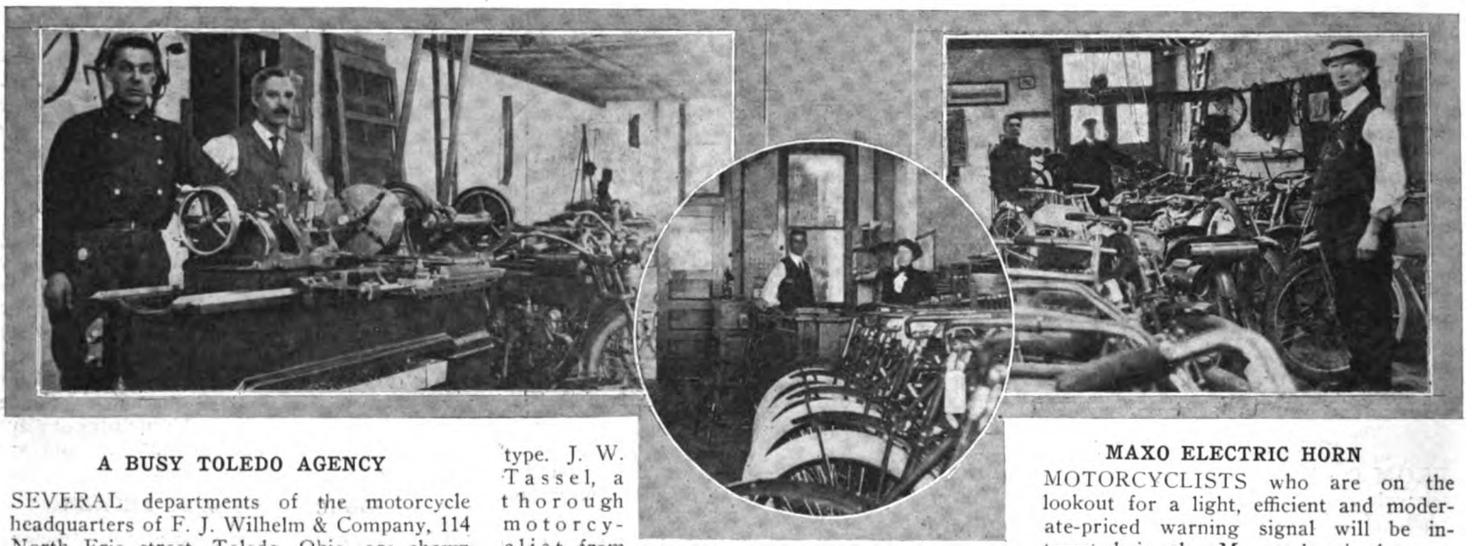
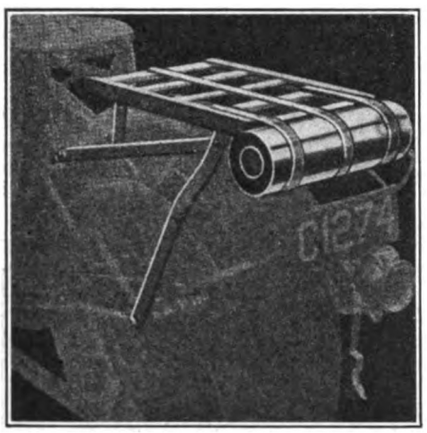


A BUSY TOLEDO AGENCY

SEVERAL departments of the motorcycle headquarters of F. J. Wilhelm & Company, 114 North Erie street, Toledo, Ohio, are shown in the accompanying illustrations. The office and salesroom is 25 by 65 feet and the repair shop, which is directly in the rear of the salesroom, is 25 by 75 feet. The repair shop is fully equipped with machinery of the latest type. J. W. Tassel, a thorough motorcyclist from every standpoint, is in charge of both sales and repair departments. The Wilhelm company has the distributing rights for Thor, Reading-Standard and Pope machines in the five counties surrounding Toledo.

DEMAND FOR "STURDY" LINE

STANLEY T. KELLOGG, of 615 State street, Bridgeport, Conn., reports that orders have been unusually brisk of late for his "Sturdy" specialties for the motorcycle, and that there is a rapidly growing demand



for his improved type of luggage carrier which makes provision for holding a Prest-O-Lite tank at the rear. Some motorcyclists experience difficulty in carrying the Presto tank to their satisfaction, and the Sturdy method, owing to its simplicity and reliability, is finding wide favor. The accompanying illustration shows how the tank is held conveniently on the luggage carrier by three metal straps.

ANOTHER GOODRICH BRANCH

NEW quarters of the B. F. Goodrich Company, Akron, Ohio, have recently been opened in Minneapolis, Minn., at the Glenwood-Inglewood building which has just been completed. The company is using two floors and basement, each 50 feet by 150 feet.

HUMISTON TESTING CARS

LEE HUMISTON, the new record holder, has gone to Indianapolis to become a car tester. It is reported that he has not yet made arrangements to race with any of the motordrome teams on the inter-city circuits.

STRICKLAND WITH ERIE

E. H. STRICKLAND, formerly connected with the Continental Rubber Works, of Erie, Pa., has accepted a position with the Erie Rubber Co., of Erie, as general manager. Previous to Mr. Strickland's taking a position with the Erie company, the firm confined its efforts to jobbing mechanical specialties, but is now branching out and handling a full line of automobile, motorcycle and bicycle tires, as well as accessories and sporting goods. The company has just issued an attractive and well-illustrated 130-page catalog.

VAN CLEEF-GLADSTONE

ANNOUNCEMENT is made that Noah Van Cleef, of Chicago, and Miss Frances G. Goldstone, of New York City, will be married on April 28. Mr. Van Cleef is a member of the well-known firm of Van Cleef Bros., of Chicago. The wedding will be solemnized in New York and will be followed by a honeymoon trip of four weeks to the Pacific Coast.

MERKELS FOR 'PHONE SERVICE

AN ORDER to equip the entire Bell Telephone System of Cincinnati with 7 h. 1913 Flying Merkel chain-drive motorcycles has been received by the Miami Cycle & Manufacturing Company, of Middletown, Ohio. The streets of Cincinnati are unusually rough and the machines will also be called upon to do considerable hill-climbing.

BIG CROSBY EXTENSION

A FOUR-STORY addition, 125 by 200 feet, is now nearing completion at the plant of the Crosby Company, in Buffalo, N. Y. The company will install $60,000 worth of new machinery in the near future to meet the heavy demands of its rapidly increasing business. The plant is now being worked night and day.

MOTORCYCLES FOR PRESS

TWO motorcycles have been purchased by the Cleveland (O.) *Press;* one to be used by the staff photographer and the other for a special reporter. A Harley-Davidson was bought from Lister Brothers, and an Indian from L. J. Mueller.

MAXO ELECTRIC HORN

MOTORCYCLISTS who are on the lookout for a light, efficient and moderate-priced warning signal will be interested in the Maxo electric horn, a product of the Dean Electric Co., of Elyria, Ohio. It is stated that this is the only electric horn made expressly for motorcycle service, and that it meets all the requirements of the experienced rider. The Maxo is designed to operate from three or four dry cells, connected in series, such as are used for battery ignition. It is actuated by a push button, is inexpensive to operate, may be conveniently mounted and is covered by a broad guarantee. The complete outfit, including baked black enamel horn and push-button, connecting cord and instructions for mounting, is listed at $6.50.

McGRAW TIRE & RUBBER CO.

EAST PALESTINE, OHIO.—The McGraw Tire & Rubber Company, of this city, has been incorporated with a capital stock of $1,000,000 to manufacture and deal in tires and other rubber goods, as well as automobile and motorcycle accessories. The incorporators are: James C. Chaplin, C. H. Bolton, John S. Wilson, George Flaccus, E. C. McGraw, Lenore H. McGraw, Robert McGraw, John Morgan, R. F. Taggart, R. B. Taggart, J. C. Chamberlin, H. C. Fraser and C. L. Merwin.

RECEPTION WELL ATTENDED

AN informal reception and entertainment was recently given by the South Shore M. C., of Chicago. Despite the fact that the weather was very bad the affair was well attended.

KENTUCKY ENTHUSIASTS

C. F. CHELF, of Bradfordsville, Ky., and his sister appear in the accompanying picture on their Pope single. This couple may be seen riding over the "none-too-good" Kentucky roads. Chelf states that the little Pope is very popular in his section.

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The Toronto (Ont.) M. C. at a recent reception in its headquarters.

THE "SERVICE" POLICY

"THE WAY for a motorcycle accessory dealer to build up a tire business and to get a fair profit, is to render service," says H. S. Quine, manager of the advertising department of the Goodyear Tire & Rubber Co., Akron, Ohio. "That means, for one thing, to give advice on the care of tires; advise on proper inflation; tell buyers how tires become damaged; point out the need for prompt repairing of any little injury, and supply the means for such repairs.

"The dealer should tell how oil injures tires, and how moisture rots the fabric; show how an injured tire can be easily repaired; how tires which are supposed to be ready for the scrap heap can be made to render hundreds of miles of service.

"There is hardly a line where service counts for more than it does in the tire business. If you simply sell tires, you have plenty of competition. But if you help men cut their tire upkeep, you are going to set a hot pace for your rivals."

A SEVERE TRIAL.

UNUSUAL interest attaches to a letter received a few days ago by the Bosch Magneto Co., from P. I. Haynes, Harley-Davidson agent in Columbus, Ohio. Mr. Haynes states that several Harley-Davidson machines were completely submerged for forty-eight hours when the recent flood was at its height, and that when they were recovered the carbureters were placed in condition and the tanks filled with gasoline for a trial. On the first turn of the pedals the motors started as merrily as if they had never been wet, thus demonstrating beyond question that the Bosch magnetos, with which they were equipped, are in no way affected by water.

EXCELSIOR FIGURES

LATE figures from the Excelsior plant in Chicago show that 156 individual carloads of the "Big X's" have been sent out since January 1. This refers only to carloads and does not include separate consignments of small orders. Whitesell, the Excelsior agent in Los Angeles, is receiving a carload of machines every week, according to the latest bulletins from the plant. Machines are now being turned out at the rate of 135 a day from the Excelsior factory, and it is stated that the total output will break all records for the factory.

MERKEL SALES IN IOWA

FRED J. BARR, distributor for the Flying Merkel in Iowa, has already disposed of 300 of the 1913 models. His contract calls for 600 machines for the season.

POPE SOUVENIRS

IN ORDER that the many motorcyclists annually visiting the Pope Manufacturing Company's factory at Westfield, Mass., may have a souvenir of the trip, the company has decided to give all Pope riders visiting the plant a medal, of the design shown in the accompanying illustration. These medals are suspended on a two-color ribbon of blue and yellow and are very attractive.

MORAN MAKES A CHANGE

G. R. MORAN, formerly chief engineer for Barthel, Daly & Miller, and later executive engineer in charge of the Detroit (Mich.) branch of the New Departure Manufacturing Company, has taken a similar position with the suspension Roller Bearing Co., at its headquarters in Sandusky, Ohio.

MEMBERS of the Dixie M. C., of Roanoke, Va., recently attended the first banquet held at the new clubroom, 10 Salem avenue.

NEW GOODYEAR TUBE

S. A. FALOR, manager of the motorcycle department of the Goodyear Tire & Rubber Company, of Akron, Ohio, announces that a new Blue Streak tube will be added to the line of Goodyear motorcycle goods. Falor states that this tube will be made 20 per cent. stronger than any tube used in a motorcycle tire so far.

MILLER'S NEW CATALOG

ANNOUNCEMENT is made by Charles E. Miller, the well-known manufacturer, jobber and importer, that the company's new catalog is now ready for distribution. The cover design is very attractive and the book is featured by many illustrations.

ROYAL-PIONEER PARTS

FOR the benefit of riders of Royal-Pioneer machines who have been handicapped since the manufacturers discontinued operations, attention is being called to the fact that a large assortment of parts for this make of machine has been obtained by the New York Motorcycle Co., 318 West 48th street, New York.

MEYERS EXPANDS TERRITORY

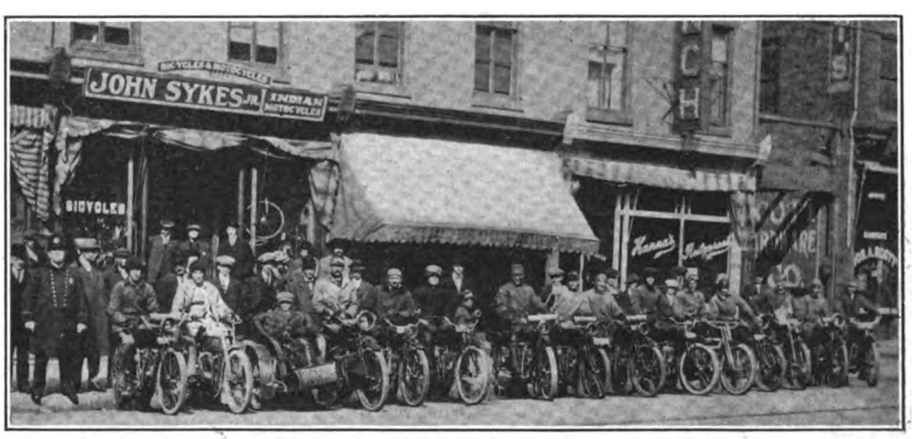
G. R. MEYERS, Indian dealer at Davenport, Iowa, recently invaded Illinois and has now established a branch at Moline. The new store is located at 1525 Library avenue, where a complete stock of standard accessories will be carried.

BARR'S SUB-AGENCIES

AMONG the latest sub-agencies placed by the Barr Motorcycle Company, of East Gay street, Columbus, Central Ohio distributor for the Indian, are the following: Mattox Motor Car Co., Lancaster; R. L. Brehmer, Circleville; George Atkins, Atlanta; S. J. Van Pelt, Washington C. H.; Walden Haffey, Canal Winchester; W. D. Hamilton, Hillard, and Arthur M. Grant, Ashley.

T. M. HART has been appointed manager of the Stewart-Warner branch in Portland, Ore., located at 57 North Broadway. Hart was formerly manager for the company in Los Angeles.

FELIX VAN CLEEF, of Van Cleef Bros., of Chicago, is now on an extended trip through the eastern territory in the interests of the firm, and reports excellent business. He states that the sales of the Van Cleef cements and patches are especially satisfying.



Indian M. C., of Trenton, N. J., starting on a recent run from the store of John Sykes, Indian agent in the Jersey Capital.

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"ALL-IN-ONE" SPARK PLUG

A SIMPLE and compact priming cup is a feature of the "All-in-One" spark plug, marketed by the Frontier Specialty Company, of Buffalo, N. Y., and riders who are troubled at times with hard-starting motors are finding it unusually handy. As the primer is a part of the plug it is always ready for service, and owing to the method of injecting the gasoline the latter cleans the plug in addition to charging the cylinder. Besides providing the priming feature the All-in-One plug shows sturdy construction throughout, is heavily insulated and its users are coming to regard it as a "no-trouble" accessory. The All-in-One is made in eight types.

MORE NEW FEATURES COMING

AGENTS returning from the Harley-Davidson factory, at Milwaukee, are bringing reports of several new Harley-Davidson features which may be placed upon the market before long.

It is declared that a tri-car is being tested and perfected, while word is also given that a two-speed gear for the rear hub will also be brought out. The tri-car will have the two wheels in front supporting the van with the engine and driver's seat in the rear.

TO ITEMIZE EXPENSES

PAUL S. WARE and P. W. Schade, of Dayton, Ohio, are completing plans for a motorcycle trip from their home city to San Francisco. They intend to start as soon as the riding season is well under way and will keep an itemized account of their expenses with a view to ascertaining just how cheaply such a journey can be made on the single-trackers.

BOSCH PRODUCTION FIGURES

REPORTS from the Bosch Magneto Company, New York City, show that 12,428 Bosch motorcycle magnetos were shipped from the factory at Springfield between the first and thirty-first days of March. The Bosch company announces the appointment of a new distributor in Des Moines, Iowa, the Herring Motor Supply Company, of 106 West 10th street, having contracted to handle Bosch products.

NEW ADVERTISING AGENCY

E. J. HEMINGTON, formerly advertising manager of the Goodyear Tire & Rubber Company, of Akron, Ohio, has resigned his position with that company and has launched an advertising agency in Akron. Mr. Hemington has been advertising manager for the Goodyear company for a number of years, previous to which time he acted in the same capacity for the C. H. Yeager Company. His broad

training with these firms and his keen insight into the requirements of the American field qualify him admirably for his new enterprise. He will handle both local and national advertising with headquarters at 410 Hamilton Building, Akron.

SUB-AGENTS FOR THE DAYTON

THE BECKLEY-RALSTON COMPANY, of Chicago, Middle West distributors for the Dayton, have appointed seven sub-agents for that machine in different parts of Chicago, as well as a number of other agents throughout their outside territory.

BACK TO BUSINESS.

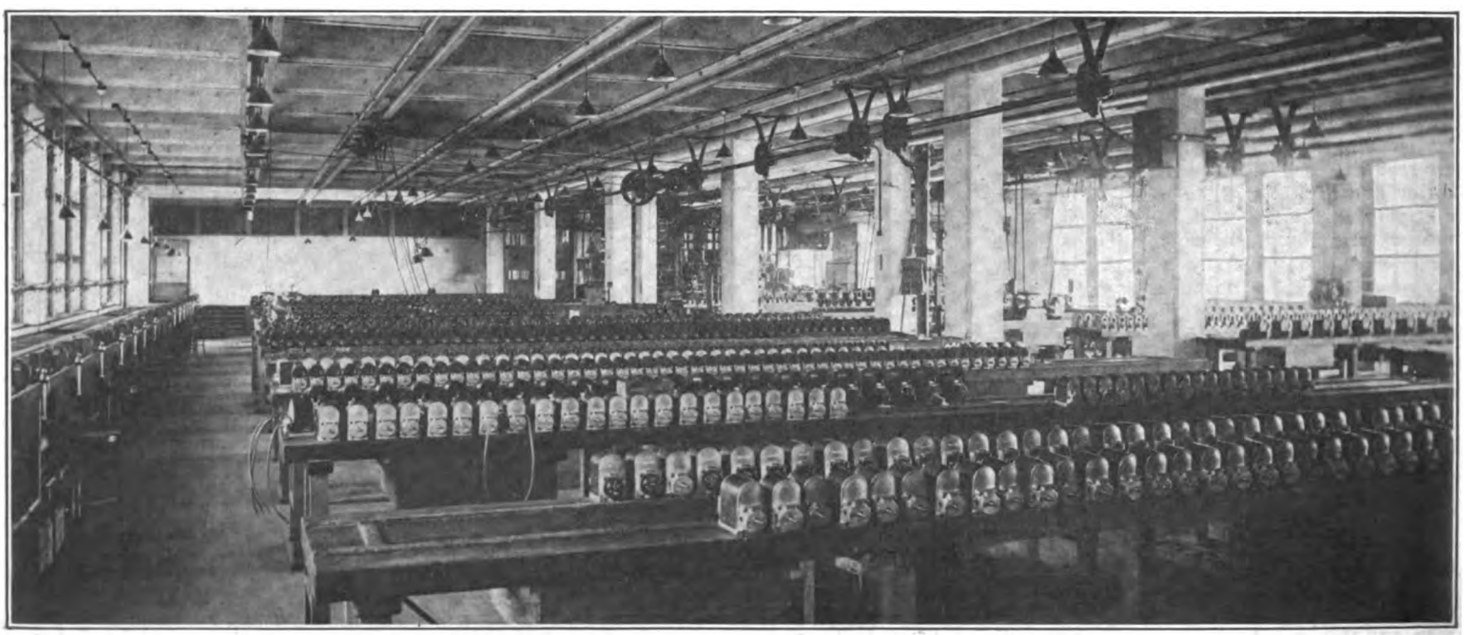
"WHEN the I. W. W. rubber strike was formally declared off by the imported leaders, the last bar to prevent Akron industrial institutions from returning to the normal was removed," said C. W. Seiberling, vice-president of the Goodyear Tire & Rubber Co., in an interview.

"Akron has passed through a time of considerable stress, and indications are that there will be no further labor disturbance for a good many years to come. Workmen in the Akron rubber factories who were temporarily carried away by the Socialistic agitation of the Industrial Workers of the World appear to have returned to a sensible view of the situation, and we firmly believe that conditions in Akron will be better than ever before, though the workmen and the manufacturers themselves have experienced some loss by reason of suspended operations. It now seems certain that the result is for the better of all concerned, though absolutely no concessions were granted by employers to bring about the declaration that the strike is off.

"Through the work in Akron of the State Arbitration Board, and later of the special Probe Committee appointed by the State the world was permitted to know that the Akron rubber factories pay higher wages for equal ability and experience than any other industry in the country; that Akron factories are modern and working conditions as pleasant and satisfactory as it is possible to make them. In our factory we have many men making from five to seven dollars daily who never earned two dollars a day in their lives before they came to the Goodyear plant. It is remarkable that in view of such conditions, the strike agitation could have prevailed so long as it did.

"Now that normal conditions have returned, we feel that we shall have little, if any difficulty in meeting all our orders promptly and in making the big increase in our business for the year that we predicted some months ago."

F. A. BAKER & CO., of 10 Warren street, New York, have lately instituted the plan for making free deliveries by parcel post on orders of motorcycle accessories.



A view of the assembling department at the Bosch factory; over 12,000 *motorcycle magnetos were sent out during March.*

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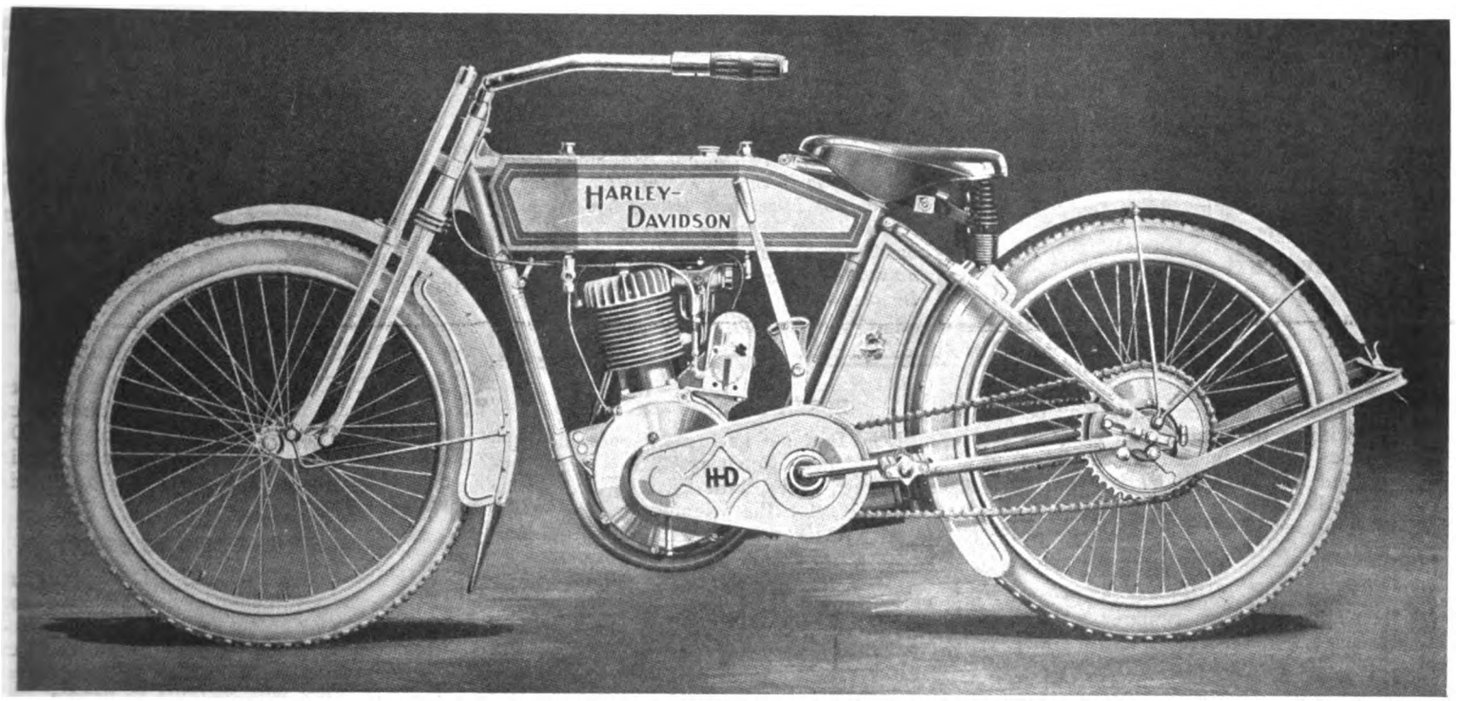

5 Actual Horsepower

THE Harley-Davidson single cylinder "5-35" motor develops 5 actual horsepower at 2460 revolutions per minute. The power output of the "5-35" *averages* 62% more than that of the former 4 horsepower 1912 Harley-Davidson, which was the fastest and most powerful stock single of its day. One demonstration is enough to convince any intelligent buyer that the "5-35" single will outrun and outpull any other stock single on the market, regardless of the manufacturer's horsepower rating.

Harley-Davidson Motor Company

Producers of High-Grade Motorcycles for Eleven Years

398 C Street **Milwaukee, Wisconsin**

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YALE AGENCY IN HAVANA

WHILE on his trip through the south in the interest of the Consolidated Mfg. Company, of Toledo, Ohio, Eastern Representative F. C. Cornish established a Yale agency in Cuba, with headquarters at Havana. The trip, which Cornish has just completed, took him through all the principal cities in Louisiana, Tennessee, Alabama, Florida and Texas. He embarked from the Southern Coast to Cuba, where he remained for several days. Mr. Cornish reports excellent conditions in the South and predicts a good Cuban bnsiness. He says the Islanders are just waking up to the possibilities of the motorcycle.

NEW ANTI-SKID CHAIN

JOHN HAUERWAS, of Milwaukee, has patented a new anti-skid chain for motorcycles. The new chain consists of individual cross chains which fasten to anchors secured to the rim. Both the chains and anchors are removable, although the rim fitting may be left in place without the chains. As many of the small chains may be placed on one wheel as desired, and they take up little space in the tool box when not in use. Samples of the chains were used at the Harley-Davidson factory last winter.

SIGNS FOR MIDLAND TRAIL

DURING the coming summer 800 metal sign-posts will be erected by the Goodrich Tire Company to mark the historical Midland Trail of Colorado, which extends from the Kansas border to Salt Lake City. These will be of material assistance in having the Midland Trail included in the Coast to Coast Highway. The signs, which will mark each mile, will give both distances and altitude.

JONES LETTERS

IN the April 3 number dealers were asked to express opinions as to what policy should be followed by an agent who sees a prospective buyer riding a demonstrating machine of a rival in business. The question was raised whether the second dealer should leave the prospect to the agent who had "discovered" him or go out and make an effort to land the sale himself. About a score of interesting letters have been received, but owing to pressure of other matter it has been found necessary to hold them over until the May 1 issue. In the meantime other letters will be welcomed for publication.

BOSCH RACING PRIZES

FOLLOWING out its broad-gauge policy the Bosch Magneto Company, 223 West Forty-sixth street, New York City, is offering its usual prizes for the winning drivers at the 500-mile International Sweepstakes automobile races to be held in Indianapolis May 30. The prizes are $500, $300 and $200 respectively for the winners driving Bosch-equipped cars.

NEW KENNY HEADQUARTERS

A UNIQUE display feature of the new store of the Kenny Motor Company, of Lafayette, Ind., is that it has four show windows, each 5 by 9 feet in size. R. L. Kenny, proprietor of the company, is a strong advocate of window publicity. The Kenny company handles the Harley-Davidson.

IT IS BRANDT'S VAN

IN a recent issue appeared a short item to the effect that the Troxel company had purchased a Yale machine with side van for delivery purposes, whereas the machine was really bought by "Jack" Brandt, of the Troxel company, for use in connection with a new boot and shoe business in which he has taken an interest.

NEW MICHELIN BRANCH

R. B. TRACY, western manager of the Michelin Tire Company, has opened a new branch at 1106 Hennepin street, Minneapolis, Minn. This branch will take care of the territory north of South Dakota and in Northern Wisconsin in addition to the Minneapolis district.

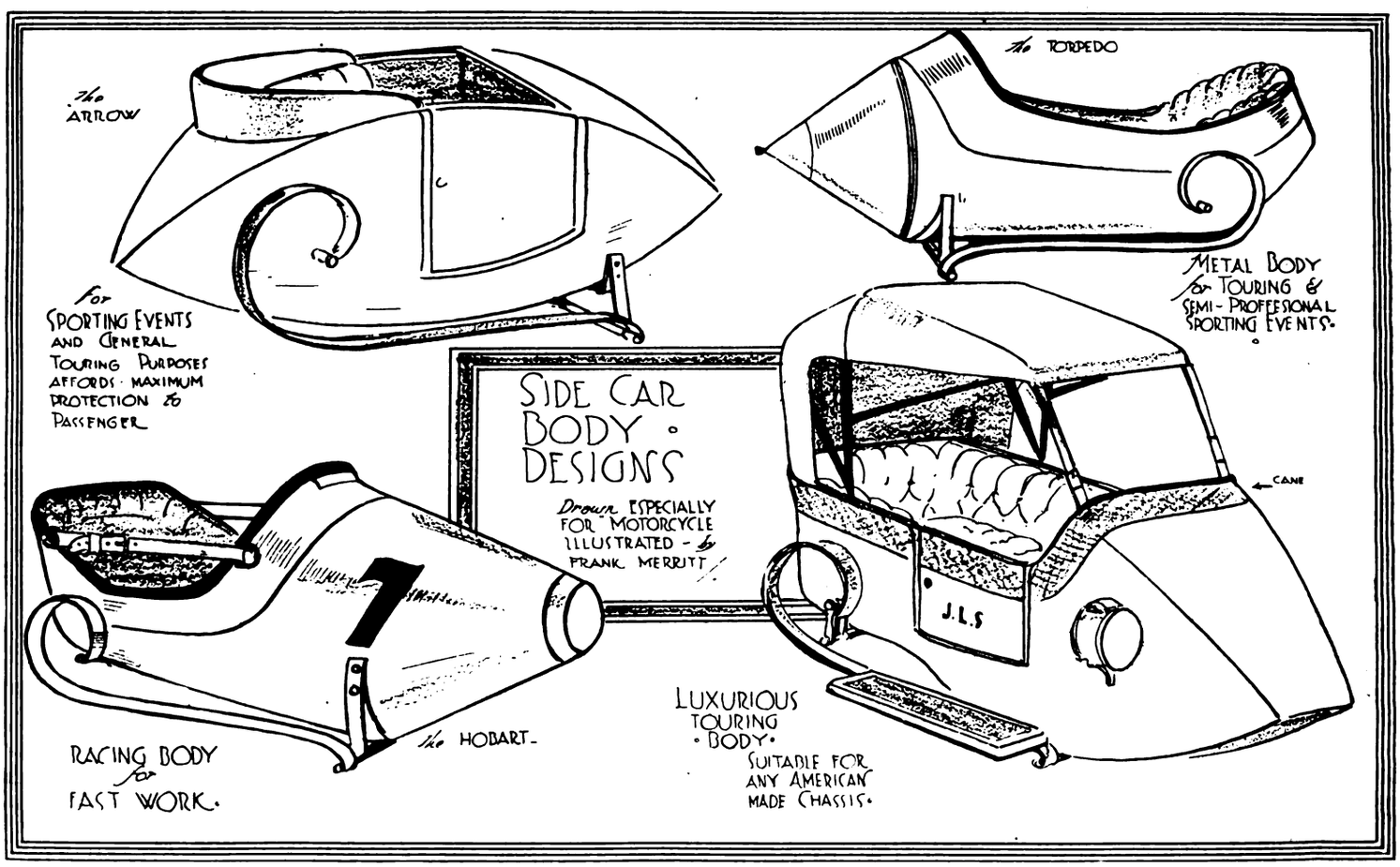
FREE USE OF REPAIR SHOP

MOTORCYCLISTS of Racine, Wis., are rejoicing over the latest announcement of Wadewitz & Sorenson, agents for the De Luxe, who have just opened a new repair shop where all local riders are free to do their own repairing.

GRABILL IN HIS OWN SHOP

SAMUEL B. GRABILL, of Washington, D. C., formerly motorcycle mechanic for P. M. Corr, has purchased the equipment and repair business of Mr. Corr. He will conduct the shop in the same location as heretofore, while Mr. Corr will continue to handle De-Luxe motorcycles and bicycles.

THE National Rubber Company, Alliance, Ohio, recently organized, has authorized the purchase of land and asked for bids for the construction of its new plant.



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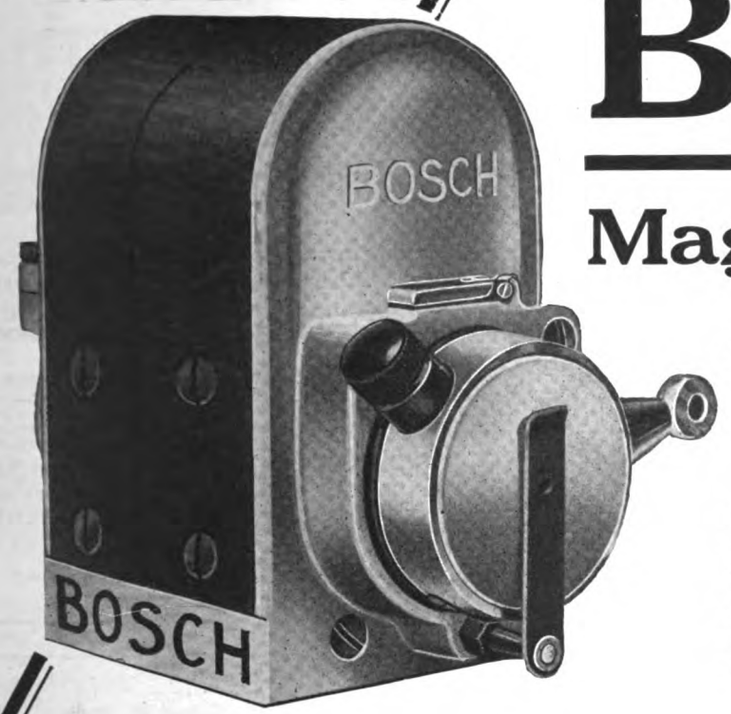

Bosch

Magnetos and Plugs

THE Patented features of Bosch Magnetos and Bosch Plugs make it impossible to imitate those mechanical arrangements that have satisfied over a million and a half motorists.

Insure Your Motorcycle

THERE is no question but that every time you buy, you endeavor to obtain best possible value, whether it is a suit of clothes for wear or a motorcycle for pleasure.

All the better motorcycles are equipped with Bosch Magnetos—the best value in ignition systems. No other is standard, no other would give as good service or as much efficiency as Bosch, even though similar in appearance.

What you desire is value. Don't think of buying a motorcycle, new or second-hand, that is not Bosch-Equipt. The brains and experience behind Bosch Magnetos and Bosch Plugs cannot be copied —cannot be equalled. Insist upon Bosch: only then will you enjoy the confidence that quality equipment affords.

Magneto and Plug Literature
sent gratis on your request

Bosch Magneto Company
206 West 46th Street, New York

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MOTORCYCLE MART

One time, three cents a word; twice, two cents a word each insertion. Agents' cards, five cents per word; two or more times, three cents per word each insertion. No advertisement for less than fifty cents.

FOR SALE OR EXCHANGE

FOR SALE.—Used Excelsiors, Harleys, Indians and others, all in running condition. From $50 upwards. Send for list. Powell Agency, Sodus, N. Y.

FOR SALE.—60 h. Nash gas engine and 100 h. Smith gas producer. This power plant cost us $4,500 three years ago. It is in perfect condition, and we will sell it for less than half its original cost as we have no use for it in our present plant where our power equipment is 1,000 h. Full particulars on request. Harley-Davidson Motor Co., 3702 Chestnut street, Milwaukee, Wis.

MOTORCYCLES CHEAP.—Every motorcycle in stock must be sold this month; need room for large shipment of 1913 Eagles. Write for list "I." American Motor Co., 2724 Michigan avenue, Chicago, Ill.

WANTED—To exchange an Edison Standard Phonograph outfit, consisting of machine, all complete, and 200 records, entire outfit in perfect condition, valued at $125, for a good up-to-date twin or a 4-cylinder motorcycle—will pay the difference in cash. Edward Deinero, Candor, N. Y.

FOR SALE.—1912 Indian 7 h. p twin-cylinder motorcycle, complete with luggage carrier, in good condition. Enameled blue, the nickel plate and enamel is in perfect condition, the tires are in excellent condition, neither tire has been punctured. The machine has always had the best of care and has been ridden by a careful rider; has always had plenty of oil, etc. Owner will sacrifice above complete with tools for $170 cash. Must have the money. The machine will be shipped carefully crated. Henry T. Noll, Pleasant Gap, Pa.

DO NOT OVERLOOK to get our bargain list. Speedometers, $6.50 up; Prest-O-Lite, $8; side cars, $35 up; pennant holders, 20c., postpaid; tandems with seat, $5. Many other bargains. Investigate. Motorcycle Exchange, Schenectady, N. Y.

FOR SALE.—1911 4 h. Indian motorcycle; chain-drive; battery ignition; guaranteed perfect running order. $95. R. B. Douglass, Opelika, Ala.

WANTED.—Brown and Barlow carbureter, with Bowden Control. Box J. M., MOTORCYCLE ILLUSTRATED.

FOR SALE.—Late 1910 model, two-speed Minneapolis motorcycle, completely equipped with luggage carrier, Presto tank, head and tail lamps. Recently overhauled and in good running order. First check for $100 takes it. Look this up. V. J. Smith, 410 11th avenue, S. E., Minneapolis.

1912 PIERCE, 4 cylinder, almost new; guaranteed perfect condition; some 1913 improvements and equipment; 29 x 3 tires; best offer. H. E. Stout, 315 Washington street, New York.

SOL. LAZARUS 216 East 59th Street
(The man with the goods) (at Queensboro Bridge)

BRAND NEW 1913 PIERCE, 4 cylinder; run about 50 miles; cost $400. Sacrifice for $260 cash at once. H. C. W., MOTORCYCLE ILLUSTRATED.

1912 YALE 7 h. p twin. Run 1,000 miles. Studs not worn from tires; like new. Runs like new. Bargain for $180. Will ship c. o. d. for $20 deposit. Address Lock Box 28, German Valley, Ill.

FOR SALE.—M. M. single; Bosch magneto; Spartan V-belt; rear tire new. Run about 500 miles; cost $225. Extras new. Tandem seat and handlebars, $15; Eclipse clutch, $15; 20th Century lamp and generator, $9.50; baggage carrier, $3; $267.50 for $150, delivered and guaranteed. Reason for selling—I don't need it. Address Lock Box 233, Savannah, Ga.

HENDERSON four-cylinder for sale. Perfect condition; run 500 miles; cost $325. Will sell for $200. A. A. Wheat, Wheeling, W. Va.

1912 M. M. TWIN with tandem attachment; good condition guaranteed; $175. George E. Egge, Nyack, N. Y.

FOR SALE.—Ecco spring tandem, Troxel saddle complete; never been used; made for Indian; will fit any 1912 motorcycle. Sent prepaid for $10. T. Brockley, St. Croix Falls, Wis.

FOR SALE.—Indian twin, late 1912 two-speed, ridden 1,235 miles, tires good, recently thoroughly overhauled, guaranteed fine condition, well equipped; $199. G. Leslie Dougherty, Jerseyville, Ill.

FOR SALE.—Twin-cylinder, Bosch magneto, chain driven, tandem, 72-inch wheelbase, convertible frame for lady, also a motorcycle frame with tanks. Hull, Mount Hope, Pa.

3 H. P. READING STANDARD, $50. Write for description. Frank Wolf, Staunton, Ill.

HELP AND SITUATIONS WANTED

MANUFACTURER, WHOLESALER, RETAILER—Do you need an employee who has practical working knowledge of cycle industry? One with fourteen years' actual experience—who successively has been designer and builder of special racing wheels, bicycle and motorcycle agent and repairer, traveling salesman and trade editorial writer. Sales or publicity work on bicycles and motorcycles preferred. Outline your proposition if interview is desired. W. R. Stroud, 65 West 11th street, New York City.

WANTED BY A LARGE MOTORCYCLE MANUFACTURER—A man of practical motorcycle training who understands the mechanics of the motorcycle from A to Z, and has consequently acquired the "knack" or mechanical "turn of mind" that will enable him to take a finished motorcycle and tune it up to concert pitch. One who is capable of suggesting mechanical improvements and working out refinements or expert adjustments that will secure the development of maximum power and speed in a given motorcycle. In short, an all-round motorcycle man, who has the motorcycle "sense" of the rider, the racing man, and the factory expert. Good opening for right man. Address "Manufacturer," care MOTORCYCLE ILLUSTRATED, stating fully qualifications, experience and give references.

WANTED.—Two good motorcycle and bicycle repairmen; also one good inside salesman. A. H. Patterson, 1080 Bedford avenue, Brooklyn, N. Y.

WANTED.—Good experienced motorcycle salesman, to sell Indians in the best territory in the world. Liberal commission. Guy W. Campbell, the Indian Man, Waterloo, Iowa.

WANTED.—Man of business ability with ten thousand dollars to take half interest in a Southern motorcycle jobbing house. Answer A. W. B., MOTORCYCLE ILLUSTRATED.

MISCELLANEOUS

BARGAINS in motorcycle supplies and slightly used motorcycles. Write for particulars. Jewell E. Pierce, Magnolia, Miss.

YOUR NAME AND ADDRESS on 20 choice visiting cards, 10 cents. French beauty watch ornament free. Warfel, Photographer, Cadiz, O.

INSTANTANEOUS, self-curing puncture patch. Agents wanted. Sample $1.00 box by mail, $.75. Special prices for ½ and 1 gross lots. Akron Tire & Accessories Co., Akron, O.

WANTED.—1912 model twin or single in good condition; state full particulars. H. C. Bellingham, Price Hill, Cincinnati, O.

GET COMPLETE OUTFIT for monogramming autos and motorcycles with our transfer letters; small investment, big returns. Write for full particulars. Motorist's Accessories Co., Ashland, O.

CUSHIONS FOR YOUR CARRIER

BUY DIRECT from manufacturers. We prepay. Spring cushion, 10 x 14 in., in Moroccoline Spanish leather, red, tan, green or black, $2 prepaid. Tufted cushion without springs, size, etc., as above, $1.15 prepaid. Send for circular and samples of leather. Geo. Egelberg, 144 South Sixth street, La Crosse, Wis.

DEALER'S CARDS, Etc.

GUS ROTHOLZ, agent for Indian and Excelsior. 1491 Fifth avenue, between 119th and 120th streets, New York. Telephone, Harlem, 2387.

RIVERSIDE MOTORCYCLE GARAGE—Distributors for Reading-Standard and agents for Eagle motorcycles, Simplex side cars and F. N. combination tandem attachment and luggage carrier, complete, $15. 1913 models in stock; also a large number of used machines at bargain prices. A complete machine shop; all repairs and supplies. 533 West 110th St., near Broadway Tel 5615 Morningside.

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B. & C. TWO-SPEED and free engine gears for chain-driven motorcycles of the counter-shaft type Bushnell & Cannon, 1268 East 80th street, Cleveland, Ohio.

THE LATEST AND BEST guaranteed Motorcycle Supplies at lowest prices will be shipped same day your order is received. You get satisfaction in every package. Write for largest Motorcycle Supply Catalog ever printed. Motorcycle Equipment Co., Hammondsport, N. Y.

T. J. SIXSMITH, expert repairing; agent for R.-S., Indian and Excelsior motorcycles. 208 W 100th street, New York.

M.-M. AND EAGLE motorcycles. Two big twins—$240 and $275. Two big singles—$200 and $235. The largest and most powerful line in America. Full line of parts and accessories at George P. Jenkins, Eastern Distributor, 256 West Fifty-fifth street, New York City.

THE NEW YORK Motorcycle Co., 782 8th avenue, New York City. Distributors of Thor motorcycles and parts. We have the only supply of parts in America for F.-N. and Royal Pioneer motorcycles. We also carry a big stock of parts for Indian, Curtiss, M.-M., N. S. U. and R.-S. We have at all times over 50 used machines at all prices We repair broken cylinders, pistons and crank cases. We have the largest and best equipped motorcycle garage in the country and we do reliable repairing.

HAVE YOUR motorcycle overhauled now; expert work, moderate charges; ten years' experience in motorcycle repair work. Parts for N. S. U., Indian and Peugeot. Metropolitan Motorcycle Repair Co., 320 Amsterdam avenue, cor. 75th street, New York. Tel. No. 1001 Schuyler.

T. S. CHIPLEY—The Motorcycle Man, Greenwood, S. C. Distributor of Harley-Davidson motorcycles and parts. We have the best equipped repair shop in the South. All parts for Harleys in stock at factory prices. Terms, cash with order. When in need of parts save time and order from us. Also have tires, belts, oils, etc. Prompt shipments guaranteed. T. S. Chipley, Greenwood, S. C.

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The New Carburetion Method—

MONDEX-HELIX *in combination with any Carburetor*

REDUCES GASOLINE BILLS 25 TO 40%

Try it on your motor and be convinced! But *beware* of imitations! There is positively *nothing* like the Mondex-Helix for carburetting the air with liquid fuel and keeping the carburetting *constant*—thus *increasing* power and flexibility, with a minimum amount of fuel—almost *doubling* the efficiency of low-grade gasoline or kerosene, and at the same time insuring a *steadier* and *smoother* pull.

The Mondex-Helix is the *only* device of its kind that is scientifically perfect and automatic in its action, yet made without any revolving, moving or complicated parts—requiring no attention whatever, and which cannot get out of order. Also it is the *only* device of its kind that may be installed quickly and easily *without* cutting piping, drilling or making any alterations in your machine.

The Mondex-Helix is used and indorsed everywhere where efficiency and economy find consideration.

Simply insert it in the intake of manifold like a cartridge in a gun—that's all!—and the Mondex-Helix will accomplish all and more than we claim for it.

It is an insurance against back-firing. It eliminates carbonization troubles, because every particle of live gas, in passing through the Mondex-Helix, is so thoroughly disintegrated and mixed as to make *perfect combustion* an *absolute certainty*.

It allows quick starting. It makes a noisy or "knocking" motor *silent* and *smooth*. It reduces the tendency to over-heating and *prolongs* the life of a motor to an almost indefinite extent.

Send in your order at once if your dealer cannot supply you. Let us send you our Booklet R.

THE ARISTOS CO., DEPT. "R" 250-8 W. 54th St., N. Y.

When ordering, Address Dept. R. giving make, model of motor or inside diameter of intake manifold. Sent with full instructions, C. O. D. or by mail on receipt of price.

Sizes, 1 inch to 1½ inches $3

Sizes, 1⅝ inches to 2 inches $4

Riders! Here's the "Sturdy" Combination

Three High Grade Accessories for the Price of One!

Never before in the history of motorcycling has there been offered such an unexampled combination of quality features at the price.

The "Sturdy" Combination invariably "gets" the rider. From the dealer's standpoint it is a gilt-edged proposition, as certain of good returns as Standard Oil stock.

A Luggage Carrier, Tandem Attachment and Prest-O-Lite Tank Holder

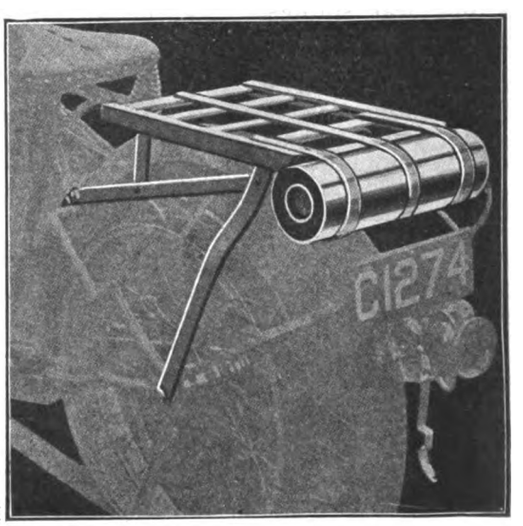
The Sturdy Luggage carrier is the strongest attachment of its kind on the market, and is unconditionally guaranteed. For touring it is extremely adaptable, the 12 x 16 top affording a splendid support for suitcase or baggage.

By strapping on a Sturdy Cushion, the luggage carrier is instantly transformed into an extremely comfortable tandem attachment, with the added feature of tremendous strength and endurance.

The problem of attaching the Prest-O-Lite Tank in both a safe and convenient position is solved by the Sturdy Tank bands, which suspend the tank at rear of carrier, over the tail lamp, both a logical and graceful position, as will be noted from the illustration.

Then, last but by no means least, the price for the Sturdy Combination Luggage Carrier, Tandem Attachment and Tank Holder, including the Sturdy Cushion with patent straps..... **$6.00**

Dealers—Write for our exclusive agency proposition. Now.



STANLEY T. KELLOGG 617 State Street Bridgeport, Conn.

DISTRIBUTOR FOR EXCELSIOR AUTO-CYCLES in Connecticut, Rhode Island and Eastern New York State

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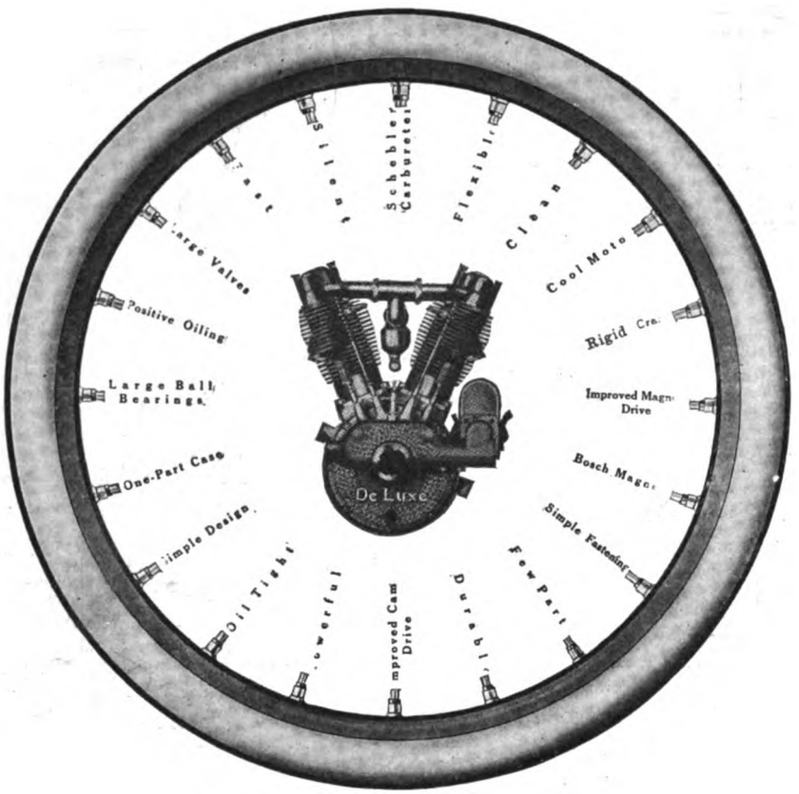
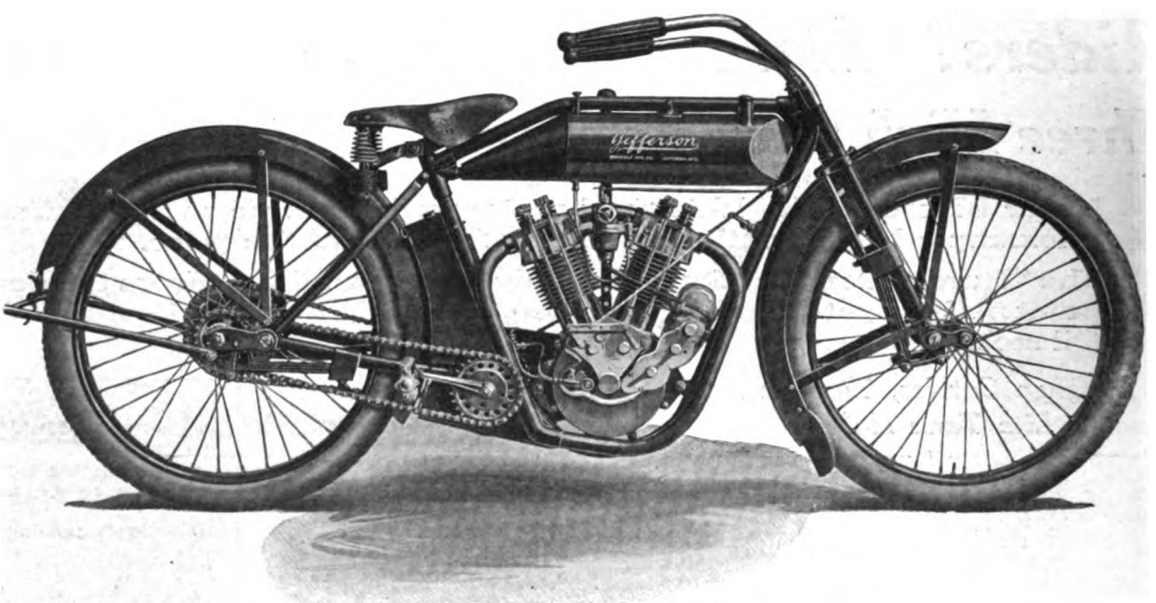
Like the Spokes in a Wheel, DeLuxe Motorcycle Motors Radiate Good Points.



THE F. W. SPACKE MACHINE COMPANY

Indianapolis, Indiana, U. S. A.

Boys, the Jefferson is There!



Just look at it! Note the automobile leaf springs, front and rear—the clean-cut powerful motor, with overhead valves, its perfect balancing. Note the absolute absence of superfluous parts, the simplicity of the grips, without clutch levers of any sort. Do you know what that stock motor can do, **without** special preparation or "tuning up" of any kind? Oh, only about 78 miles an hour! Don't you recognize the lines of the Jefferson? It's the old P.E.M. under a new name; that little single whizzer that beat twins in six races, winning 37 out of 47 races which it entered. Yep. That's the same machine, only doubled in speed and power.

Our catalog tells the rest. For the love of the Open Road, get it.

Waverley Mfg. Co., Jefferson, Wis.

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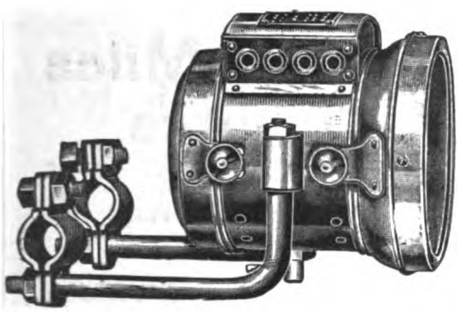

MOTORCYCLE SEARCHLIGHT No. 102
Showing Back Closed

A Short Straight Talk
on
A Long Straight Light

You wouldn't use a hose with a spray nozzle for throwing a long straight stream.

You **shouldn't** use a lamp with broad, scattered rays for discovering danger ahead—and remember, size doesn't always mean efficiency. You need

20th Century Lamps
(Motorcycle and Bicycle)

the handsome, efficient searchlights with the LONG DIRECT RAYS. Danger can't dodge them. Tear out the coupon and learn the rest.

20th Century Mfg Co

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Newark, N. J.

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Send me your 1913 Catalog.
Name .....
Address .....

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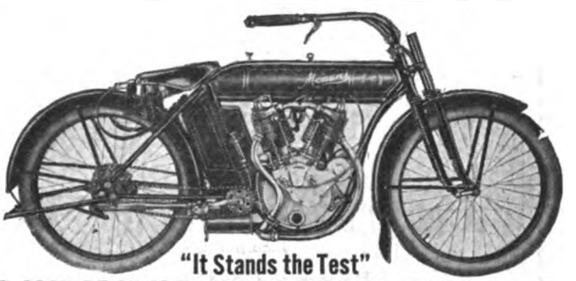
Oilproof
VACUUM CUP TIRES

PENNSYLVANIA RUBBER COMPANY

Branches—Coast to Coast JEANNETTE, PA.

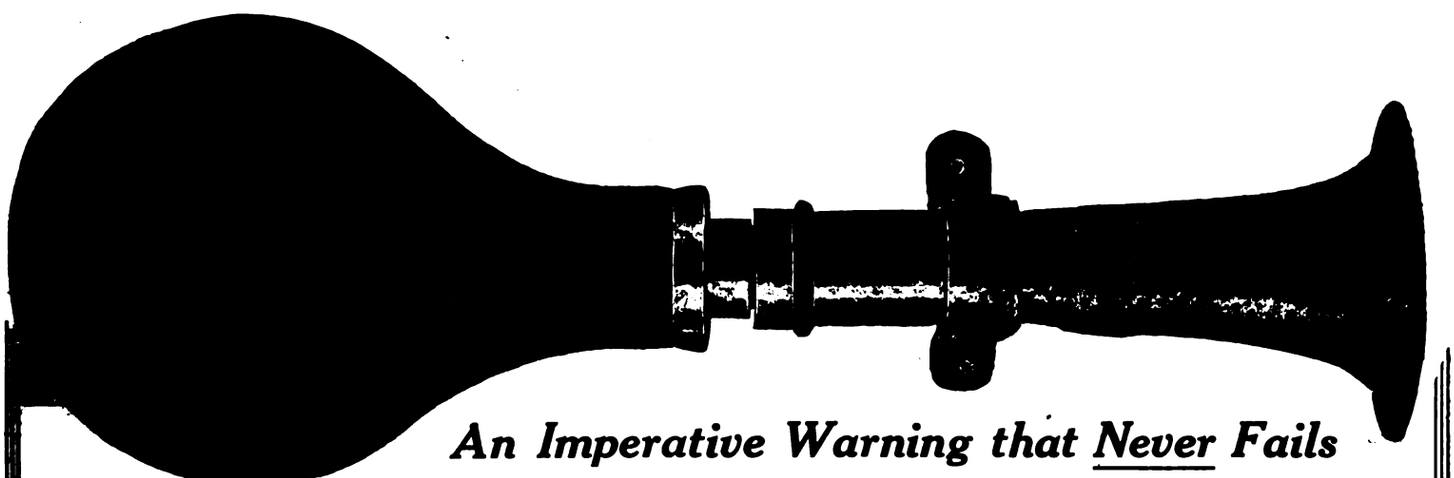
MONARCH



"It Stands the Test"

IVES MOTORCYCLE CORPORATION, 200 John Street
Owego, Tioga Co., New York

Distributed by Lowe Motor Supplies Co., 1727 Broadway, New York; Poulton & Hostetter, 20 S. 57th St., Philadelphia; John W. Grove Co., 634 Liberty Ave., Pittsburg; V. E. Yapp, Esbon, Kansas; Lincoln Holland, 1634 S. Main St., Los Angeles, Cal.



An Imperative Warning that Never Fails

SCENE—A lonely country road. A curve in the path. A young couple peacefully jogging along in a decrepit old buggy. Suddenly the man lifts his head. "Golly, what's that!" He turns the horse to the side of the road. He does it instinctively.

Another scene—a noisy, crowded city street. Children playing in the gutter. With one impulse, they rush to the sidewalk out of danger. What warns them? It's

"The Little Horn **The Acme Siren** with the Enormous Range"

A low, wailing moan, gradually increasing to a whining shriek. It is distinctive. It can be modulated from a low growl to a crashing note that means "Jump!" No wires to break, bend or rust. No batteries to get out of order. No delicate mechanism to fail at the critical moment. Just a horn, bulb and a revolving reed.

Special Offer—Good Until May 1st

The tremendous demand for Acme Sirens has depleted our stock to such an extent that we are making this special offer—good only until May 1st. Upon receipt of $5, the price of our Acme Siren No. 1, we will send one of our Acme Sirens No. 2, regular price $7.50. This has a larger bell, deeper tone, and is made of heavy gauge brass. Sign the coupon attached and send it to us *now*. Also send 10c. for one of our Tiger Color "Coventry Chain" pennants.

SARCO ENGINEERING CO., 112 Broad St., N. Y.
I enclose herewith $5 for Acme Siren No. 2 (usually sold at $7.50).
Name .....
Address .....

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DEALERS!

Send for our Catalog descriptive of the following list of Live Specialties we are manufacturing for 1913 and which are needed constantly in the motorcycle field.

Guaranteed Perfect Specialties

Simplex Spring Tandem Attachments; New Type A-K Luggage Carriers with Tandem Combination; New Type A-K Spring Luggage Carriers with Tandem Combination; A-K Pleasure Side Cars, Metal Bodies; A-K Commercial Side Vans, Bodies Optional; A-K Motorcycle Locks; A-K Fabric Pulley Lagging; A-K Bicycle Luggage Carriers; A-K Manifold Air Valves; A-K Lamp Brackets; A-K Spring Cushions—used in connection with Combination Luggage Carriers; A-K Axle and Stand Extensions; A-K Axle and Special Nuts.

A-K Rain Proof Riding Outfits in Containers with Brackets. Container about size of Prest-O-Lite tank. Also used to advantage for carrying Tools or Extra Tubes, etc.

ANGSTEN-KOCH COMPANY
Incorporated
Makers of Good Specialties
00 Englewood Ave. CHICAGO

One Hundred Miles In 68 Minutes

and one mile in 36 seconds flat! On January 7th Lee Humiston made the record, using

J-D Motorcycle Standard Spark Plugs

the new porcelain type introduced by the Jeffery-Dewitt Company. Read the following:

$1.00

"It gives me pleasure to confirm my telegram to the effect that I used your J-D Motorcycle Spark Plugs on my recent record trial in Los Angeles, on January 7th, at which time I broke the records up to and including one hundred miles, at the Playa Del Rey Motordome, using your porcelain plugs. These plugs gave me absolutely no trouble and my engine never missed an explosion during the entire one hundred miles.

"I was somewhat skeptical about using a porcelain plug, but after making several tests I decided to try them and they 'made good.' I shall use them on my future trials. Yours very truly,

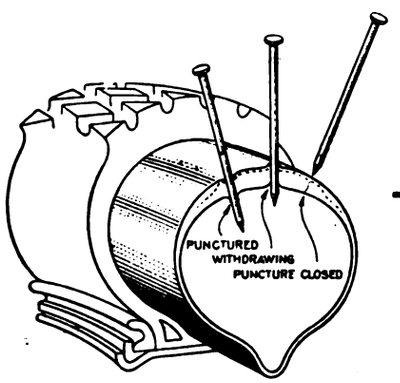
"(Signed) LEE I. HUMISTON.

"Witness:
"(Signed) E. L. MORSE.

"Subscribed and sworn to before me by the said Lee I. Humiston this 27th day of February, 1913.
"(Signed) J. F. KEEGAN,
"Notary Public."

Get a set of these great plugs from your dealer—or sent prepaid on receipt of price. *Metric size only.*

JEFFERY-DEWITT CO.
55 Butler Ave. Detroit, Mich.



Brown Scientific Non-Deflating Pneumatic Tube

AN AIR-FILLED MOTORCYCLE TUBE POSSESSING VERY UNUSUAL FEATURES:

First: It withstands a tread puncture without deflating the tube.
Second: The higher the pressure the tighter the puncture closes.
Third: It eliminates the risk of destroying casings by reason of punctures.
Fourth: The danger of loss of control of machine is removed.
Fifth: It assures you of not being obliged to repair a puncture on the road and gets you "there and back" on full tires.

AIR FILLED ONLY.

Punctures are self-closing by reason of a scientific but simple principle of construction.

NO "DOPE," GUM, PASTE OR OTHER STUFFING MATERIALS

Write for prices, full description and sectional sample

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Sole Manufacturers
Main Office and Works: 18 to 46 Bostwick Ave.
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As pioneers in the production of these articles we have acquired a reputation for high quality that becomes an asset to all who use our products.

Our frame parts are made from individual blue prints only and we use in their construction only the finest quality of

"Standard Steel Tubing"

THE LIGHTEST, STRONGEST, SMOOTHEST STEEL TUBING MADE

THE STANDARD WELDING COMPANY
CLEVELAND, O.
OFFICES IN
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Make Your Punctured Tubes As Good As New

Vulcanize in Twenty Minutes

Don't insecurely cement your punctured tubes. Vulcanize them with virgin rubber. Makes the repaired portion as good or better than any other part of tube. Get

The Clark Vulcanizer

A compact, practical little vulcanizing outfit. easily fits pocket. A supply of pure virgin rubber with every outfit. Absolutely the simplest, lightest, most practical and cheapest device on the market.

PRICE, PREPAID, $1.00

Dealers—here's a "sizzler." Get our proposition.

CLARK VULCANIZER CO.

Columbia Bldg. - COLUMBUS, O.

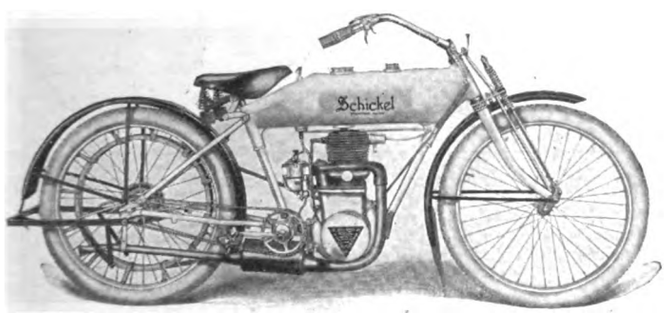
BE A MINUTE MAN

LIKE THE MEN OF '76, READY WHEN THE CALL COMES

Fortify yourself against unnecessary holdups, own a

1913 Schickel

Then you'll shout "HERE" every time the road calls. The Schickel never asks you to waste even a minute on valves. The Schickel motor is valveless.



It is timed right when built and can't get out of time. Think what it means to ride over a motor that is always tuned up to do its best, without your ever bothering to stop for adjustments.

The Schickel oiling system is the most accurate and the most reliable as well as the simplest system in use today.

Just as sure as 2 and 2 never makes 5, motor timing and motor lubrication never make adjustments necessary in the Schickel.

Strong statements like these call for a thorough explanation. We have the facts ready to send you now.

WRITE TO-DAY

The Schickel Motor Co. 59 GARDEN STREET STAMFORD, CONN.

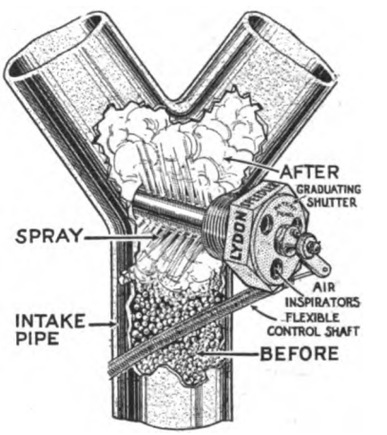
Speedler

With Handle Bar Control

Attach to handle bar in a few minutes. The marvelous speed spray for motorcycles. Lydon Speedler fits every motorcycle. For speed. For power. For cooling. For economy. Gives your motorcycle a marvelous increase in speed. Removes carbon. Keeps engine cooler. Positively guaranteed on 30 days' free trial. Your money back if it does not pay for itself in a month.

More Speed

A Lydon Speedler gives your motorcycle more speed when you want it. Control at your finger-tip always. A finger-tip touch and you have a marvelous increase of power, of speed and saving of gas. It's the spray that does it. The powerful cross-current air spray of the Lydon Speedler remixes the mixture to the highest degree of combustion. Speedler will give more life and value and higher speed in your motorcycle than any device ever perfected.



Increases Engine Power

Get more power and speed. Make every explosion sharp and snappy. Get greater power and quicker action in every piston stroke. Add 20 per cent to your present engine power by attaching a Lydon Speedler. Make your engine run smoother. Speedler is a perfect decarbonizer and handy primer. Pays for itself every month. It has our absolute money-back guarantee.

30 Days' Free Use

The Lydon Speedler is sold on thirty days' free trial. Use it for thirty days and get your money back if you are not entirely satisfied. Dealers everywhere are authorized to give thirty days' free trial. If your dealer is not supplied, write to us for full description of this marvelous money saving, power making speed device, postpaid free.

Price With Handle Bar Control $3 The price of motorcycle Speedler, complete with the additional handle bar control together with four feet of flexible cable conduit connection is only $3. If your dealer cannot supply you, send direct to us. Enclose only $3. Post Office money order, express money order, or draft. We will send the Speedler to you, all charges prepaid, upon receipt of price. When you send direct to factory kindly give us the name of your dealer.

Lydon Mfg. Co.

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Distributors,
1146 Michigan Avenue,
Chicago, Ill.

Free Coupon

LYDON MFG. COMPANY.
Dept. 6209
Chicago, Illinois.

Gentlemen — Please send me full description of Lydon Speedler, also particulars of your 30 days' free trial and money-back guarantee. Send all postpaid to me free. I am sending here the name of a dealer in motorcycle supplies.

My name.....

My address.....

Dealer's Name.....

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The Neverout

TRADE MARK

MOTORCYCLE OIL LAMP

(Patented)

SHOWING A RED REAR LIGHT

THE ONLY RELIABLE MOTORCYCLE OIL LAMP

LAMP WEIGHS ONLY 12½ OUNCES.

The Neverout complies with the laws of the various States and Municipalities.

The Neverout burns kerosene ten hours with one filling, and will stay lighted under any and all conditions. All riveted—will not rattle or jar apart over roughest roads.

Made in gun metal, brass or nickel finish. Double clamp bracket furnished; fastens lamp securely to fork of motorcycle. No danger of shaking off, and *shows red rear danger signal.* Sold by leading jobbers and dealers everywhere.

Guaranteed to stay lighted or money refunded

The Neverout is equipped with a *Patent Glass Covered Reflector of German Silver,* instantly removable; never loses its original brilliancy.

FOR SALE BY LEADING DEALERS.

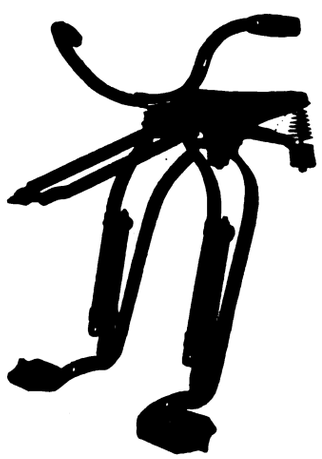
Made Only by **ROSE MANUFACTURING COMPANY**

933 Arch Street, Philadelphia, U. S. A.

Simplicity—Comfort—Stability

The Empire Special

SPRING TANDEM



"IT FLOATS"

You wouldn't seriously consider purchasing a motorcycle that does not possess at least these three cardinal points. Then why permit a tandem attachment to be fitted on your machine, that has not proven to your complete satisfaction that it possesses these three characteristics in full measure? Here is

The Empire Special Spring Tandem

"IT FLOATS"

There is nothing about the Empire Special to get out of order. Simplicity is the keynote of its construction.

By a peculiar and ingenious invention, for which patents have been allowed, the Handle Bars and Pedals are caused to float with the saddle, insuring the maximum of comfort and smooth riding on the roughest of roads.

The famous Kelly No. 10 Adjustable Handle Bars are fitted on all Empire Specials.

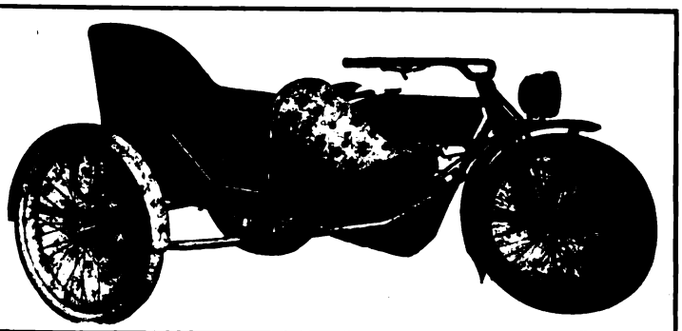
Constructed of steel and no malleable parts, the Empire Special is practically indestructible.

Ask your dealer for our booklet. If he hasn't it, send us his name and you'll get one by return mail. The Empire's proof of superiority is in it.

EMPIRE SPECIALTY COMPANY

Office, 147 The Arcade CLEVELAND, OHIO

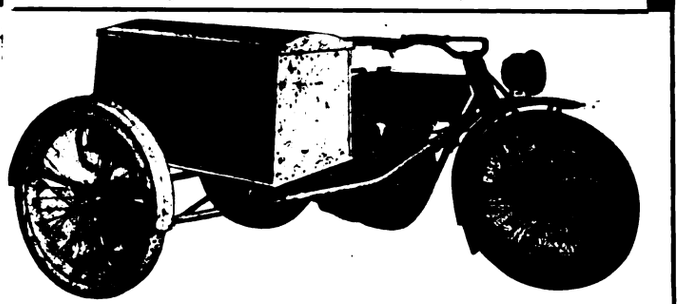
CHAS. E. WEAVER, Sales Manager



"ANDERS"

From both a business and pleasure standpoint, the Anders line of sidecars has tremendous opportunities. Their substantial yet graceful construction, the unique "rocker motion" which immediately puts them at the head of the line in the comfort class, and, finally, the reasonable price at which they are sold, makes them a proposition which no clear-thinking dealer can afford to overlook. Get our booklet today.

National Cycle Accessories Co., Aurora, Ill.



More Money for You

We save you a quarter for every dollar you spend with us.
Send for our 1913 Catalogue showing the most complete line of guaranteed Accessories.
We save you DOLLARS on Tires.

Motor-Cycle Co-Operative Co.

650 Woodward Ave. Detroit, Mich.

DON'T TAKE CHANCES

Don't depend solely upon your delicate grip control mechanism. If it should refuse to work at a critical moment—there'd be trouble. Get a

SIMPLEX MAGNETO CUT-OUT

Price 50c., or complete with cable, 75c. By mail, postpaid. We also make the celebrated Simplex Side Cars. Let us send you our booklet.

SIMPLEX MACHINE WORKS, 45th St. 6th Ave., Brooklyn, N. Y.

THE MOTORCYCLE TIRE JIMMY

Price **$1.00**

Send for Illustrated Booklet

Will remove tire and run it on in half a minute. Impossible to puncture tube with it or run flap under bead. No matter how tight bead is stuck in eye of rim it removes it with ease. In two parts, polished; length, 8 in.; weight, 8 oz. Should be in every kit. Satisfaction guaranteed. Dealers write for prices.

Motorcycle Tire Jimmy Co., St. Marys, O.

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Mr Dealer:—

What are you going to say when the rider asks you for

Duncan's Belt Dressing?

If you have none in stock, you cannot honestly say that you have something "just as good or better" and if he has ever used DUNCAN'S he will know.

The dealer who has the confidence of his trade is the one who sells the BEST and that is DUNCAN'S.

Two sizes, 25c. and 50c.

Dealer's and Jobber's discount upon request.

SAM D. HANNA & CO. **Yorkshire, Ohio**

BEAN
MOTORCYCLE CHAIN REPAIR TOOL

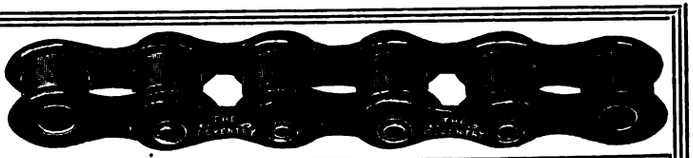
Two In One — Handle Reversible

Instantly Removes Rivets as Shown

Price Each, Plain, 75c; Plated, 15c Extra

If your Dealer does not have them, we will fill orders direct on receipt of price.

THE BEAN COMPANY, Berea, O.



"The Coventry" Chain

"The Motor's True Mate"

Transmission efficiency is not a matter of guesswork—of time, place or circumstance.

A chain that is made of the highest quality materials, with exquisite care, a chain that is carefully inspected and rigorously tested—such a chain MUST give perfect service at **any** time, under **any** conditions.

A brief study of the manufacturing conditions surrounding the making of "THE COVENTRY" CHAIN will explain WHY it gives such universally satisfactory service.

Our catalog tells how a good chain is made, and is free.

Sarco Engineering Co.

112 Broad St., N. Y.

VICTOR OLD RELIABLE MOTORCYCLE LAMP

From sales and inquiries received at Chicago Show this lamp will undoubtedly exceed the tremendous success of the famous X-Ray.

A glance at specifications will convince every rider of the desirable features of this lamp—greatest of which is the enormous size, genuine mangin mirror, 6½" diameter, unheard of before in the history of motorcycle lamps.

Specifications.

Front diameter .....8¼"
Body " .....6½"
Size of lens .....6½"

Manufactured by

VICTOR AUTO PARTS CO.

CINCINNATI, OHIO

Selling Agents

FULTON McCUTCHAN CO.

1146 MICHIGAN AVE., CHICAGO, ILL.

This is the valve that put a motor in motorcycle

It is the first valve to stand the severe test of motorcycle service without burning, warping, or serious pitting.

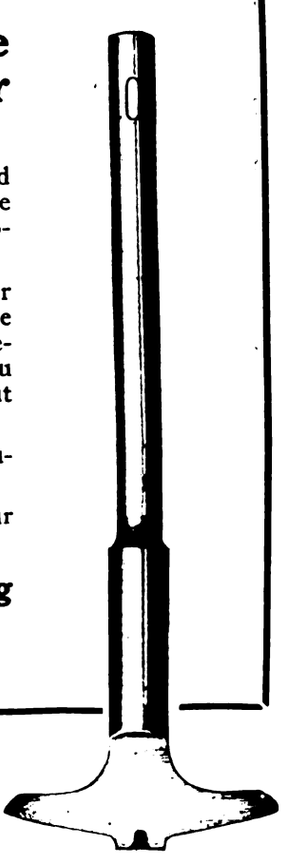
This valve will run two or three times as long as the ordinary valve without regrinding. It will save you from many complaints about motor trouble.

We sell these valves to manufacturers only.

Send blue prints for our prices.

The Electric Welding Products Company

CLEVELAND



The stem and head are of special selected steels. A cast iron rim is welded to the under side of the head as shown in the illustration.

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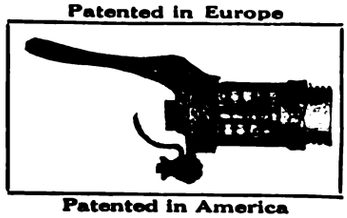
THIS IS WHAT THEY ALL SAY ABOUT THE M&M ECONOMIZER

We will have another motorist's letter next month

Patented in Europe



Patented in America

Los Animas, Colo.
Moller Bros., Phila., Penna.

Gentlemen: In reference to the M&M Economizer which I purchased from you sometime ago, will say that I would not be without it. I have installed it on a SEARS SINGLE. I have run seventy miles since I got it, on two quarts of gasoline, where formerly it would take a gallon to cover the same roads. It increases the speed and power every bit of 20%, and the carbon deposit is hardly noticeable.

Two more Economizers have been ordered in this vicinity since I got mine, and many more will be ordered when the motorists find what a saving can be made in gasoline with the increased efficiency of their motors, by using the M&M Economizer. (Signed) GILBERT MARTEUSON, March 14th, 1913.

THE M&M ECONOMIZER WILL POSITIVELY SAVE FROM 40 to 50% of gasoline. ELIMINATES all carbon, *and acts as an air-brake.* With the throttle set at twelve miles per hour, by opening the M&M, the mileage will be increased to EIGHTEEN OR TWENTY MILES with the SAME AMOUNT OF GASOLENE and LESS CARBON.

The M&M is nickel plated and highly polished. Requires a ¼" pipe tap to insert into manifold. Can also be reduced to ⅛". Can be applied to any motorcycle on the market with PERFECT SATISFACTION. It is very easy to apply to your motorcycle, and will not injure it in any possible way. THE LONGER YOU HESITATE TO PURCHASE, the MORE GASOLENE YOU ARE USING, and we assure you that there is not one individual that has applied the M&M but will tell you that IT IS WORTH MANY TIMES ITS COST, and HE WOULD NOT BE WITHOUT IT ON HIS MOTORCYCLE. The M&M is becoming THE RAGE in motorcyclists' Realm.

Price of the Motorcycle Attachment, $1.25 Prepaid.

Money positively refunded in 30 days if unsatisfactory. Send for our catalogue and information.

OUR GUARANTEE.—Money will positively be refunded in thirty days if the M&M should not do WHAT WE CLAIM. No dealer or jobber is authorized to sell without giving our guarantee. THEREFORE, you RUN NO RISK BY PURCHASING. Reference (Citizens National Bank, Lewistown, Pa.).

Beware of Infringements!

Moller Brothers Controller & Economizer Company

Main Office: 708 Betz Bldg., PHILADELPHIA, PA. Factory, LEWISTOWN, PENNA.

NEW CATALOG 300 PAGES Ready Now

MOTOR CAR
MOTOR CYCLE
MACHINISTS'
BICYCLE
SUPPLIES
and Bicycles

WHOLESALE ONLY

DEALERS GET YOUR NAME IN

MOTOR CAR SUPPLY COMPANY

1451-1453-1455 Michigan Ave. Chicago

Keco

An Electric Motorcycle Horn

PRICE $3.50

Ready for delivery April 1. Finished in Brass and Black Enamel. Attaches to Handlebar. Complete with Push Button and Wire.

Add your name to the already large list of dealers who were literally "electrified" by our announcement

GEORGE W. SHERMAN -:- Distributor for the United States

76 Blaine Ave., Detroit, Mich.

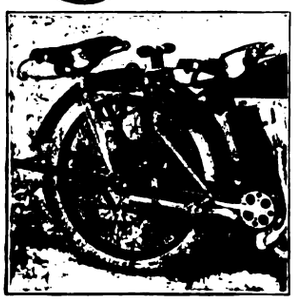
MANUFACTURED BY THE **KOSMAK ELECTRIC CO.**

Jersey City, N. J.

"Bu-Rem"

Tandem Attachments for 1913 INDIAN

Price complete with Mesinger Superba Saddle $15
Price less saddle $10



The "Bu-Rem" Tandem is the safest and only practical tandem for use

on 1913 Indians

Write for complete catalogue describing "Bu-Rem" Tandems, Electric Light Outfits, Crank Case, Protectors, Dust and Mud Shields.

THE BUMILLER REMELIN CO.

Manufacturers—Jobbers—Dealers

Distributors for the Silent Indian, Cincinnati and Vicinity.

Cincinnati Ohio

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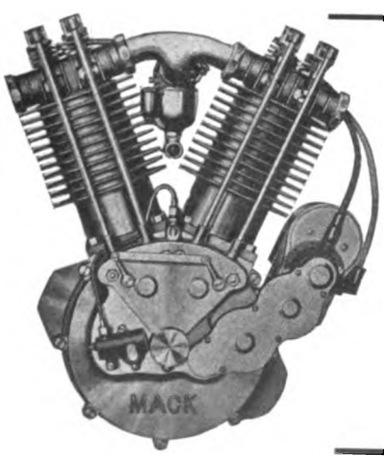
Motorcycle Supplies

If you want to secure "Gulliver" quality at "Lilliput" prices—or in other words—a lot of value at small cost, send for our catalog of OMC motorcycle supplies. Everything for the dealer and rider. Don't fail to get our catalog.

OBERWEGNER MOTOR CO.

TOLEDO, O.



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Most powerful, speediest and most accessible motor ever designed. Built in four sizes—4 and 5 H.P. singles —7 and 9 H.P. twins. Overhead valve mechanism—patented positive action mechanical oil pumps.

BEST MOTOR MADE

We are filling orders for Manufacturers' 1913 requirements.

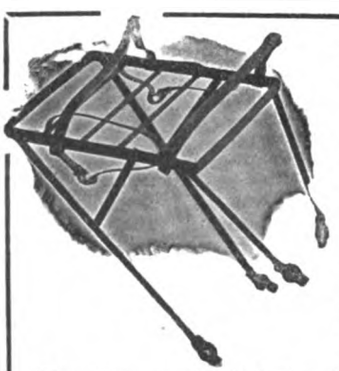
Write

Universal Machinery Co.

1913 St. Paul Ave. Milwaukee, Wis.

A. B. COFFMAN, Representative

6 Glenwood Court Toledo, Ohio



The STAR LUGGAGE CARRIER

Is Built for Heavy Duty

For the rider who wants to carry an excessively heavy weight behind the saddle, the Star Luggage Carrier fills the bill.

Scientifically constructed of steel, heavily re-enforced at points of wear, the Star can withstand considerably over 300 lbs. weight. For tandem riding the spring action makes it an exceedingly comfortable seat.

The Star is handled by the leading jobbers in America. Write us.

STAR ELECTRIC CO., - 18 No. May St., Chicago, Ill.

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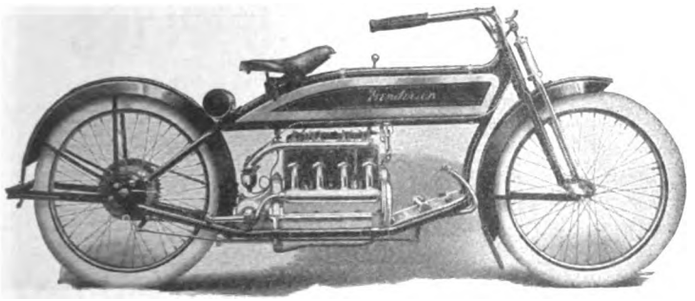
Henderson



8 H. P., 4 cylinders, free engine, chain drive, $325.

Why Four Cylinders?

Because the motorcyclist wants three things—power, flexibility of power and easy riding.

The Henderson's four cylinders develop 8 horsepower—enough and to spare to go over any road or climb any hill you will encounter, and far more speed than you will dare use.

This power is flexible. You can throttle to walking speed and still it pulls. You can jump to high speed without nursing the motor.

Four cylinders produce less vibration than one. They are placed low, so the center of gravity is low. The machine rides easier and holds the road better; and the wheelbase is longer.

These things have given the Henderson national popularity. Write for the literature.

Henderson Motorcycle Company

1158 Cass Avenue **Detroit, Mich.**

14,000 Miles on One Set of J-M SPARK PLUGS

This is the remarkable record established by Mr. A. L. Westgard on his recent 14,000-mile pathfinding trip across the continent. During the entire trip there wasn't a single miss—a single leak—or a single break in insulation.

Do you know of any other plug that could survive a service test like this? And do you wonder we feel safe in guaranteeing J-M Spark Plugs for 10,000 miles!

A. L. Westgard, Official Pathfinder of the A. A. A. and the U. S. Office of Public Roads.

This is the only plug on the market with a complete double insulation—mica and porcelain. It will spark perfectly with the outer insulation broken—even when current is supplied by a magneto. All parts are baked to prevent destructive expansion. Center electrode case-hardened to withstand highest engine temperatures. Any size can be used for either magneto or battery.

Price $1.00 each, prepaid. Shipped direct if your dealer can't supply you.

Write our nearest Branch for Booklet.

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THE CANADIAN H. W. JOHNS-MANVILLE CO., LIMITED.

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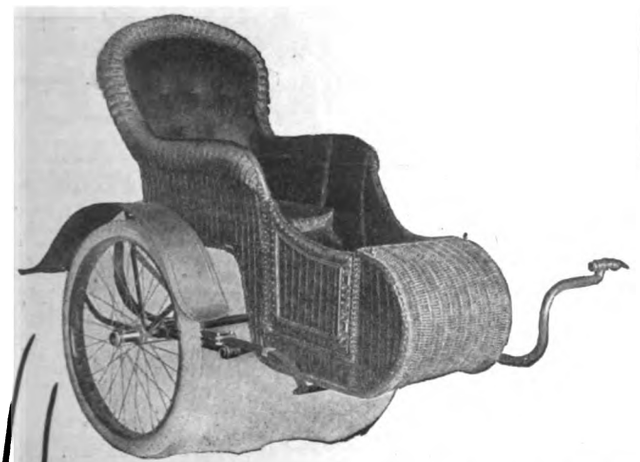

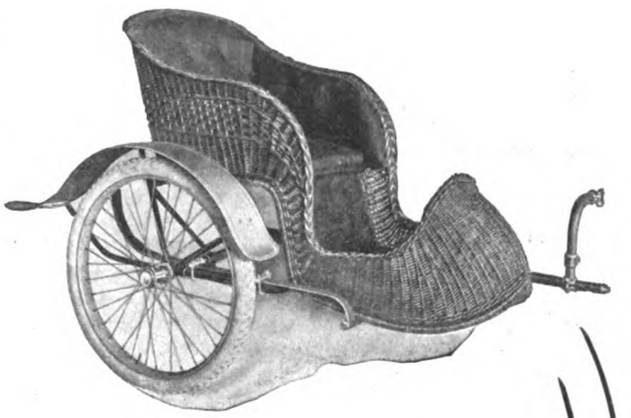

WE make six different models so as to give you the widest range of selection. But all Majestics are of the same high quality. We use four long, flexible leaves of tough vanadium steel. We are the only makers to use drop forgings for all attachments. You surely want one of the new

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Special Prices to Dealers and Riders Direct

Here is a tire that is A1 in every particular; an absolutely standard, carefully made, and guaranteed tire that will deliver a better service than any one you have ever used. We will make you, direct, special prices for the purpose of securing a trial order, which will be certain to land your permanent trade. Bear in mind that, in ordering of us, you take absolutely no risk, because if, when the tires reach you, they are not absolutely satisfactory

You Get Your Money Back!

And, after you accept the tires and put them in use, if they prove faulty (but they won't) you are protected by our guarantee.

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Direct to the Retail Dealer and Rider:

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28x2½ Casings	$7.50
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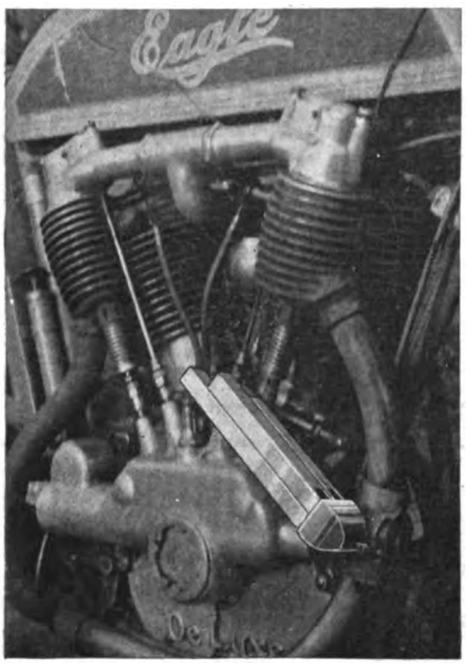

"THIS is the 'Eagle' on which I toured Europe in 1912. Note position of the 'Chimes.' They made a hit wherever I went."

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are "making hits" everywhere. Send for description and prices.

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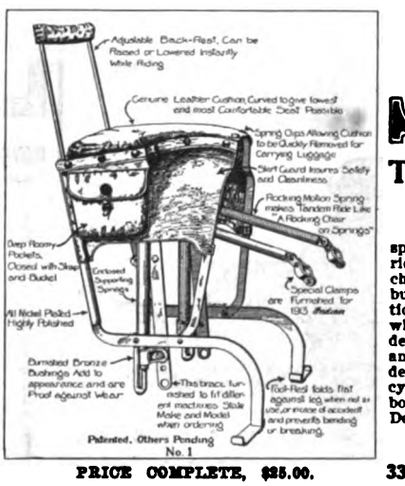

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THE IDEAL TANDEM FOR WOMEN

Combination upright and horizontal springs, enclosed in tubes, suspend the rider stationary, and allows the machine to take all the bumps. Largest bumps cause only a gentle rocking motion in the tandem. No side sway whatever. Outclasses all other tandems for COMFORT, DURABILITY and appearance. Smoothest riding tandem made. Made to fit any motorcycle. Has attachment for Indian tool box. Write for complete catalogue. Dealers, get our proposition.

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33rd and Walnut DENVER, COLO.

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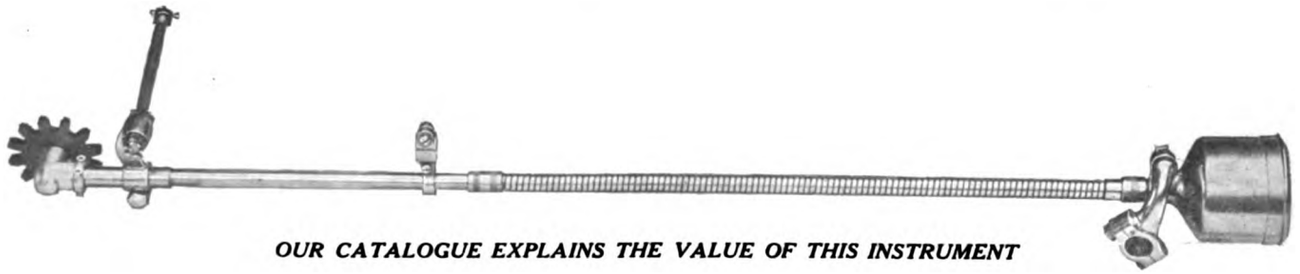

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RENOLD RELIABILITY

from which you will understand why ninety per cent. of foreign motorcycle manufacturers use Renold Chains.

By all means get this interesting booklet.

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New Styles—Big Sellers

Loewenberg garments for motorcyclists more than measure up to every standard—style, finish, comfort, quality, protection, class. No matter what a customer may demand, no matter how much he may want for his money, you can make ready sales if you carry this line. It's a winner.

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Write us today for our catalogs.

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A GOOD EXHAUST CHIME

Is essential to the proper attachments of your motorcycle and to your safety.

ORDER A GENUINE

BARCO Exhaust Chime

Attach it in 30 minutes and enjoy it all summer.

Note the simple construction.

Note the 3-tone chime with all tones in one tube.

Note the unobstructed exhaust passage of the valve.

Reasonable in price. Prompt delivery.

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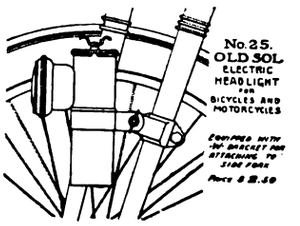

Self contained headlight **one hundred** candlepower, twenty to thirty hours burning intermittent service. Bracket supplied for side fork.

Patents Applied For.

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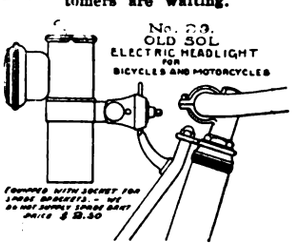
Sold the fifty lamps just received, rush quick 50 more. Our customers are waiting.



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The Berling Magneto

has the fastest, liveliest interrupter. Put it on **your** machine and you'll always win.

For racing—touring—all-around efficiency—the Berling is **best.**

It furnishes ideal ignition.

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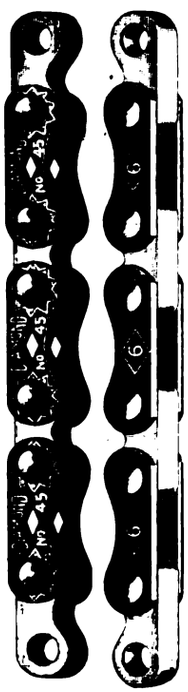

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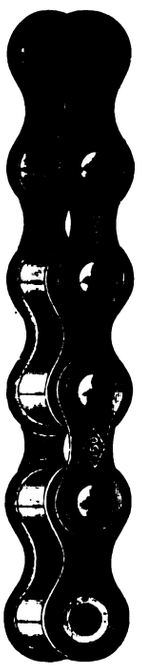
It's the high grade material, accurate workmanship and our pioneer experience in chain making that make such lasting friends for Diamond Chains, and have made these the standard equipment for the past 21 years. When buying a new chain, know what you are getting. Look for the Diamond trade-mark on the connecting link.



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THE ONLY EFFICIENT EYE PROTECTOR

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ABESTO Pull-E-Tape

It's self-vulcanizing. No screws—no burnt glue—no bother or fuss to apply. Order from your dealer or we'll send it direct.

Price 50c a roll

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that's easier on your guiding hand than anything you ever tried. It's the famous, smooth-fitting ***Grinnell Glove*** which you already know, *plus* the new "Grip-Tite" reinforcement or double corrugated palm and inner thumb.

Doubles the wear and gives *constant*, *non-slip* control.

The "Grip-Tite" glove *almost* does the guiding for you.

Style 4827

Grinnell Gloves

Sold with a Bond

are the softest, *toughest*, longest wearing—the smoothest fitting, *most flexible*, and allow the *greatest* finger play of *any* glove you ever wore or could buy. Never peel, harden or crack from use—easily washed in soap and water, or gasoline, and always remain soft and pliable.

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REMEMBER THE NUMBER "153"

When ordering this latest creation in motorcycle lamp-dom. Not an undesirable feature about it.

Every Line Perfectly Designed

Depth, 5 in.; Dia. Door, 3 in.; Height, 5 in.; Weight, 24 ounces; Finish, nickel plate. Efficiency and Durability guaranteed.

List $5.00

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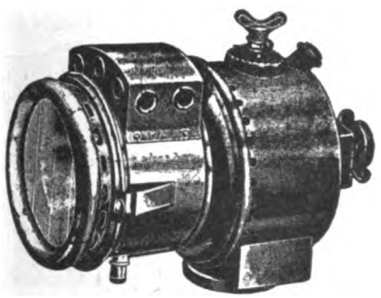

No. "153."

THE MOTOR CAR EQUIPMENT CO.
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Exclusive steel rim manufacturing experience has taught us many fine points in rim manufacture, which no wise manufacturer can afford to overlook.

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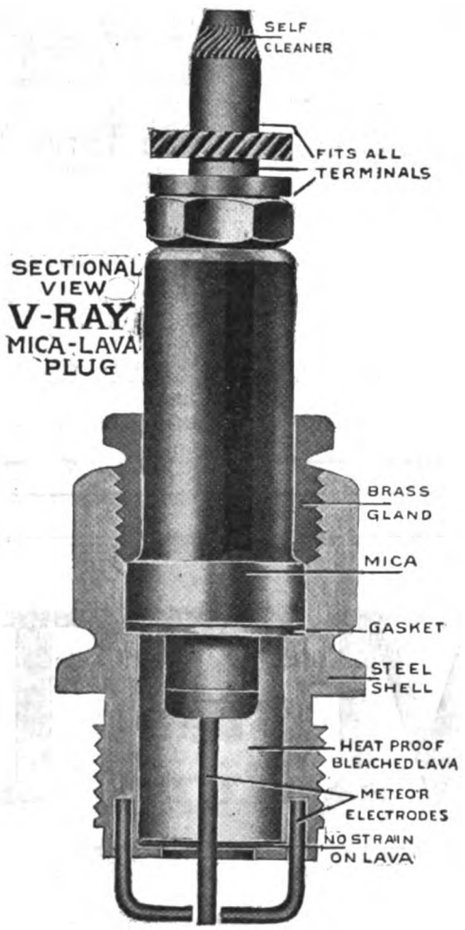
Motorcycle Type.

Neither Mica nor Porcelain Touches Oil or Heat in this, the

Motorcycle Type.

Manufactured by THE V-RAY CO., Marshalltown, Iowa



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ALL JOBBERS. **THE V-RAY CO.** ALL DEALERS.
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Measure up in *every* respect to the high standard maintained by Billings & Spencer for more than 40 years.

Drop forged of best steel for the purpose properly tempered.

All parts carefully assembled.

The most complete manufacturing facilities for the making of motorcycle drop-forgings. Write for catalogue.

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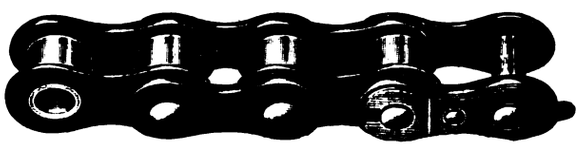

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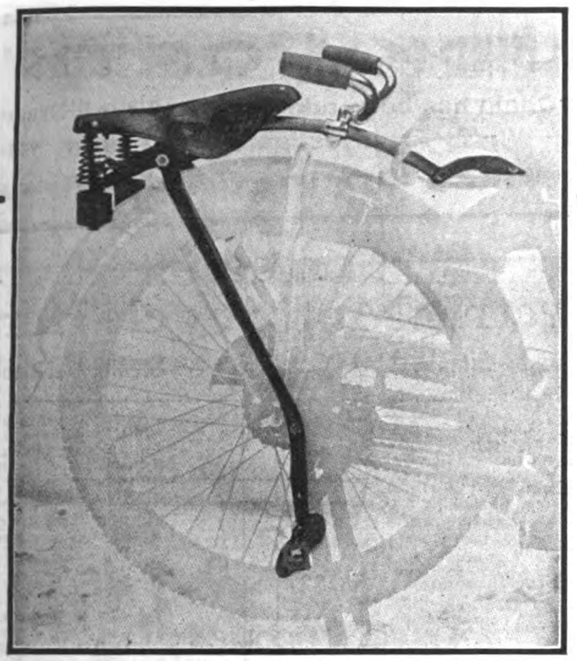

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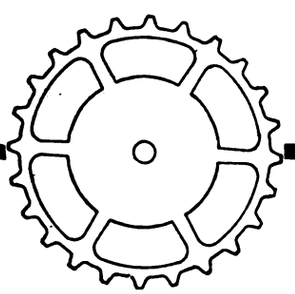

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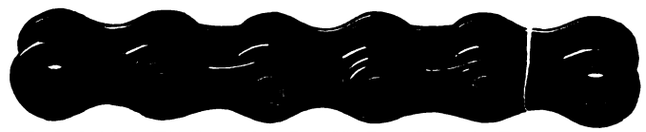

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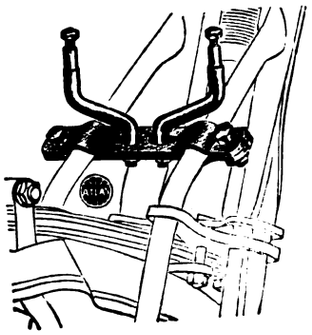

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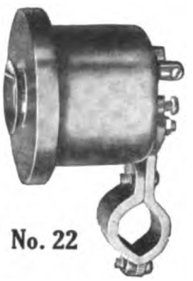

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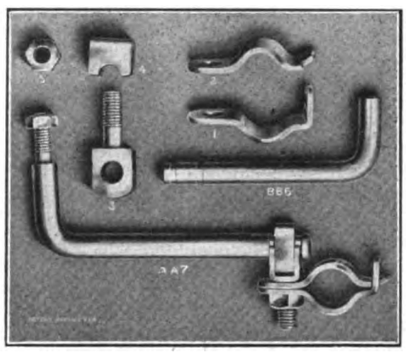

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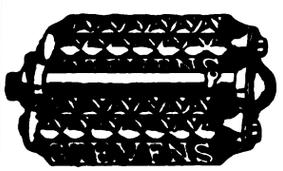

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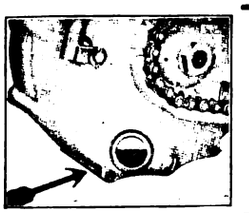

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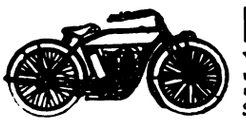

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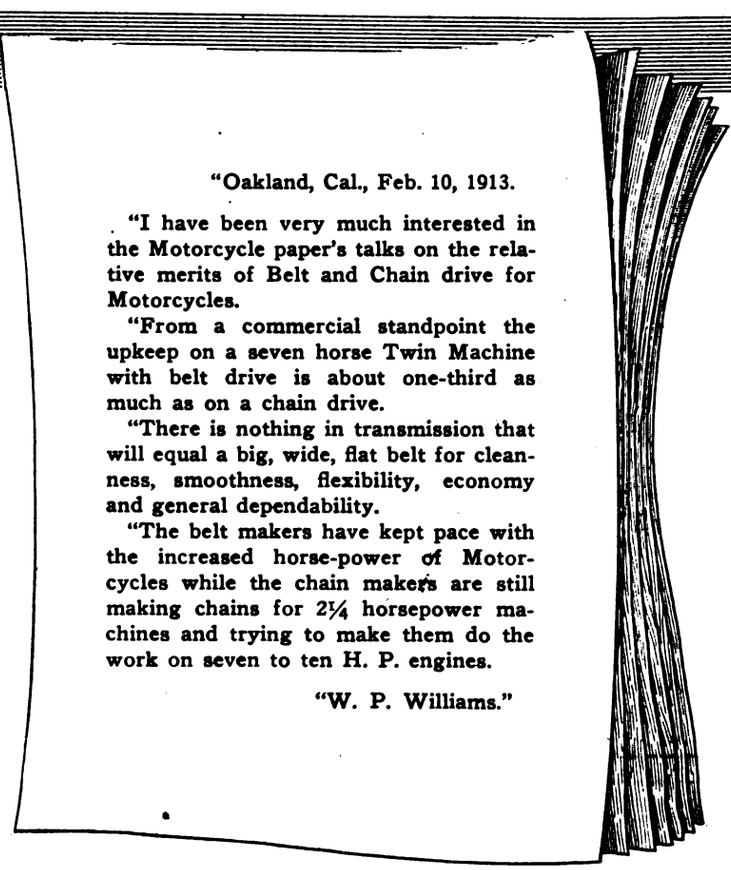
On A Seven Horsepower Twin

Read what the W. P. Williams Cycle Co., Oakland Cal., has to say on this subject

Letters Like These Back-Up Our Famous Belt Talks



"Oakland, Cal., Feb. 10, 1913.

"I have been very much interested in the Motorcycle paper's talks on the relative merits of Belt and Chain drive for Motorcycles.

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"There is nothing in transmission that will equal a big, wide, flat belt for cleanness, smoothness, flexibility, economy and general dependability.

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"W. P. Williams."

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Spartan belts are on 90% of all 1913 belt-driven machines, therefore, the chances are nine to one that you will find a Spartan on your machine—but be sure to look for the name "Spartan." It is your protection and guarantee of perfect satisfaction.

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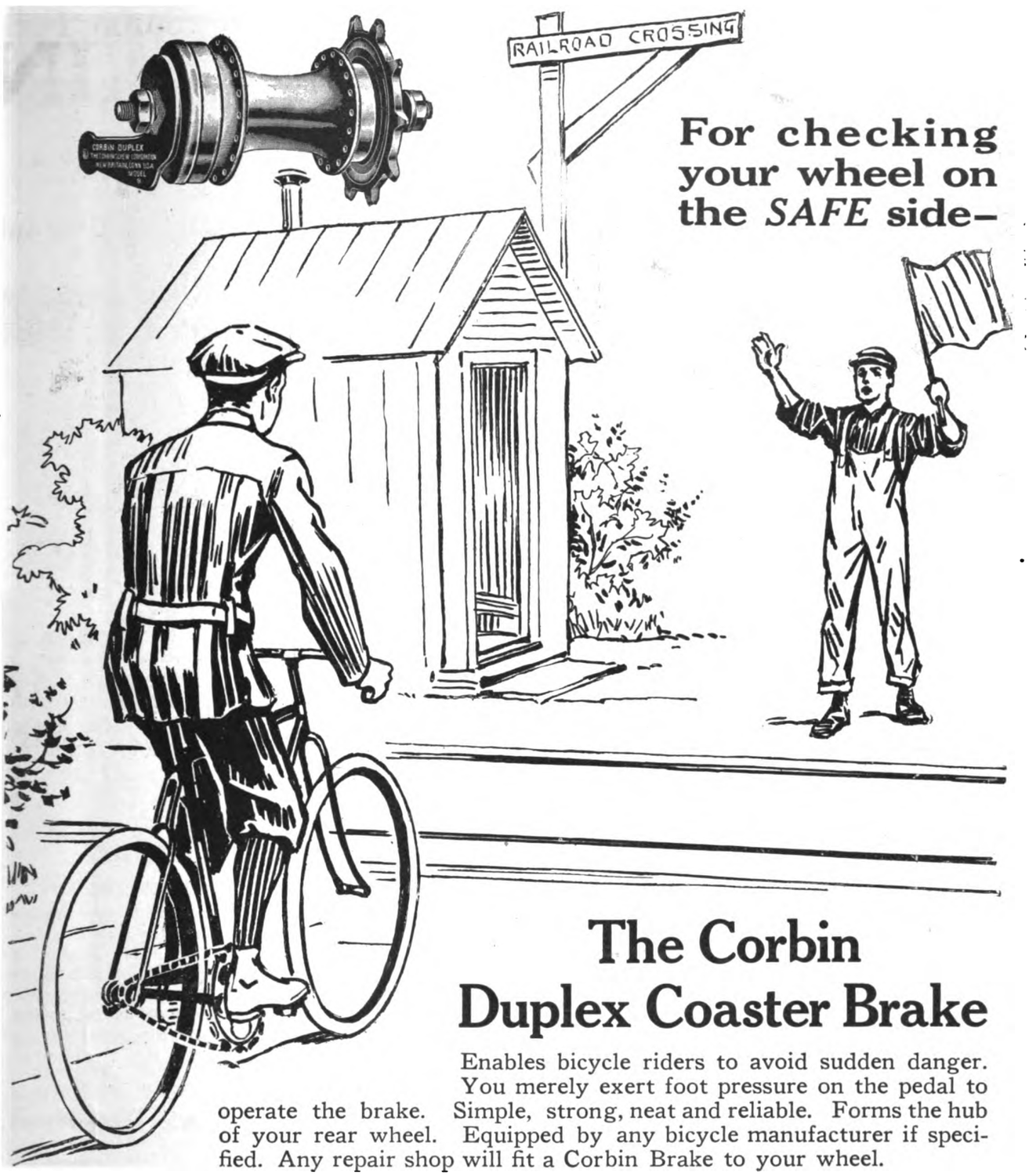

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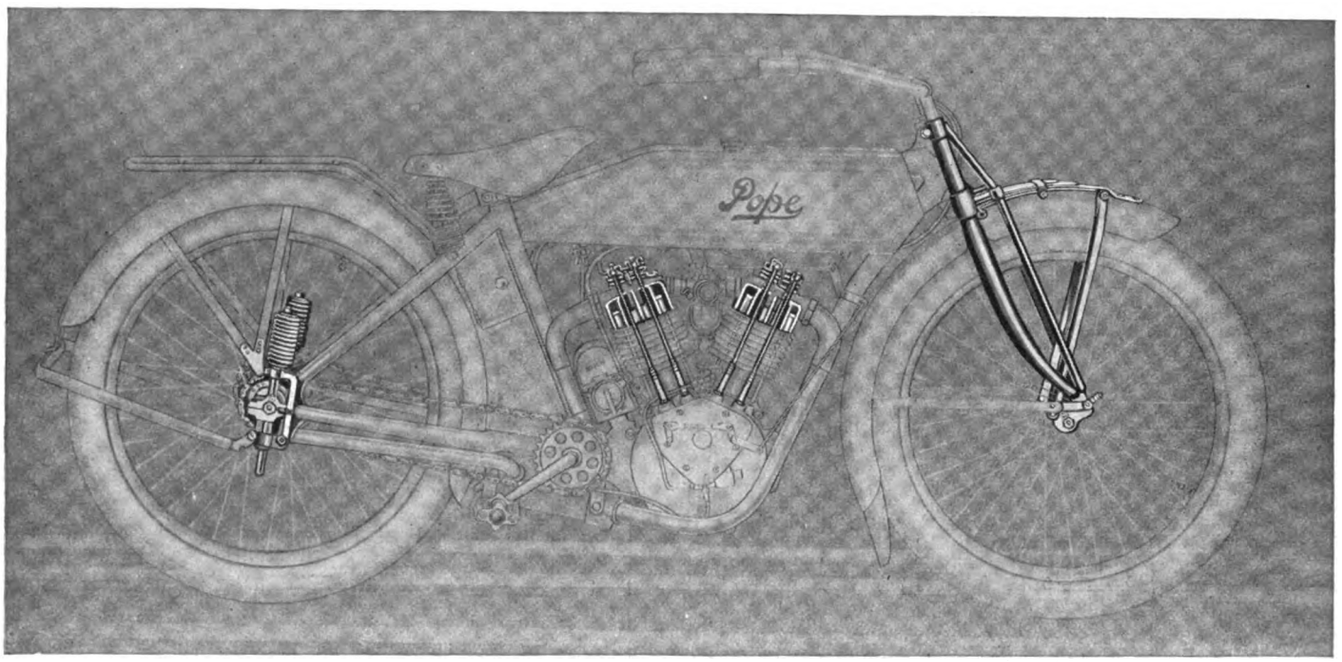

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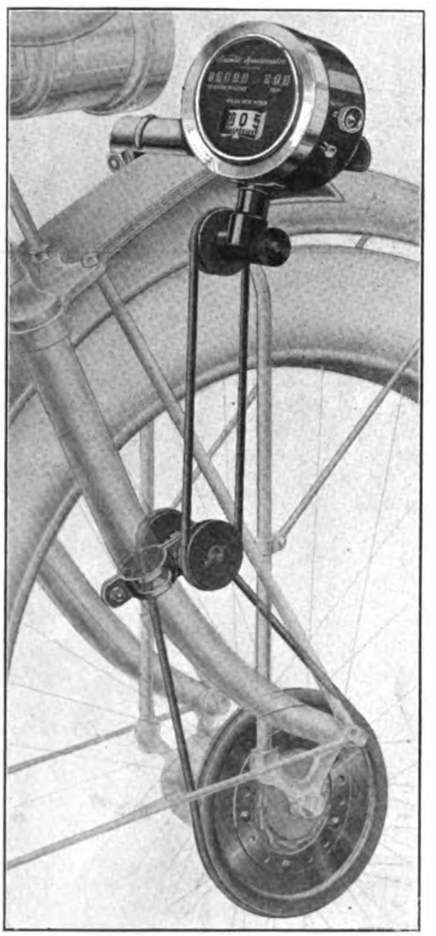
Motorcycle Speedometer
With New Two Belt Front Wheel Drive



MOUNTED on the front extension spring or mudguard and equipped with the new two-belt front wheel drive, the Stewart is the only motorcycle speedometer made which is immune from excessive vibration and road shocks. The belts, of coiled steel piano wire, merely "give" when subjected to a sudden strain, instantly contract when the strain is over and ***under every condition*** afford perfect traction on the steel and fibre pulleys. The roughest going ***cannot*** injure either instrument or drive.

$12 ***(Complete)***

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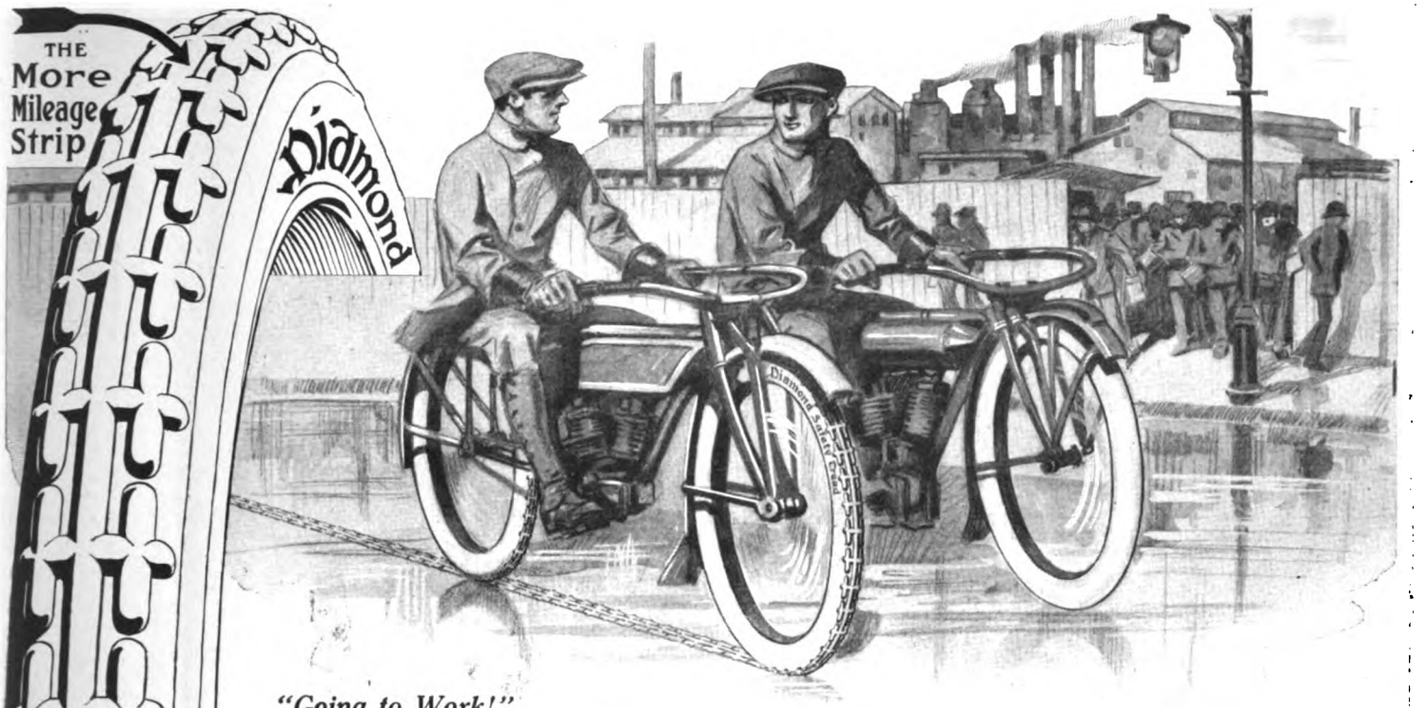

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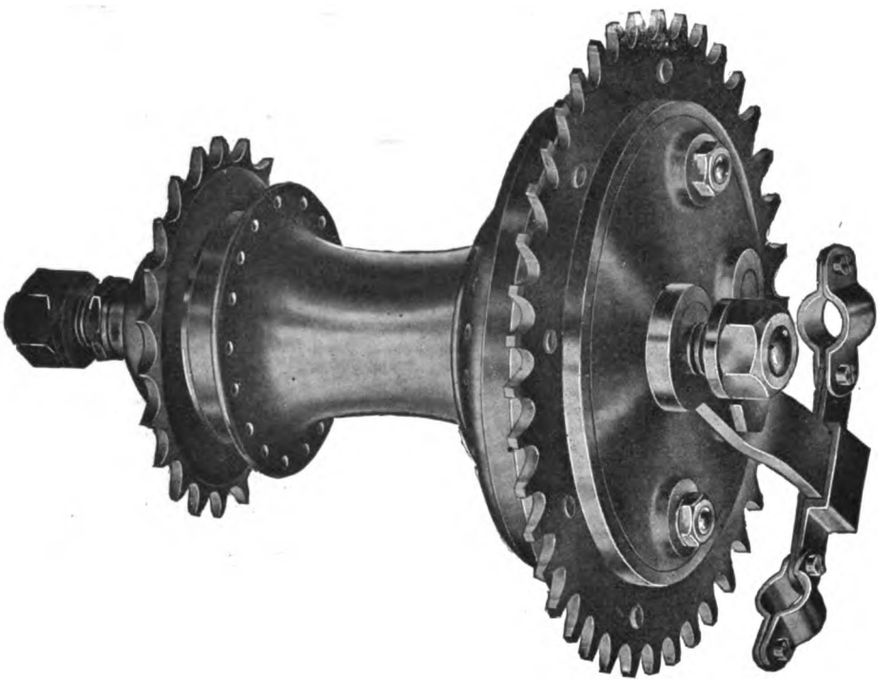

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It is exactly the same kind, type and design of a brake as is used in automobiles.

It is powerful enough to hold an automobile—or a motorcycle of several times the horse power of any now on the market.

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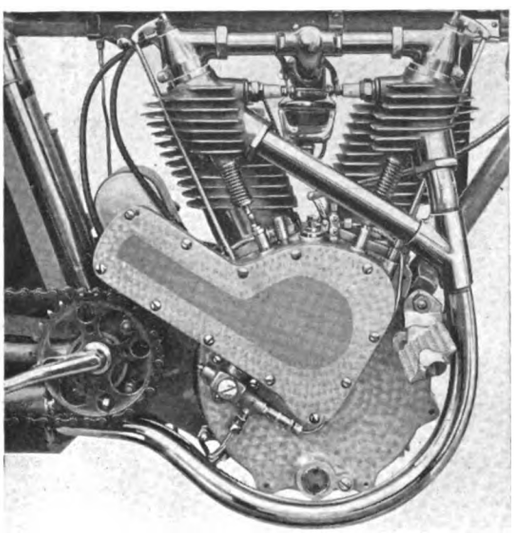
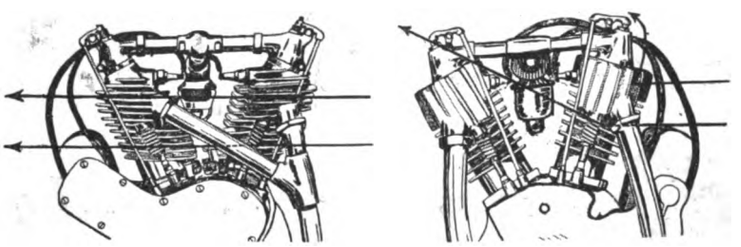
YALE

A Twin with Two Efficient Cylinders



IN designing the power plant of the Yale twin, the Yale engineers kept in mind that it was to be a two-cylinder motor and must meet conditions found only with two cylinders—they realized that merely adding another cylinder to a single would not make a **successful** twin.

Cooling the rear cylinder was one problem which was solved by making the flanges of both cylinders horizontal, so that the air sweeps freely through and carries away the heat from both cylinders instead of leaving the rear in a dead air pocket behind the front. Bearings of generous size—far larger and able to work under greater loads than had been dreamed of on other motors; exquisite balance that by eliminating vibration allows remarkable power and speed to be developed; large, free gas passages that let out the burnt charge and take in the fresh one most easily; efficient and unfailing lubrication of every bearing surface; these are some of the other points that make the Yale twin motor the most powerful engine of its size ever used in a road machine.



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"The Tires of Greater Service"

Continental-Erie Tires are not only the "EZiest" tires on the pocket book in point of upkeep, but they are EZ on the whole motorcycle organism.

Their great resiliency and service-giving qualities have proven to thousands of riders that they're indisputably "The Tires of Greater Service."

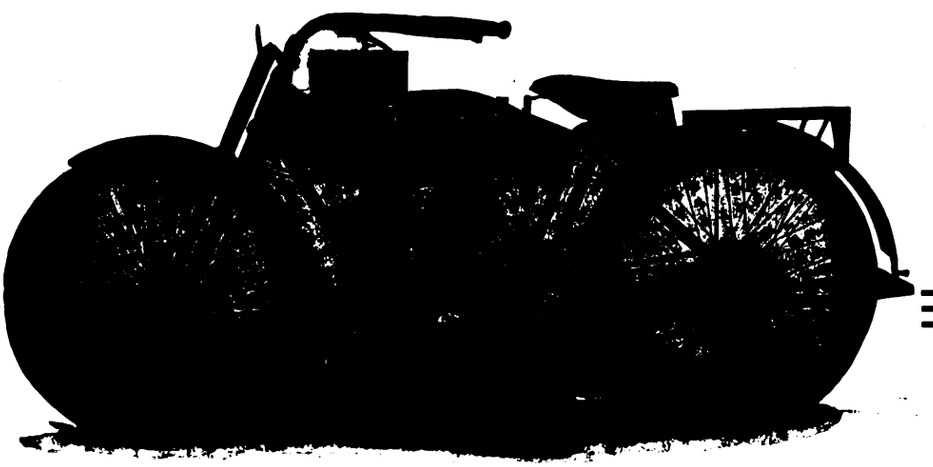
Continental-Erie Tires give greater service because "Quality" of output has been striven for instead of Quantity of output. In ONE and only ONE tread are these tires made—studded, which has proven the most efficient and durable from every standpoint.

Concentration of production effort is exemplified in Continental-Erie Tires.

Ask the Jobber, He Knows

CONTINENTIAL RUBBER WORKS, Erie, Pa.

PAUSE AN INSTANT



Before Signing That Deposit Check

The "R-S" costs more to make--but less to use

Can you as a dealer have a better argument for selling or you, Mr. Rider, a more practical reason for buying a motorcycle?

It is actually so, that the cost of upkeep of the R-S is less than any other motorcycle marketed. The R-S was singled out among the many motorcycles at the New York Show by three automobile engineers as representing the highest type of mechanical construction in a motorcycle. The more care we give in the building—the less care you will have in the repairing. Won't you take the first step to convince yourself? Send for our catalog and selling proposition.

Reading-Standard Co.

340 Water Street **Reading, Pa.**

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SO. BEND RESIDENT WANTS NAME OF YOUNG'S MACHINE

Saw the Article in Regard to the Wonderful Record Made by Fay Young's Motorcycle and Writes and Asks for Name of Machine.

Deputy Sheriff Fay Young in opening his mail this morning found a letter from a resident of South Bend, Ind., the writer stating he had seen an article in regard to the record of the motorcycle ridden by Mr. Young, it traveling 18,000 miles without having a thing done to the motor, and he asked that the deputy forward him the name of the fachine and the year it was built. Depufy Young rides a twin cylinder Merkle, seven horsepower machine.

IN HYDRO-AEROPLANE

"The World's Best Motorcycle"

"Wonderful Economy," "Fastest machine on two wheels," "Lowest cost of upkeep," and similar phrases do not stand for much unless backed up by actual performance.

Read any of the motorcycle advertisements being published today. Nine-tenths of them are about as enlightening as the hieroglyphics on an obelisk of Pharaoh's time. Each machine is the best, but you must take the manufacturer's word for it. There is nothing to back up the cheerful statements and glowing typographical phrases.

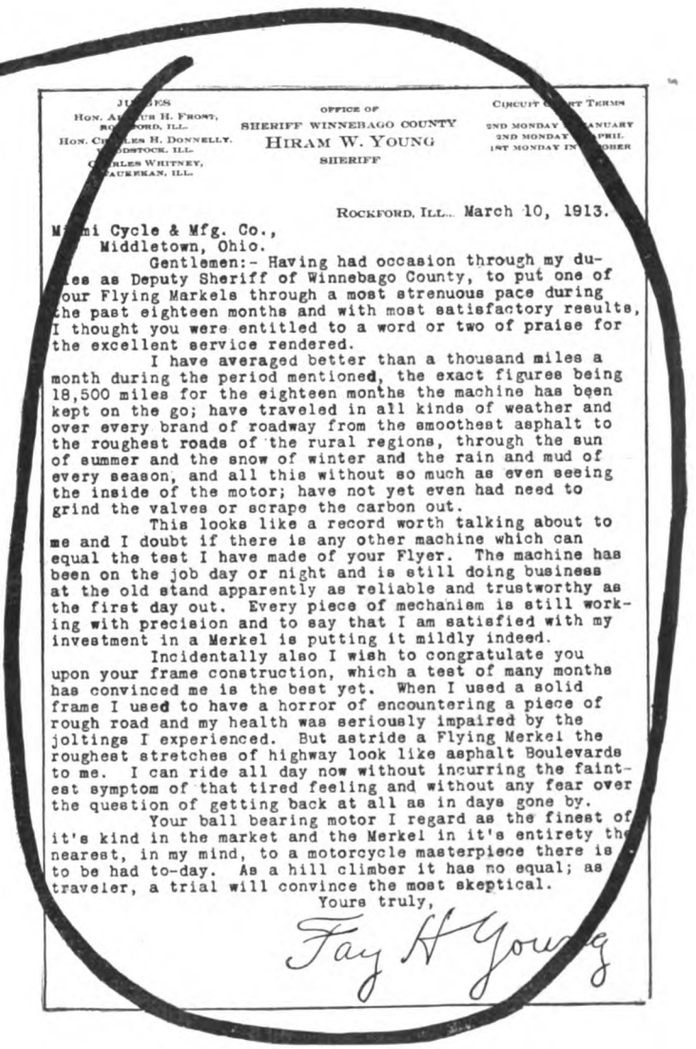
"Made its name on Merkel Mileage"

What the rider should have is facts—indisputable incidents to prove the merits of the motorcycle being talked about. Every statement made by the makers of the Flying Merkel is substantiated by real performance. Sheriff Fay Young's experience is merely the experience of all Flying Merkel riders.

Have you seen our new art catalog, which fully describes the Self-Starting Two-Speed Flying Merkel Models for 1913? It's free for the asking.

The
Miami Cycle & Manufacturing Company

300 Hanover Street - - Middletown, Ohio



JUDGES
Hon. Arthur H. Frost, Rockford, Ill.
Hon. Charles H. Donnelly, Woodstock, Ill.
Charles Whitney, Waukegan, Ill.

OFFICE OF
SHERIFF WINNEBAGO COUNTY
HIRAM W. YOUNG
SHERIFF

CIRCUIT COURT TERMS
2ND MONDAY IN JANUARY
2ND MONDAY IN APRIL
1ST MONDAY IN OCTOBER

Rockford, Ill., March 10, 1913.

Miami Cycle & Mfg. Co.,
Middletown, Ohio.

Gentlemen:- Having had occasion through my duties as Deputy Sheriff of Winnebago County, to put one of your Flying Markels through a most strenuous pace during the past eighteen months and with most satisfactory results, I thought you were entitled to a word or two of praise for the excellent service rendered.

I have averaged better than a thousand miles a month during the period mentioned, the exact figures being 18,500 miles for the eighteen months the machine has been kept on the go; have traveled in all kinds of weather and over every brand of roadway from the smoothest asphalt to the roughest roads of the rural regions, through the sun of summer and the snow of winter and the rain and mud of every season, and all this without so much as even seeing the inside of the motor; have not yet even had need to grind the valves or scrape the carbon out.

This looks like a record worth talking about to me and I doubt if there is any other machine which can equal the test I have made of your Flyer. The machine has been on the job day or night and is still doing business at the old stand apparently as reliable and trustworthy as the first day out. Every piece of mechanism is still working with precision and to say that I am satisfied with my investment in a Merkel is putting it mildly indeed.

Incidentally also I wish to congratulate you upon your frame construction, which a test of many months has convinced me is the best yet. When I used a solid frame I used to have a horror of encountering a piece of rough road and my health was seriously impaired by the joltings I experienced. But astride a Flying Merkel the roughest stretches of highway look like asphalt Boulevards to me. I can ride all day now without incurring the faintest symptom of that tired feeling and without any fear over the question of getting back at all as in days gone by.

Your ball bearing motor I regard as the finest of it's kind in the market and the Merkel in it's entirety the nearest, in my mind, to a motorcycle masterpiece there is to be had to-day. As a hill climber it has no equal; as traveler, a trial will convince the most skeptical.

Yours truly,

Fay H Young

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YOUR PROFIT

be it figured in pleasure and comfort or cold dollars and cents, may be increased by reading the following analysis of our

Spring Touring Number

—the most valuable and practical issue of Motorcycle Illustrated ever published.

Appears May 15

ANALYSIS

What the Touring Number will Accomplish — It will inspire the spirit of touring and will make each tour productive of the greatest pleasure, comfort and ease.

How the Results Will be Obtained

Where to Tour — Shown by maps and well illustrated touring articles prepared especially for Motorcycle Illustrated by Robt. Bruce of the A. A. A. Route and Service, one of the foremost touring authorities in the country. These touring articles will incite even the timid motorcyclist to tour.

How to Tour — Shown by 12 service articles by authoritative writers on the following subjects: Magnetos and spark plugs; carbureters, brakes and clutches; speedometers; tires; lamps, etc.; transmission lubrication; clothing; tandems; sidecars; saddles; supplies and minor accessories.
Complete tabulation of 1913 motorcycles.

Treatment of Service Articles — A—These service articles, taken as a unit, will instruct the reader how to plan a tour; how to equip the motorcycle and saddle-bag for touring; what clothes to wear; how to prevent and overcome mechanical troubles; how to keep the equipment in the best possible condition.
Each individual service article will have 100% of value—there will be a punch on every page.
B—Each separate service article will show how that particular article of equipment plays an important part in a successful tour—the necessity for it and how to maintain it in the best condition.
C—Appearing right after each service article will be a tabulation of the manufacturers of that article. The object is to show the need and then to show what concerns manufacture the article.
No comparisons will be made.

Value to The Reader — Because it will be a valuable touring guide and trade reference book—a book that will be kept for reference purposes. It will be valuable for its service articles alone. It serves a fourfold purpose: Where to go; how to go; what to buy; where to buy it.

Value to The Advertiser

1—By reason of its fourfold service to the reader it will be constantly referred to, thus greatly increasing the life of the advertisement.
2—With its guaranteed circulation of 17,000 it will be read probably at least *once*, by 35,000 people vitally interested in motorcycling.
3—It will put an advertiser's proposition before a buying power of $22,000,000.
4—It will directly foster the sale of touring equipment by inspiring the desire to tour, and it will indirectly increase the sale of motorcycles by causing a greater and wider publicity for the motorcycle resulting from tour-taking tourists.

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Thor

The Supreme Value of the THOR Motorcycle is shown in the wise selection of the prospective purchaser. He will demand a machine which embodies these four elements:

The vehicle itself, its construction, design, power, economy, accessibility.

Its adaptability for the special service in which it will be used.

The permanence and repute of the manufacturer.

The facilities of the manufacturer to give service after the vehicle is in commission.

If it's quality you want the THOR will please you. We have the facilities and the organization to manufacture motorcycles of the highest grade. Our products are always of the same high standard, the same high class of workmanship.

When you order the THOR you can always depend upon getting exactly what you order and the THOR factory is back of every order that leaves the factory. You get absolute satisfaction.

Service on deliveries, we are proud to say, is backed by all departments of our organization.

THREE MODELS—ALL LEADERS.

All Chain Drive and THOR Positive Free Engine Clutch.

Model 13-M 4 HP Single	**$225.00**
Model 13-W 5 HP Single	**240.00**
Model 13-U 7 HP Twin	**290.00**

Booklet, giving full particulars and complete specifications, mailed on request.

Aurora Automatic Machinery Company

1307 MICHIGAN AVENUE CHICAGO, ILLINOIS

Pacific Coast Distributor: Pacific Motor Supply Co., 1440 Market St., San Francisco, Cal.
New York City Distributor: New York Motorcycle Co., 782 Eighth Ave., New York, N. Y.
Boston, Mass., Distributor: W. F. Mann Motor Co., 356 Columbus Ave., Boston, Mass.

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SPLITDORF

"Always There"

SPLITDORF MAGNETOS in appearance are about as attractive as it is possible to make a mechanical contrivance—they are the gems of the magneto ignition field.

SPLITDORF MAGNETOS in performance cannot be beaten—they give a hotter spark at slower speed than any other make of magneto.

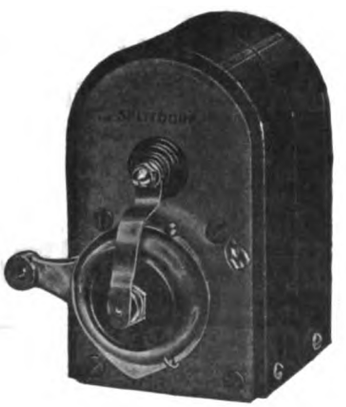
And distinct features in SPLITDORF MAGNETOS are not wanting to place them in the front rank where rugged service is required—where the ignition can always be depended upon—where the fat spark is always obtainable.

In the detail of brush holder and cable connection—vital in the stress of road going under bad weather conditions—the SPLITDORF is supreme.

The cable is easily detachable and a skirted terminal plug makes a waterproof connection, the disassembling of which is simplicity itself. Here, there is no special screw driver required, the terminal plug being removable without touching the brush-holder, which, however, is itself easily detached yet thoroughly waterproof.

SPLITDORF MAGNETOS are proof against short circuits—their workmanship and service are guaranteed.

"New ignition for old" is a special exchange proposition of great interest to every owner of a gasoline motor that is not equipped with SPLITDORF up-to-the-minute ignition. Save time and money and write or call for particulars today.



Splitdorf Electrical Co.

98 Warren Street

NEWARK, N. J.

BRANCHES

Boston.....180 Massachusetts Ave.	New York.....16-20 West 62rd St.
Chicago.....1110 S. Michigan Ave.	Philadelphia..Juniper and Cherry Sts.
Detroit.....866 Woodward Ave.	San Francisco.....1028 Geary Street
Kansas City.....1828 Grand Ave.	Seattle.....1628 Broadway
Los Angeles....1228 South Olive St.	LONDON BUENOS AIRES

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Your oil must reach *all* friction points

The friction points in a steam engine are reached with lubricants through special mechanical appliances, and separate oil cups.

In the motorcycle motor, they are all reached through one lubricating system.

Your motor, therefore, requires:

An oil whose "body" or thickness is suited to your feed system —an oil that will properly feed to all the friction points.

If you use an oil whose "*body*" is unsuited to your feed requirements, or whose lubricating *qualities* will not properly withstand the demands of service, you will get one or more of the following results:

(1) Escape of the compression and explosion past the piston rings.

(2) Unlubricated cylinder walls at the upper end of the piston stroke.

(3) Imperfect lubrication of many of the bearings.

(4) Excess carbon deposit. (Due to the oil working too freely past the piston rings and burning in the combustion chamber.)

(5) Excessive oil and fuel consumption.

(6) Worn wrist pins.

(7) Unduly-rapid deterioration in your motor.

(8) Loose bearings.

(9) Noisy operation.

In different motors, the many parts differ both in measurement and construction. No one oil can possibly meet the feed requirements of all motors.

To establish a sound guide to correct lubrication we have therefore taken a step of the utmost importance to the motorcyclist.

Each season we carefully analyze the motor of each make of motorcycle.

Based on this analysis, and on practical experience, we specify in a lubricating chart, printed on the right, the grade of Gargoyle Mobiloil we have found best suited to each of the various models.

This chart represents the professional advice of a company whose authority on scientific lubrication is unquestioned the world over — the Vacuum Oil Company.

If you use oil of less-correct **"body"** *or of lower lubricating* **quality** *than that specified for your motorcycle, incomplete or inefficient lubrication is certain to follow. Unnecessary friction, and ultimate serious damage must result.*

We will mail on request a booklet containing our complete chart together with points on lubrication.

GARGOYLE

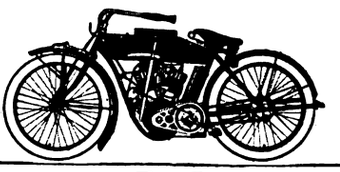
Mobiloil

A grade for each type of motor

The various grades, refined and filtered to remove free carbon, are:

Gargoyle Mobiloil "A"
Gargoyle Mobiloil "B"
Gargoyle Mobiloil "Arctic"

They are put up in 1 and 5 gallon sealed cans, in half-barrels and barrels. All are branded with the Gargoyle, which is our mark of manufacture. They can be secured from all reliable garages, automobile supply stores, and others who supply lubricants.



Correct Lubrication

SMOOTHEST OPERATION | MOST POWER | FEWEST REPAIRS | LONGEST LIFE

Explanation. In the schedule, the letter opposite the motorcycle indicates the grade of Gargoyle Mobiloil that should be used. For example: "A" means "Gargoyle Mobiloil A." "Arc." means "Gargoyle Mobiloil Arctic." The recommendations cover all types of the same make unless otherwise noted.

Model of	1908		1909		1910		1911		1912		1913	
MOTORCYCLES	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
American					B	A	B	A	B	A	B	A
American Peugeot (2 cyl.)			B	A	B	A	B	A	B	A	B	A
American Peugeot (4 cyl.)							A	Arc.	A	Arc.	A	Arc.
A. M. C.											B	A
Apache	B	B	B	B								
Armac	B	A	B	A					B	A		
Arrow									B	A	B	A
Aurora									B	A		
Auto-Bi	B	A	B	A								
Auto-Tri											B	A
Bailey Flyer											B	A
Black Hawk									B	A	B	A
Bradley									B	A		
Breed									B	A		
Crouch	B	B	B	B								
Curtiss	B	A	B	A	B	A	B	A	B	A		
C. V. S.					B	B	B	B	B	B		
Dayton											B	A
De Luxe (1 cyl.)							B	A	B	A	B	A
De Luxe (2 cyl.)							A	Arc.	A	Arc.	A	Arc.
Detroit							B	A	B	A		
Detroit Bi-Car									B	A		
Eagle					B	B	B	B	B	B	B	A
Electra									B	A		
Emblem (1 cyl.)			B	B	B	B	B	B	B	B	B	B
Emblem (2 cyl.)					B	A	B	A	B	A	B	A
Erie	B	B	B	B								
Excelsior	B	A	B	A	B	A	B	A	B	A	B	A
Flanders									B	A	B	A
F. N.	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Geer	B	A	B	A	B	A	B	A	B	A	B	A
Gerhart									B	A		
Greyhound					B	A	B	A	B	A	B	A
Harley-Davidson	B	A	B	A	B	A	A	Arc.	A	Arc.	A	Arc.
Haverford							B	B	B	B		
Hilaman	B	A	B	A								
Henderson									A	Arc.	A	Arc.
Indian (1 cyl.)	B	B	B	B	B	B	B	B	B	B	B	B
Indian (2 cyl.)	B	A	B	A	B	A	B	A	B	A	B	A
Iver Johnson									B	A	B	A
Jefferson											B	A
Kokomo									B	A		
Majestic									B	A	B	A
Manson	B	B										
Marvel					B	B	B	B	B	B	B	B
Merkel	B	A	B	A	B	A	B	A	B	A	B	A
Michaelson											B	A
Minerva	B	A	B	A								
Minneapolis			B	A	B	A	B	A	B	A	B	A
M. M.	B	A	B	A	B	A	B	A	B	A	B	A
Monarch									B	A	B	A
Motorette									B	A	A	A
New Era			B	A	B	A	B	A	B	A	A	A
New Hudson											B	B
N. S. U. (1 cyl.)	B	B	B	B	B	B	B	B	B	B	B	B
N. S. U. (2 cyl.)			A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Peerless							B	A	B	A		
P. E. M.									B	A	B	A
Peugeot	B	A	B	A	B	A	B	A	B	A	B	A
Pierce (1 cyl.)			B	A	B	A	B	A	B	A	B	A
Pierce (4 cyl.)			A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Pirate											B	B
Pope							B	B	B	A	B	A
Racycle							B	A	B	A		
Reading Standard	B	A	B	A	B	A	B	A	B	A	B	A
Reliance	B	B	B	A	B	A	B	A	B	A	B	A
Royal	B	B	B	A	B	A						
Schickel							B	A	B	A	A	Arc.
Scout											B	B
Shaw											B	A
Theim	B	A	B	A	B	A	B	A	B	A	B	A
Thor (1 cyl.)	B	B	B	B	B	A	B	B	B	B	B	A
Thor (2 cyl.)	B	A	B	A	B	A	B	A	B	A	B	A
Torpedo	B	B	B	B	B	B						
Wagner	B	B	B	B	B	B	B	B	B	A	B	A
Yale (1 cyl.)	B	B	B	B	B	B	B	B	B	B	B	B
Yale (2 cyl.)					B	A	B	A	B	A	B	A

VACUUM OIL COMPANY

Rochester, U. S. A.

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NEW YORK	CHICAGO	DETROIT	PHILADELPHIA	BOSTON	INDIANAPOLIS
29 Broadway	Fisher Bldg.	Ford Bldg.	4th & Chestnut Sts.	49 Federal St.	Indiana Pythian Bldg.

Distributing warehouses in the principal cities of the world.

When writing to advertisers, please mention MOTORCYCLE ILLUSTRATED.

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THE DEPENDABLE DAYTON

The letter below is another confirmation of our claims of the Dayton superiority.

The Davis Sewing Machine Co., April 18, 1913.
Dayton, Ohio.

Gentlemen:—

Having ridden all standard makes of motorcycles for the past five years and feeling that I am in a position to express an opinion, I wish to say that the **DAYTON** Motorcycle which I have been using in Service of the Hospital Corps, O. N. G., during the flood period in Dayton, O., has given perfect satisfaction in every respect under most trying conditions of heavy mud and water, displaying wonderful power on the hills and a "never say die" spirit of taking you "there and back." The **DAYTON** is the most powerfully constructed and the smoothest running machine I ever had the pleasure of riding.

Very truly yours,
WM. S. WOODROW,
1560 Northington St., Columbus, Ohio,
2nd Field Hospital, O. N. G.

THE DAVIS SEWING MACHINE COMPANY

Dept. B, DAYTON, OHIO

The Beckley-Ralston Co.
Chicago, Ill.
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Dayton Cycle Co.
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Oregon.

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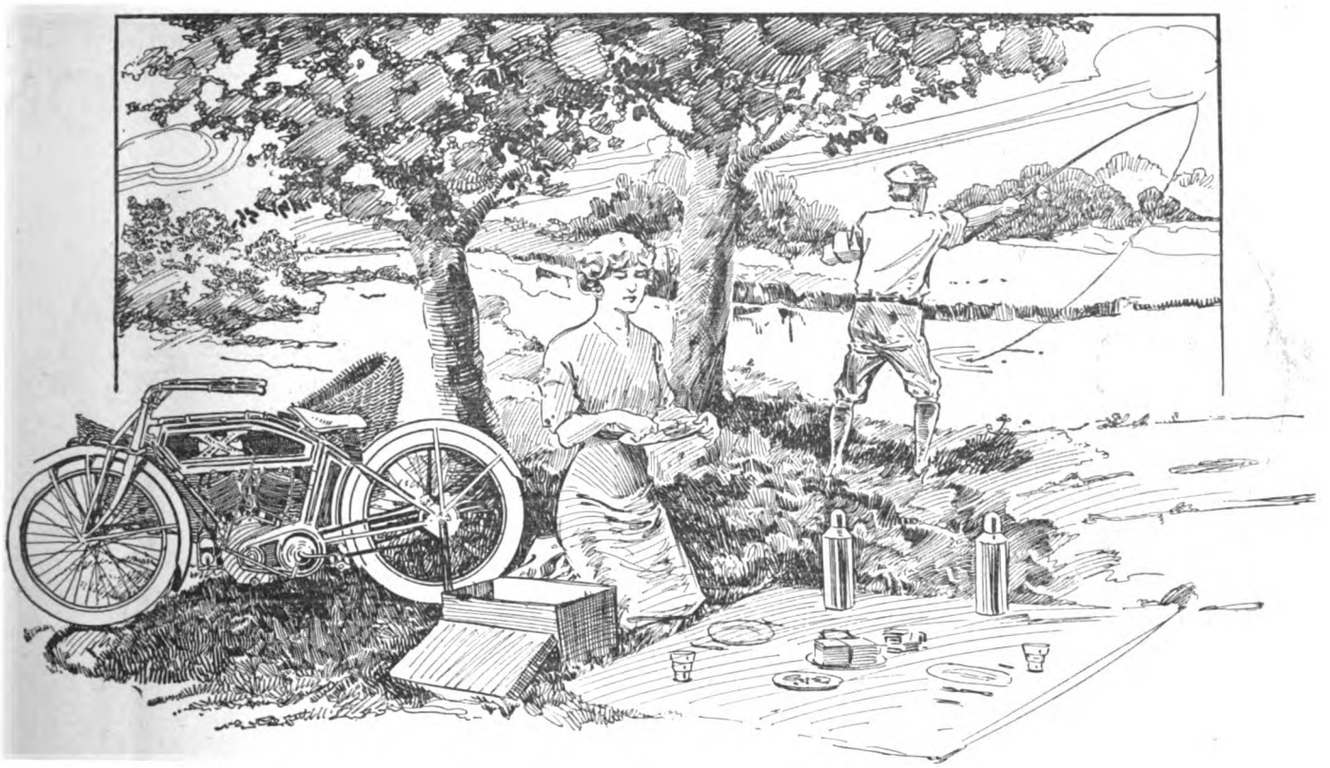

Excelsior Enjoyment

At last Spring is here. All the enjoyments you anticipated will be realized if—and this "if" is important—*you own an Excelsior Auto-Cycle.*

The "X" takes you and your friend wherever you want to go without the least bit of fatigue. And that's a big point.

There's no use in planning a picnic, fishing trip or outing and arriving on the scene all out of sorts.

Excelsior Comfort

One reason for the "X's" unequalled comfort is the Kumfort Kushion Seat Post. This suspends the rider's weight between two adjustable springs so designed that it eliminates the recoil as well as the shock of the bump.

Excelsior Control

The Excelsior is *always* under the control of the rider; absolutely. The clutch on the "X" is operated by means of positive steel rods and forged connections applied to the left hand grip and is firmly locked in or out of gear by a simple twist of the wrist.

Excelsior Motor Mfg. & Supply Co.

Offices and Factory, 22d and Union Sts., Chicago

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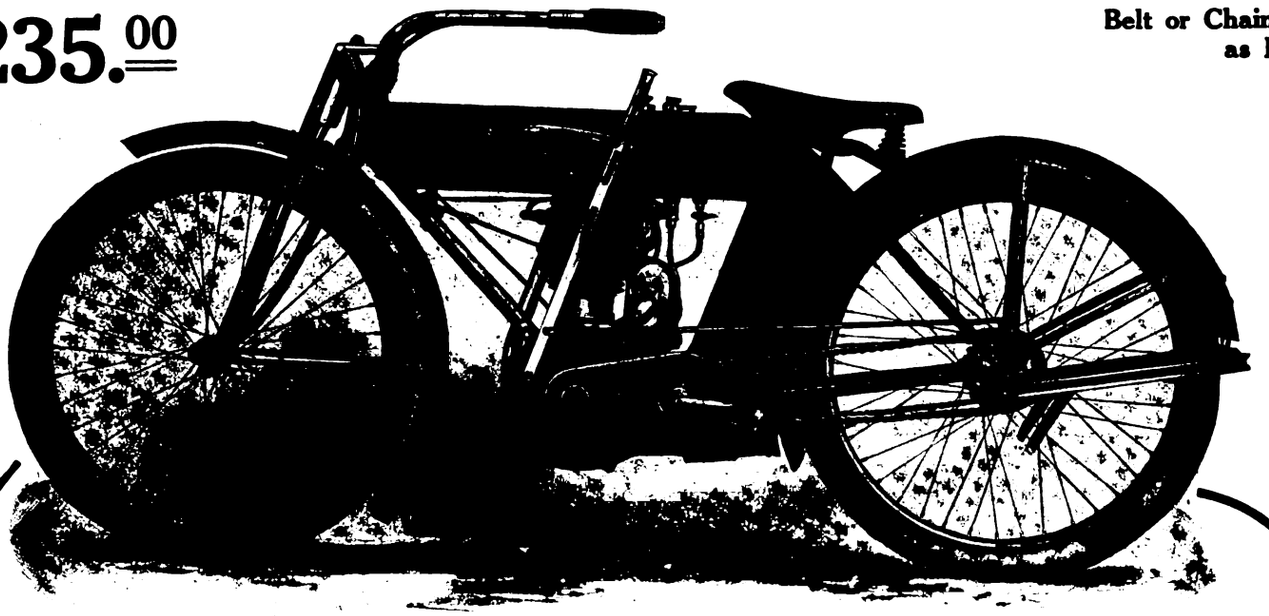
$235.00

Belt or Chain Drive as Desired



Be the Lucky Man in Your Territory

We have decided to establish a few new selling agencies for the "Black Hawk" in good territory which is still open.

Not many, though, because we will not force our factory capacity, nor fail to live up to delivery agreements.

If you as a dealer wish to give your customers good, sound, honest motorcycle value, you will write us for agency propositions. If we get together on this, you will be sure to be the lucky man in your territory, as

The BLACK HAWK

has all the features that riders demand—its worth to the rider is far above the $235.00 price set upon it—and its worth to you is unquestionable, as you can sell the "Black Hawk" with the absolute assurance of pleasing your patrons and with the knowledge that the machine will give good service, month after month for years.

Read the star features of the "Black Hawk" and you will learn why this marvel of motorcycle construction not only sells itself, but that every machine sold sells another, which means increased business, increased profits to you.

Booklet, terms, etc., upon request.

Write us while your territory is still open.

Trade Mark

BLACK HAWK

BH

Star Features That Sell the "Black Hawk"

In showing the "Black Hawk" to a customer, all that will be necessary to make a sale will be to point out that this motorcycle looks better, acts better—is better—and yet the price is only $235.00. For instance:

If the rider wants speed, the "Black Hawk" has it.

If the rider wants power, he gets enough to take him up the highest hills, over rocky roads, over sandy stretches—through mud or snow—or anywhere he wants to go—and then have some in reserve.

If the rider wants riding comfort, the "Black Hawk" beats them all with its Spring Seat Post and Spring Fork which cannot bottom. The low center of gravity adds greatly to its ease of handling. If the rider wants appearance, the "Black Hawk" stands way above the rest. Straighter, neater, more graceful lines, have never been seen even in the highest priced automobiles.

That's speed, power, comfort that can't be beat. And when you come to figure in the Mechanical Oiler, automatic in action—which answers the lubricating problem—the Simple Grip Control, Free Engine Clutch in rear hub—which makes the rider master of the machine at all times—you will admit that the "Black Hawk" has it on any other motorcycle that ever came out of a factory.

If you are looking for a motorcycle that won't disappoint you or the rider, get the agency for the "Black Hawk"—it will pay you.

BLACK HAWK MOTOR CO. Dept. B Rock Island, Ill.

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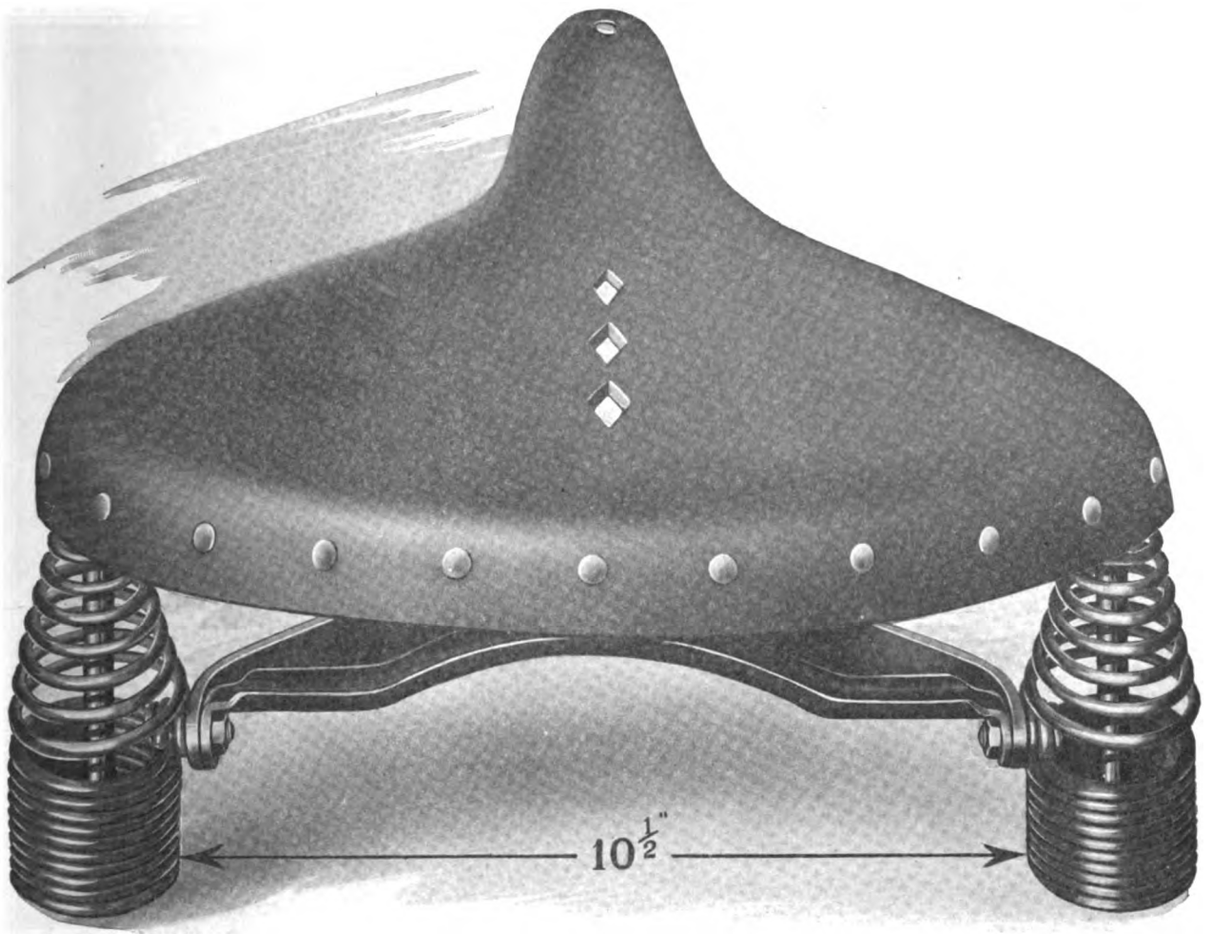

Troxel Special No. 3 Motorcycle Saddle. Size of Top, 13 1-2 wide x 15 1-2 long

It Fits Every Motorcycle Made

Troxel Special No. 3 has an inside spread between springs of 10½ inches.

Wide Enough to Spread the Rear Construction of any Motorcycle Made

If your present saddle is not a "TROXEL NO BUMP" you are not getting saddle satisfaction.

Specify a TROXEL on your new machine

There is a difference.

Remember the new No. 3 fits every motorcycle made.
Send for new descriptive circular.

TROXEL MANUFACTURING COMPANY

ELYRIA, OHIO

H. T. ROBERTS, Selling Agent, Railway Exchange Bldg., Chicago

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Prest-O-Lite
For Motorcycles

Test It Out on Your Machine

Don't deprive yourself of the pleasure and safety of night riding with Prest-O-Lite.

You're missing a lot by trifling with troublesome, unreliable gas generators, when Prest-O-Lite Service costs you no more, usually less. Ask any experienced rider.

With Prest-O-Lite you have a brilliant, reliable light that turns on and off like a gas jet. The flame is always steady, no matter how rough the road.

Many times worth its price

Don't consider the price you pay for Prest-O-Lite as money spent—but as an investment. Remember that Prest-O-Lite never becomes second hand. It is in such universal use and demand that it can always be sold for about what you pay for it.

$10.
With gauge.

Trial costs you nothing

We are so sure that you will find Prest-O-Lite indispensable that we make you this proposition.

Put a motorcycle Prest-O-Lite on your machine. Use it for thirty days and nights. Test it out on every kind of road, for city driving and country road work. Then if you find that you can do without it, the test won't cost you a cent. Can you afford not to make this trial?

Ask your dealer or write us.

The Prest-O-Lite Co., 246 East South Street Indianapolis, Indiana

Canadian General Offices and Factory, Merritton, Ont.

Exchange Agencies Everywhere

To Dealers—There are five times as many motorcycle Prest-O-Lites in use today as there was one year ago. Are you getting your share of this business?

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For Her Sake

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What about Her this year? Is she going to enjoy to the fullest extent your motorcycling pleasures? Have you taken her comfort and convenience into consideration?

If you haven't—you should—now. Don't appear selfish.

Make this a season of greatest delight for Her by the purchase of a **Rogers Motorcycle Sidecar.** Thousands of motorcyclists this year are equipping their machines with this source of pleasure for another.

When she rides in a Rogers she will be seated by your side wtih a clear vision ahead. She will not be subjected to the embarrassments and discomforts of "back seat" riding.

The Rogers **looks** and **rides** like a high-priced automobile. Its beauty of design is attracting nation-wide attention. It is not a **box** or a **chair.** It is a miniature automobile body. Extremely roomy. Long, resilient springs, luxurious seat and trimmings insure perfect riding ease. Constructed to maintain perfect alignment and give continuous service. No upkeep. Write for further particulars at once.

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Every motorcycling season great numbers report to the police authorities throughout the country the theft of their motorcycles.

It's going to be the same old story this year.

Are you going to leave yourself open to the **theft** of **your** motorcycle?

There is no reason why you should.

There is a way of insuring yourself against loss and the worry of possible theft for a nominal expenditure.

Buy a Sabo Motorcycle Lock and Be Safe

Thousands of motorcyclists endorse the Sabo. It's a **midget** in **size** but a **giant in strength.** Your equipment is not complete without it. You can carry it in your pocket or tool kit. Once the Sabo snaps on your motorcycle it is safe from thieves and joy-riders. It locks your machine securely to the stand. It cannot be **even wheeled away.**

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As a motorcyclist you have an obligation to the public on foot, to motorists and fellow motorcyclists.

You must give warning of your approach by a thoroughly effective signal. But remember that a signal that terrifies by its sound only increases the peril of those you are trying to warn. It drives them **into danger** instead of **away from it.**

There is one **courteous, friendly, musical way** to give notice of your approach—

The Aermore Exhaust Horn

The Aermore Warning is always distinct and musical. Four melodious notes blend in harmony. Only self-cleaning exhaust horn made. Cannot clog. Easily attached to any motorcycle.

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Let us tell you more about the Rogers Side Car, the Sabo Lock and the Aermore Exhaust Horn. Write to us today and we will send you instructive and interesting literature on these three leaders in their field.

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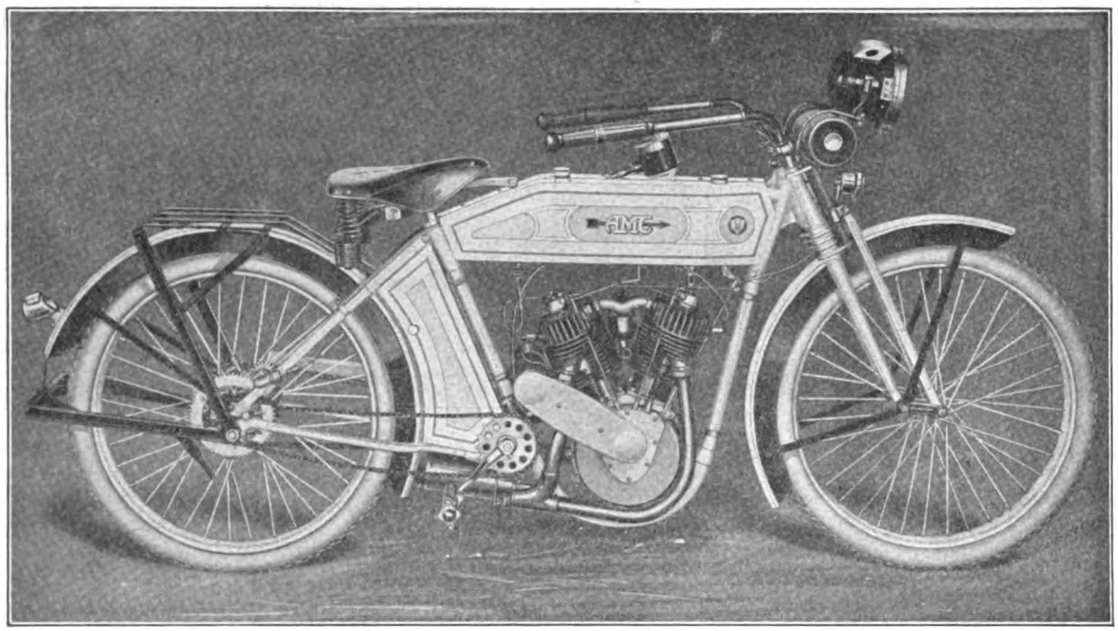

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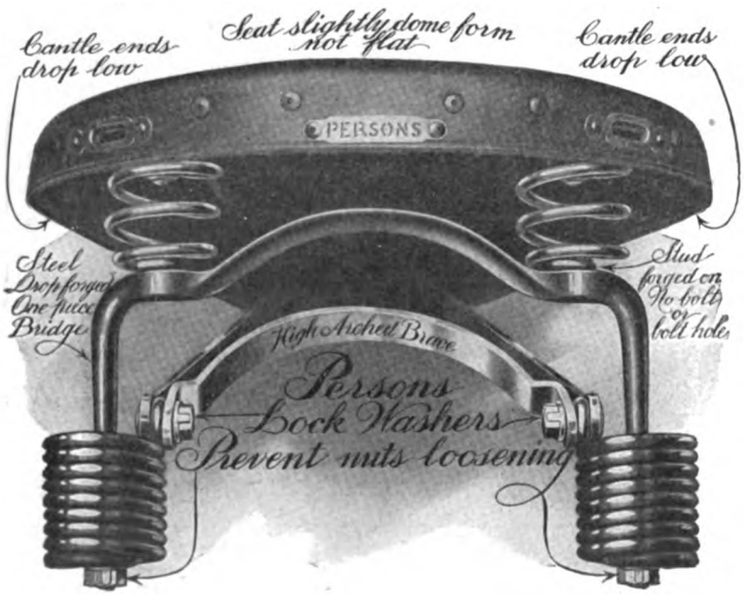

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Mesinger saddles are built for absolutely perfect service. This is no idle statement. When we say perfect service we we mean that Mesinger Saddles furnish the maximum of comfort, durability and strength.

The saddle that you should specify is the saddle that gives you the same unvarying, velvety riding ease whether on boulevards and well-paved roads or over chuck holes, deep ruts, "thank-you-marms," and other unpleasant touring features. That service is always afforded by the MESINGER saddle.

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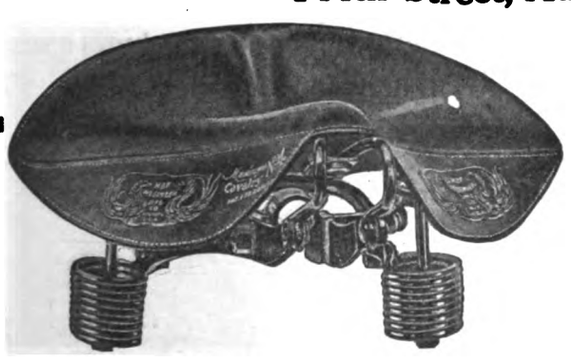

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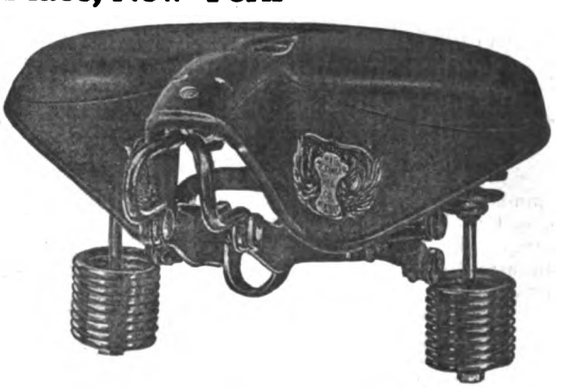

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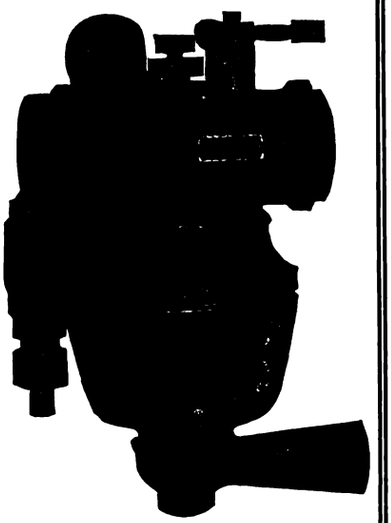

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Never has there been a truer saying than the time-worn old adage, "It's the little things that count." And it is the degree of attention paid to these "little things," that determines oftimes the success or failure of a machine to "get across."

Wise manufacturers are equipping with Diamond "E" Spokes and Standard Pedals because they are quality goods—because they reduce the number of repair shop trips for the rider—because farsighted manufacturers realize that a motorcycle's weakest points are its strongest—and it is that infinite attention to detail which bespeaks perfection.

The dealer who looks ahead will stock heavily with Standard Pedals and Diamond "E" Spokes and Nipples. The motorcycles that are not so equipped will inevitably come to his shop for replacements and it is up to him to sustain his reputation for high-grade repair work by fitting Standard parts.

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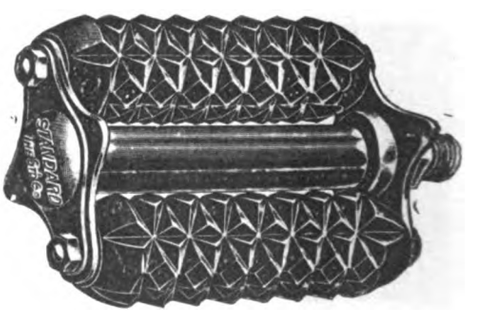

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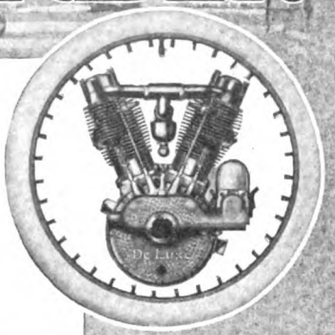

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Because there are four notable features of DE LUXE Motors:

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SO SILENT—that you almost forget that you have a motor running under you. It is like riding in a Pullman.

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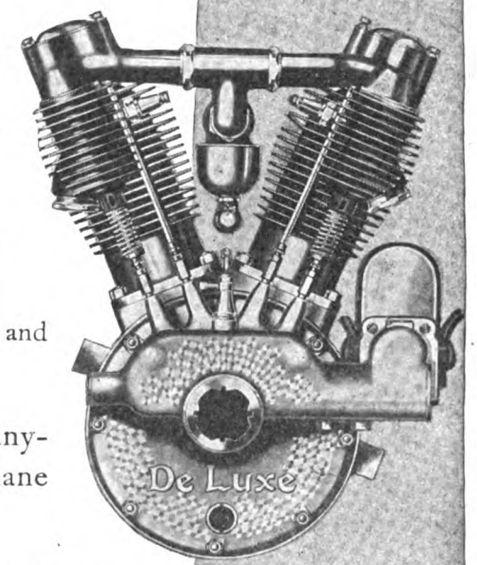
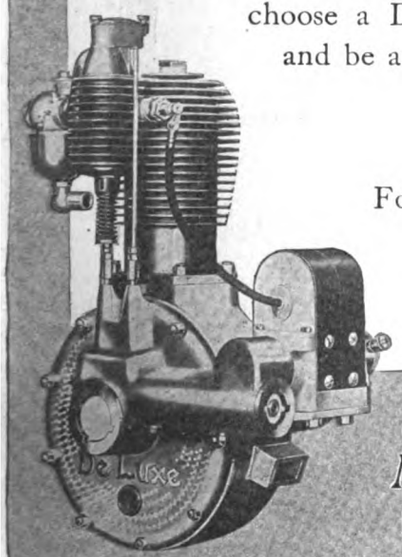
SO POWERFUL—that you can climb the steepest hills and pull through the deepest sand, where others walk.



DE LUXE Motors have done more than anything else to elevate motorcycling to the high plane where no apology is necessary for it.

You cannot afford to be without these advantages, so choose a DE LUXE Motor equipped motorcycle and be a year ahead of the others.



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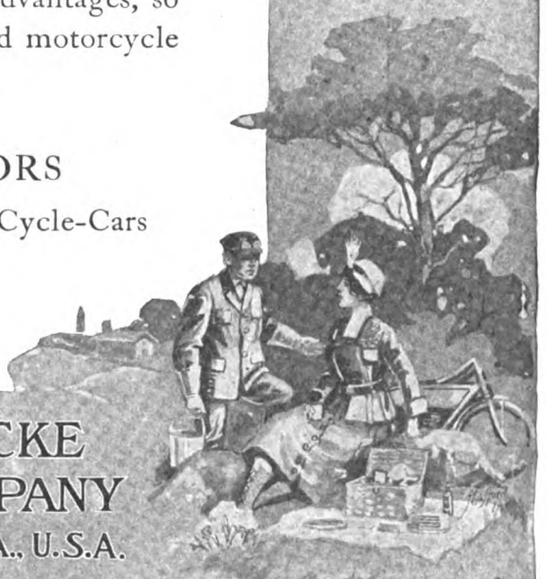

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Measure up this ideal tire against every other tire on the market and then compare it with United States Tires.

You will find United States Tires combine all these identical features of your ideal tire in a way that no other tire on the market approaches.

United States Tires yield an average mileage from 25 to 50 per cent above the highest point ever reached by any tire maker previous to the organization of the United States Tire Company.

In the United States line you can find non-skid treads to suit every possible kind of service—Nobby and Chain treads are the most famous and widely used non-skid tires on the market today.

Rim cutting is a rarity with users of United States Tires.

United States Tires are accurately sized and are extremely flexible, insuring absolute security of fastening together with ease of manipulation.

In fact, if you were to have a tire built to your order it would be difficult for you to specify a single desirable feature that you won't find today in United States Tires.

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MOTORCYCLE ILLUSTRATED

51 CHAMBERS STREET NEW YORK CITY | THURSDAY, MAY 1, 1913 | TEN CENTS A COPY ONE DOLLAR A YEAR

Big Meetings Mark Close of F. A. M. Lecture Tour

On Final Leg of 13,000-Mile Circuit Director Sauer Finds Club Programs Featured by Parades, Banquets and Rousing Debates and More State Organization Booms are Launched—Addressed Clubs in Thirty-Eight Cities From Coast to Coast.

HAVING traveled nearly 13,000 miles and delivered his lecture on "The Motorcycle and The F. A. M." in thirty-eight cities, in all parts of the United States, Chairman J. Leo Sauer, of the F. A. M. Legal Action Committee, and one of the directors of the national body, concluded his long journey with a meeting under the auspices of the New Jersey M. C. in Newark, N. J., Tuesday night. Success even beyond his expectations has attended all of the meetings held during the past fortnight in the following cities: New Haven, Hartford, Boston, Rochester, Buffalo, Cleveland, Detroit, Toledo, Milwaukee, Indianapolis, Louisville, Cincinnati, Pittsburgh, Elmira, Philadelphia and Newark. Several hundred additional memberships were handed to the F. A. M. representative in these cities. Clubs were organized, affiliated or started towards affiliation in Hartford, Boston, Painesville, O., Milwaukee, Greencastle, Ind., Louisville and Corning. Steps have been taken having in view the holding of State conventions this spring or summer in Connecticut, Massachusetts, New York, New Jersey, Pennsylvania, Ohio, Indiana, Illinois, Michigan, Wisconsin and Kentucky, in addition to about a dozen other States in the South and West previously visited by Mr. Sauer. A better understanding of the objects and purposes of the F. A. M. has been obtained by scores of clubs and thousands of individual riders in every State where the motorcycle has achieved popularity.

Mr. Sauer reports that he was surprised to find many evidences of the fact that the Federation's work in behalf of its members and the sport in general was not as well known or as thoroughly understood as it should have been. On the other hand, he discovered practically everywhere a disposition to cooperate with the national organization and was pleased to note that his suggestion to organize the various states aroused enough enthusiasm to insure the carrying into effect, at once, in all of the big states and many of the small ones, this important provision of the F. A. M. constitution and by-laws. In this connection, Mr. Sauer suggested that the secretaries of the different clubs in each State get into touch with one another and have appointed a State Committee consisting of one member from each club, confer with the F. A. M. State Commissioner to select the date and place of the State Convention, and arrange for a State Tour or Endurance Run and a State Race Meet. Mr. Sauer suggested that these State Conventions be planned along the lines of the National Meet in order to afford to F. A. M. members in each State an opportunity to participate in the government of the Federation, to elect their State Commissioners, recommend their State Referees and generally conduct their State affairs to their own liking. He explained that State autonomy or self-government was already provided for, and it simply remained for the states to organize so as to be in position to exercise the privileges to which they are entitled under the F. A. M. Constitution. He added that the ultimate aim, when a sufficient number of states had been organized, was to have the National Assembly consist of State delegates chosen by a vote of club delegates at each State Convention. Mr. Sauer finally urged that arrangements be made, if possible, to hold the State Conventions not later than July 10, and that an effort be made to elect delegates who are not only capable and representative, but who, wherever possible, are willing and in position to attend the National Meet in Denver.

In this connection, it is more than probable that the date of the Denver meet will either be advanced one week so as to open July 21, instead of the 28th, or it may be put back to the third or fourth week in August. The matter is now before the directors, and their decision will be announced as soon as the question is finally determined. The present dates conflict with other programs due in July.

Herewith follow stories of Mr. Sauer's meetings, as sent in by MOTORCYCLE ILLUSTRATED correspondents in the cities visited by the F. A. M. representative during the past two weeks.

TO ORGANIZE STATE

ROCHESTER, N. Y., April 17.—In the handsome club rooms of the Rochester Motorcycle Club, Chairman Sauer, of the Legal Action Committee of the Federation of American Motorcyclists, delivered his lecture on "The Motorcycle and the F. A. M." to a large and attentive audience here tonight. The Rochester club has a membership of about two hundred and is one of the most thriving motorcycle organizations in the country. There is a good quarter-mile track here, and those of the club who have the speed bug are afforded plenty of opportunity to indulge in their inclination that way.

The Rochester boys took very kindly to Mr. Sauer's suggestion that they participate in the organization of New York State. Former District Vice-President Dr. La Salle was present at the meeting and assured the F. A. M. representative of his assistance to the end of arranging for a State Convention to be held in some central point selected by a committee representing the various clubs in the State.

Although there is no local licensing ordinance in Rochester, the club members here are almost unanimous in their opinion that the Federation should support a State licensing bill. Mr. Sauer explained that the F. A. M. had heretofore fought all the legislation proposed in this state because no satisfactory bill had as yet been introduced at Albany. He promised that he would arrange in the near future to take a vote of F. A. M. members in the State with a view to ascertaining the sentiment of the riders in this connection.

Although the Rochester club is affiliated the officers promised the F. A. M. representative that it would be their endeavor to make the organization a hundred per cent. club as soon as possible.

PARADE IN BUFFALO

BUFFALO, N. Y., April 18.—F. A. M. Legal Action Chairman Sauer was given a hearty reception upon his arrival in this city. At night, in a sidecar, followed by one hundred

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and twenty-five riders, the F. A. M. representative was escorted through the principal streets of the city to Johnson Park Hall, where the meeting was held. The occasion brought together the largest number of motorcyclists ever seen in the streets of Buffalo at one time, with the exception of the motorcycle parade held in conjunction with the Buffalo F. A. M. National Meet. Rainy weather kept away several score riders who had arranged to come into the city from Batavia, Lockport and other neighboring towns. The meeting was presided over by President Otto Peters, of the Buffalo Club, and was featured by the presentation of a gold club pin to Mr. Sauer by former President Wm. G. Schack.

As in Rochester, Mr. Sauer's proposal to organize the State was enthusiastically received, while the members of the club also expressed themselves as being in favor of a licensing law covering the entire State. They called attention to the fact that in a little town outside of Buffalo an effort had been made to impose a $1.00 license and that the attempt to enforce it had caused a lot of annoyance to riders in Buffalo and other cities in the vicinity. The Buffalo Club has a membership of one hundred and twenty-five and is affiliated with the F. A. M. This organization will also be made a hundred per cent. club.

BANNER MEETING IN CLEVELAND

CLEVELAND, Ohio, April 19.—Thanks to the efforts put forth by Local F. A. M. Commissioner McConnell and the other hustling officials of the Cleveland Club, the meeting here tonight was one of the most successful which Chairman Sauer, representing the F. A. M., had the pleasure to address in his motorcycle educational circuit of the country. The Cleveland riders turned out over two hundred strong to attend the meeting, held in the Hollanden Hotel, and, which is even more to the point, through Commissioner McConnell, turned over a big batch of new memberships. Mr. Sauer expressed himself as more than pleased with the work which had been done and was being done in Cleveland, and also stated that unless the cities further on in his itinerary had a big surprise in store for him, Cleveland would win the membership cup "in a walk."

The meeting was presided over by Mr. M. F. Bramley, the first speaker being Harry Vail, one of the staunchest promoters of the good roads movement in Ohio. He spoke of the upkeep of the highways and explained how they could be kept in good repair. He suggested that motorcyclists report to the proper officials any cases coming to their attention of roads requiring repair, and also that the club could make itself a big factor by demonstrating its strength to the authorities. He was surprised at the attendance at the meeting and gave the assurance that with nearly five hundred motorcycle clubs distributed throughout the country, an organization like the F. A. M. was in position to do a lot of good work to the end of forwarding the good roads movement.

Mr. Vail was followed by Mr. Sauer, who delivered his address on "The Motorcycle and the F. A. M.," and afterwards opened the meeting for a general discussion. Mr. Sauer answered a number of questions having to do with the organization of the Middle Western board track circuit. He explained that it was his opinion that the arrangements regarding machines, as made by the board track owners, were such as to insure a fair deal to every rider. He stated that he knew of no other way in which the mechanical inequalities of motorcycle competition could be eliminated.

Loraine, Elyria and Painesville were well represented at the meeting. It is only fair to say that during his tour of the entire country, Mr. Sauer had found no more enthusiastic and energetic a worker than Local Commissioner McConnell. For months Mr. McConnell has been working like a beaver and achieved results which have made him very popular with the boys in this part of the country.

After the meeting Mr. Sauer was the guest of L. J. Mueller, representative of the local Indian Club. Those present in addition to Messrs. Mueller and Sauer were E. H. Tracy, F. Blackwood, Len Crandall, C. A. Schmitt, of the Indian Club; L. A. Deering, of the United States Tire Company; W. MacTammany, of the Goodyear Tire & Rubber Company; M. F. Bramley, of Luna Stadium, and Oron Entres, of the Cleveland *News*. The following morning the F. A. M. representative was taken out to Luna Stadium and had an opportunity to witness in actual operation the motordrome circuit plan of training new riders.

THE TOLEDO MEETING

TOLEDO, Ohio, April 20.—Owing to a misunderstanding as to the time of Chairman Sauer's arrival, a large number of local riders were disappointed here this afternoon. Plans had been made to escort the F. A. M. representative from the railroad station and about one hundred and fifty riders had gathered to participate in a motorcycle parade through the city streets. The Toledo meeting, not having been on the original schedule, had been hurriedly arranged and some of the correspondence of the club's officials had not reached the Legal Action Chairman, who did not arrive

President Otto Peters, of the Buffalo M. C.

in Toledo until 5 o'clock, being of the impression that an evening meeting had been scheduled. Although President Weiler and the other club officials as well as Mr. Sauer were sorry that the plans for a big meeting had gone astray, an evening session was hastily arranged. Although the attendance was not what it would have been had the original arrangements been carried out, the meeting was a good one and no little interest was evinced in the proposal to hold an Ohio State Convention. State Commissioner Campbell followed Mr. Sauer and urged cooperation to the end of making this convention a success. The indications were that the Toledo Club can be counted upon to help Cleveland and the other cities in Ohio to make and carry out arrangements for a very successful State Meet.

IN DETROIT

DETROIT, April 21.—In the headquarters of the Detroit Wheelmen, the old Detroit Club being practically extinct, a meeting attended by nearly one hundred riders was addressed by F. A. M. Representative Sauer this evening. Detroit has a live dealers' association, and those who sell motorcycles in this town were well represented.

Among the matters called to the attention of the F. A. M. representative was that of the difficulty attending touring in Canada by American riders. It was claimed that an American going into Canada was compelled not only to pay a Canadian license, but also to bond his machine with the customs officials. There was some question, however, on this score, as several of those present claimed that this was not necessary. Mr. Sauer urged that the club ascertain the facts in the premises, so that something could be done to simplify the situation.

ANOTHER AFFILIATED CLUB.

MILWAUKEE, April 22.—The chief result of the large and most enthusiastic meeting addressed by Chairman Sauer here tonight was the organization of a new club and the election of temporary officials and committees. After Sauer had delivered his address on "The Motorcycle and the F. A. M." he urged the organization of an affiliated club under conditions which would insure its success and interest practically all the riders in the city. It was accordingly voted to organize a club to be known as the Milwaukee M. C., to affiliate with the Federation of American Motorcyclists on a hundred per cent. basis, the initiation fee of $2.00 to include F. A. M. membership. More than seventy-five handed in their names and addresses as charter members of the club. It was decided to make the dues 50 cents a month. The following temporary officials were chosen: President, H. E. Baldwin, F. A. M. State Commissioner; Secretary-Treasurer, Emil Schoene; Organization Committee, G. H. Hamilton, C. A. Carpenter and Frank B. Rodgers; Tour Committee, S. Lacy Crolius, Chairman; "Peach" Snyder and Alfred Trupke. A tour is planned for Decoration Day, and the committee was instructed to rush arrangements.

There is already one club in Milwaukee known as the Cream City Motorcycle Club, with a membership of about thirty-five. Representatives of this club were present at the meeting and gave assurance that they would be glad to join with the newly organized Milwaukee M. C. as soon as the latter club had demonstrated that it was deserving of their support. There is hardly any question about this, as the Milwaukee Club has been organized under most favorable auspices and promises to become one of the leading clubs in the country.

The meeting was presided over by State Commissioner Baldwin. At Mr. Baldwin's right sat Director and former President G. H. Hamilton, who delivered an interesting talk and in particular pointed out the ways and means to the proper organization of a club. He assured the boys that the trade in Mil-

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waukee would contribute to the success of the new venture.

Before and after the meeting, Sauer was entertained by the Harley-Davidson officials, including Walter Davidson, Bill Harley, Bill Davidson, Arthur Davidson, S. L. Crolius and Frank B. Rodgers.

LANTERN PARADE IN INDIANAPOLIS

INDIANAPOLIS, April 23.—A lantern parade, in which one hundred riders took part, featured Chairman Sauer's visit to Indianapolis. Before his lecture was delivered at Morrison Hall, the Indianapolis Motorcycle Club members and others made an impressive showing with a parade which trailed down the business streets and out through the residential section. Mr. Sauer and F. I. Willis, both F. A. M. directors, headed the procession in side cars, and when the parade ended at the Circle, they selected the three best-decorated motorcycles. First prize went to Arthur Klotz, riding an elaborately trimmed DeLuxe, second prize to F. S. Miller's Indian and sidecar, while Oscar Hammell took third prize with a twin Indian.

The meeting in Morrison Hall was opened by President O. F. McClain, of the Indianapolis Motorcycle Club, who introduced Mr. Willis, who in turn introduced Director Sauer.

The fact that there are 11,000 motorcyclists in Indiana, and of that number 1,100 F. A. M. members, was brought out by Mr. McClain This proportion, said Sauer, is about the same as in other states, although it should be much larger. During the meeting twenty-eight new members were enrolled.

An interesting story was told by the F. A. M. traveler, in consequence of some remarks made by F. I. Willis. "Mr. Sauer hails from New York," said Willis, "but he does not believe that the world ends at the Harlem river." Mr. Sauer said he had the realization of the vastness of this country thrown upon him some time ago when he was out in a jerkwater town in Washington, where paper currency is seldom used. "I stepped into a little store to make a purchase," said Sauer, "and I laid down a $5 bill. The clerk looked at me in wonder and at the bill with suspicion. He took the currency back to the boss of the establishment, and I overheard the latter say, 'Well, I reckon that bill is the same as money. They tell me they have a lot of them *back east* in Denver.'"

BANQUET IN LOUISVILLE

LOUISVILLE, April 24.—Chairman Sauer, of the F. A. M. Legal Action Committee, was tendered a banquet at the Old Inn here tonight, State Commissioner Dr. Horine acting as toastmaster. Practically all of the dealers were gathered about the speakers' table. In response to Mr. Sauer's suggestion, a new club to be known as the Louisville M. C. was organized and affiliated on the spot. The new organization enters the F. A. M. as a hundred per cent. club. Temporary officers were elected

After his address Mr. Sauer was asked and answered a number of questions. In this connection, as in many other cities, the F. A M. representative took occasion to remark that he was rather surprised to find so much trade feeling in many places. Most of the dealers in all parts of the country had grown out of their once narrow environment and, as a rule, regarded the situation from a liberal point of view. But even where the dealers are working together in harmony, Mr. Sauer stated that he sometimes found strong trade feeling to exist among the riders themselves. He said that he could not understand why this should be, as there was no reason in the world why the kind of a machine a man was riding should be considered in measuring the popularity of the rider. Although this should be self-evident, said the F. A. M. director, he was some times almost ashamed to find riders of different makes of machines unable and unwilling to cooperate. He expressed gratification over the fact that this

Director Sauer, Commissioner McConnell and Booster Rush, in Cleveland.

condition of affairs did not exist in Louisville and stated his belief that in a year or two hence, it would not be found in any other cities in the United States.

WITH THE CINCINNATIANS

CINCINNATI, April 25.—A rather unusual situation involving the attitude of two local clubs toward one another made it advisable for State Commissioner Jesse Campbell, in Mr. Sauer's behalf, to arrange for a special F. A. M. meeting in this city tonight. For some time Director Sauer had been in correspondence with the Queen City Motorcycle Club and also the Indian Club, both of which are affiliated with the Federation. In consequence of certain competition events, some bitterness between the two clubs had been engendered, so that it was impossible to arrange for a meeting under the auspices of either club that would be attended by the members of both clubs.

At Toledo Mr. Sauer met State Commissioner Campbell, who offered to go to Cincinnati in an endeavor to straighten out the situation here. Mr. Sauer had authorized Mr. Campbell to take any action he thought best and the latter came to the conclusion that the most politic thing to do would be to arrange for a meeting in a neutral place. Accordingly the Hotel Metropole was selected. Both clubs were very well represented, there being an attendance of nearly one hundred, and while the F. A. M. delegate did not attempt to dictate how the local clubs should adjust their differences, he strongly urged their burying the hatchet, as that would certainly be better for both clubs as well as the Federation. Mr. Sauer stated that under ordinary circumstances in a city of Cincinnati's size, one club would be sufficient. If, however, it seemed impossible to bring about an amalgamation there was no good reason why, in the interest of both local organizations and the sport in general, a better feeling could not be encouraged. As representative of the national body, he expressed the hope that every effort would be put forth to bring about a better understanding between the officers and the members of the two clubs, and he offered his services as well as those of the F. A. M. to that end.

The Cincinnati meeting, Mr. Sauer said, was one of the best of his itinerary. He added that it was unfortunate that such a fine lot of fellows could not come to an agreement in some sort of a proposition that would be beneficial to both organizations. While an adjustment of all the old differences cannot be expected immediately, there is every reason to believe that the situation has been at least somewhat improved. Having heard both sides of the story, the F. A. M. representative was satisfied that the responsibility was about equally shared and that an ultimate realization of this fact would in the end be productive of more peaceable relations.

THE PITTSBURGH BANQUET

PITTSBURGH, Pa., April 26.—In spite of the rainy, inclement weather, fifty-seven enthusiastic Pittsburgh motorcyclists (a characteristic Pittsburgh number made famous by the Heinz products) gathered at the Fort Pitt Hotel in the evening to greet J. Leo Sauer, Chairman of the Legal Action Committee of the F. A. M.

Kenneth Banks made an admirable toastmaster, and was responsible for some timely, as well as humorous, remarks. He briefly reviewed the evolution of the motorcycle from the crude motor-driven bicycle with the "seat sprouting out of the top of the engine" to the perfect machine of today.

It was necessary for Mr. Sauer to catch the 10:45 train to Elmira, by way of Buffalo, so he had to condense his remarks somewhat. He discussed in detail the newly formed Touring Bureau of the F. A. M., the work of the Legal Action Committee, and the attitude of the F. A. M. toward racing.

The Touring Bureau has been in existence but six months and already has many hundred routes and tours in various parts of the U. S. It is maintained for the benefit of F. A. M. members, and any rider contemplating a tour, should communicate with this Department of the Federation for information. Mr. Sauer requested local riders to send tours and routes to the Bureau, with landmarks and distances, conditions of roads, etc., for the benefit of other members

Mr. Sauer directed particular attention to the work of the Legal Action Committee. He told of the strenuous activities of the committee against drastic and unfair legislation in various portions of the country. He told of the efforts of certain legislators in various portions of the country to have the motorcycle placed in the same classification as the automobile, and taxed accordingly.

He brought up the question of a just tax for motorcycle, based on the relative damage wrought on the highways by the two wheelers and the autos, emphasizing the slight damage done by the motorcycle.

Mr. Sauer, in no uncertain terms, denounced the open muffler fiends and reckless speed maniacs—a minority class who bring the whole body of motorcyclists in disrepute. Incidentally, he told of being in a certain town on Easter Sunday, and said there was a "churchliness in the very air." The speaker frankly confessed to not attending church as often as he should, but said that everybody, no matter what his creed, certainly deserved to have their religious feelings respected. On this particular occasion, the streets were filled with apparently religious people, church-bound. According to Mr. Sauer, a "young person" on a motorcycle came tearing down the congested street, continually blowing his horn, his muffler wide open, manipulating the controls so as to produce an incessant cannonade of explosions in the muffler. "I observed with par-

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ticular interest the faces of the church-goers and each and every one bore a look of extreme disgust. Ten or more motorcycles might have passed down the same street in a quiet and unobtrusive manner without attracting any particular attention, and it is hoodlums of this type who are in the main, responsible for drastic legislation."

Mr. Sauer said that the question of racing was somewhat out of his province, but that so long as there were different makes of machines and daring riders, there would always be rivalry and competition, and he believed in the sane regulation of such contests by a broad and fair governing body, to keep the sport clean, and to protect the riders against exploitation.

After Mr. Sauer's departure for the train, Toastmaster Banks made some further appropriate remarks. Among other things, he said that while riding to work the other morning, he became convinced of the fact that the Club needed a motto. Almost simultaneously, "F. A. M." came in his mind—"Fellowship Among Members." At present there is too much rivalry among members over the merits of their respective machines.

President Martin indorsed Mr. Banks' remarks, stating that it was all right to believe that your machine was better than the others, but to keep it to yourself.

Mr. Coulter, representing the Homestead M. C., voiced the belief that it would be much better to have a consolidation of all the clubs in the county, with a central location, to be known probably as the "Allegheny County M. C."

ELMIRA'S FINE SHOWING

ELMIRA, N. Y., April 27.—J. Leo Sauer, Chairman of the Legal Action Committee of the F. A. M., delivered his address on "The Motorcycle and the F. A. M." before the Elmira Motorcycle Club, several members of the Elmira Automobile Club and motorcyclists from nearby towns tonight.

President Harry D. Burgess presided over the meeting, and after Mr Sauer had completed his address called upon M. Doyle Marks, president of the Elmira Automobile Club, who maintained that the motorcyclists should devote more of their attention to good roads. He urged greater co-operation upon the part of the Elmira Motorcycle Club with the local Automobile Club, and extended an invitation to have the club participate in the coming run of the auto club.

Secretary Frank D. Pratt, of the Elmira Automobile Club, was the next speaker, and he dwelt upon what could be done in preventing pernicious legislation in the various State legislatures. Mr. Pratt has devoted much of his time to work at Albany, and has made two trips there within the last month to cooperate with autoists all over the State in preventing unreasonable legislation.

Dr. Frank W. Ross told of certain motor vehicle accidents in this city, and stated that he had thus far found no driver or rider guilty of carelessness. The fault is often with the pedestrian.

Ralph D. Webster, of the Eclipse Machine Company, one of the pioneers in the wheel business and formerly a prominent member of the League of American Wheelmen, was next called upon. Mr. Webster moved that a standing vote of thanks be extended Mr. Sauer, which was unanimously carried. Mr. Sauer acknowledged the vote in a few words of appreciation and stated that he would remember his visit to Elmira for many years to come.

During his stay in Elmira Mr. Sauer was entertained at dinner and supper at the home of Mr. and Mrs. Phay B. Rutan. The other supper guests were P. B. Rutan, Ralph Webster, J. C. Ferguson and F. S. Ellett, of the Eclipse Machine Company; President M. D. Marx, Secretary Pratt and Dr. W. F. Ross, of the Elmira Automobile Club, and L. V. Morse, secretary of the Elmira M. C.

After the meeting a big batch of F. A. M. memberships were turned over to Mr. Sauer, including the affiliation of the Corning M. C.

KEEN INTEREST IN PHILADELPHIA

PHILADELPHIA, April 28.—More than one hundred riders attended a most interesting meeting held under the auspices of the Harley-Davidson M. C. in their clubrooms at 1703 No. Thirty-third street this evening. The meeting was called to hear the lecture on "The Motorcycle and the F. A. M." as delivered by Chairman Sauer, of the Federation's Legal Action Committee. The opportunity was also used to introduce to the members of the club and numerous other riders, State Commissioner Marshall, recently appointed by President Patterson.

After having delivered his address, Mr. Sauer answered questions for nearly two hours, particularly bearing upon the classification of riders under the new rules. He explained that under the new classification, the mere fact that a man was connected with the trade did not make him a professional, but that if, being connected with the trade, he also rode on a track where the public was charged admission, professionalism would be the penalty. He explained that a private owner not connected with the trade could ride on any track and under any condition under the rules provided he did not compete for cash or ride against the professional. It seems that the new definitions of amateur and professional, respectively, had been misunderstood here as well as in other parts of the country, and Mr. Sauer said that he was glad to have been afforded an opportunity to explain the new classification.

More than fifty questions were asked during the evening, and they came from every possible angle. Among other things those present showed a keen interest in the F. A. M. representative's suggestion that the State of Pennsylvania be organized with a State Tour or Endurance Run and a State Convention and Race Meet.

The headquarters of the Harley-Davidson Club are situated in a good location opposite Fairmount Park, are prettily decorated and offer attractions to members in the way of a billiard table, bowling alleys, a fine piano, etc. The club has a goodly membership and is composed of boosters all the way through.

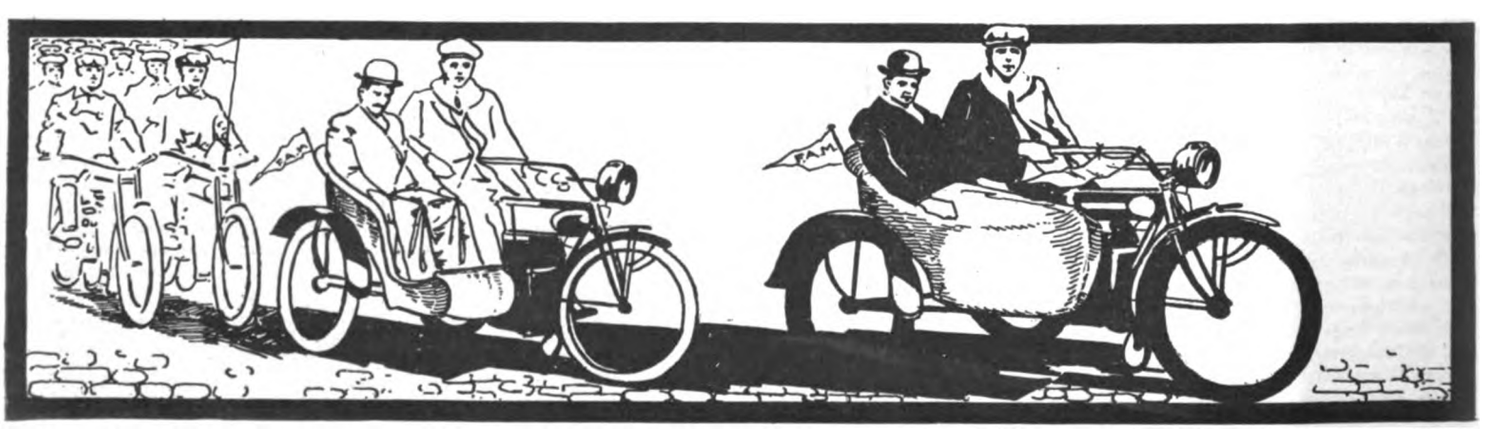
LAST MEETING IN NEWARK

NEWARK, April 29.—Before an audience of about fifty riders, Chairman Sauer addressed the last meeting on his F. A. M. lecture tour tonight. The meeting was held in the rooms of the Newark Board of Trade, and a number of visitors from the Oranges, Elizabeth and other cities were present. The friendliest of feeling towards the F. A. M. was shown, and the Legal Action Chairman was assured of the entire absence of even the slightest dissatisfaction with the Federation. The meeting was held under the auspices of the Affiliated New Jersey M. C., and was in charge of President Pascal.

At the request of several members, Mr. Sauer outlined in detail a plan for organizing the State of New Jersey. The New Jersey Club boys are anxious to take the initiative, and will take action at their next meeting to get in touch with the secretaries of the other clubs in the State to the end of selecting a convention city.

Although Mr. Sauer has completed his circuit of the country, he wishes it understood that he will be glad to address, at any time, any meeting of motorcyclists in or near New York City. In fact, he would appreciate being afforded opportunities to deliver his lecture under the auspices of any motorcycle club in Greater New York or, provided the distance is not too great, in New Jersey, Pennsylvania and lower New York State and New England.

The results of the membership and attendance contests, in both of which silver cups will be awarded by the F. A. M., will probably be announced in a few days.



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LANDING the PROSPECT

DWIGHT · B · PANGBURN

LIKE all gall, which we are told is divided into three parts, brass, cheek and bluff; so all prospects are divided into three parts. Those who want a machine but haven't the money; those who have the money but don't want a machine, and those who have both the desire and the money but don't know what machine they want. Now I have belonged to the first and the last of these classes, and I have dealt with a good many dealers, and it is very clear to me that the action of the dealer has a great deal to do with whether a sale is made or not. Therefore I am going to tell about some of the experiences I have had with various dealers.

All prospects necessarily are not prospects at first. They belong to that class of people —which is growing smaller every day—who know nothing about motorcycles and consequently do not want one. I was in this class five years ago when a friend of mine bought a machine. Of course I took a ride and immediately moved up into the first class mentioned above. I wanted a machine but hadn't the price. Then, like the man who

. . . "went up and down
To seek a dinner in the town,
And looked the bill of fare quite through
To see what his six cents would do,"

I started going up and down and calling on all the dealers in the city (a place of 175,000).

WHY TACT IS A VALUABLE ASSET.

Right here let me say that the one thing a dealer needs more than any other is tact. The dealer who hasn't a good supply of it on tap may manage to make a living, but it will be pretty hard work; he had better start growing some at once, or get out of the business. A junk man in shirt sleeves and without a collar once entered a large metropolitan bank and walked up to the receiving teller's window.

"Is this where you start an account?" he asked.

"Yes," replied the man in the cage, with a smile of amusement, "but you see you have to have $100 to start one."

"I was minded to begin with $100,000," answered the junk man, and shoving his hand down into his pocket he produced a thick package of thousand dollar bills, which he showed to the teller and then took them to another bank.

The motorcycle dealer can turn away custom just as easily, and should always be ready to answer questions civilly and sensibly. I visited one dealer on my first round. He was in a rich neighborhood, and didn't seem to want to bother with me because I didn't have on a linen collar. However, I rather liked the looks of his machine so I stuck around and asked him a few questions. Finally I asked what kind of oil he recommended. He said that he had always found Eureka Sewing Machine oil an excellent one for bicycles, and that it would do for motors too. That was enough for me and I passed up all thought of his line. I found by inquiry that he had had the agency for that machine for over a year and hadn't sold a single one. Nobody would trust a company with such a man for its agent, yet in other localities that machine was one of the best sellers.

A DEALER WITH A BUSINESS HEAD.

Another way in which some dealers lose trade is by having their shops closed. I went five times to see one man before I found his place open. Every time there was a card in the corner of the door which said, "Back in fifteen minutes." Once I waited nearly half an hour but there was no sign of the dealer returning, so I left.

HUNT'S FAMILY OUTFIT

IN THE accompanying photograph appears Fred Hunt, the well-known Indian salesman, with Mrs. Hunt and the two bright youngsters who complete the family. Hunt is an ardent sidecarrist, and it is evident that he does not monopolize the family enthusiasm in this direction. He has made some long jaunts with his Indian and the Milford passenger attachment shown in the photograph, and has never had any road trouble worth speaking of.

The genial Hunt is now covering the states of New York and Pennsylvania for the Wigwam. He reports business brisk and states that there is a lively demand for sidecars. The Hendee Company announced some time ago that it would be ready to start sidecar deliveries April 1, and since that date shipments have been made regularly.

At length there was only one dealer in town that I hadn't called on. I went to his place. He acted as if he was glad to see me and asked what he could do for me.

"I am looking for a machine," said I.

"Are you ready to buy a new one right now?" he asked.

Now none of the others had taken the trouble to find out whether I was in line for a new machine or not. They simply showed the new models anyway, and the result in every case was that I went away without letting them know that a cheap second-hand machine was the best I could hope for, simply saying I would think it over. So I was struck by his sensible way of getting at the matter and said, "No, and I haven't even the price of a second-hand machine right now, but I certainly do want one."

"You look as if you could save up enough to get one," he said.

"I've tried," I answered, "but I go out with the fellows every time we get paid and there's never more than enough left to take me to the next pay day."

"I know what you want," he replied. "It's early in the season now, only the first of March. I have a man who is going to trade in a first-class machine about June first. You can save enough by that time to get it."

"But how?" I queried.

"This way," said he.

Then he brought out one of those little banks the savings institutions use.

"Take this," he said, "and put 50 cents in it every day from now to June first. If you do that faithfully from now until then, you'll have $45 and the saving habit, and I'll let you have the machine. You can pay the balance of the money in the same way."

So that was how I got my first machine, and the saving habit at the same time.

KEEP THE DEMONSTRATOR IN TRIM.

Now for the second class, those who have the money but don't want the motor. I have never been in that class, but I have seen several such folks landed and it was done in as many different ways. Such people can be reached by various kinds of advertisements, but the surest way is to get them to take a ride. Better results come if the dealer himself goes along to smooth out any little difficulties which might arise—and equally important, to pick out smooth roads for the first ride. Then, too, the demonstrator must be in good shape.

When looking about for a new machine I was once asked to ride a demonstrator.

"Guess I'll try Long Hill with it," I said.

"I'd rather you wouldn't today," said the dealer, "it isn't tuned up very well now. Wait till some day when it's running better."

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Well, I took the ride, tried the hill and couldn't make it; do you think I bought that machine?

Another way to get those who think they don't want a machine is to have MOTORCYCLE ILLUSTRATED on file in the shop. Such scoffers usually come in with a man who wants something. While you are taking care of the one get the other to look at the advertising pages of MOTORCYCLE ILLUSTRATED. I have seen "those who came to scoff remain to pray" that their names be put on the order list as a result of such treatment, for next to taking a ride I know of no way of getting up enthusiasm more quickly than by looking at those pages. Anyone who looks them over gets the impression that motorcycles are a very live thing, that they have come to stay and are coming faster all the time, and that everybody is going to have one pretty soon. And about that time the reader finds that he wants one too.

THE DEALER'S PERSONALITY.

Another way of reaching such folks is to get others to talk them over. Sometimes this means splitting commissions, which should not be done, but more often it is cheerfully done by some enthusiastic rider. I firmly believe that the friend whose machine I first rode has been personally responsible for the sale of ten machines to five persons, and has never asked or expected any return for it. The last two of these machines were sold principally by his repeating in public—and emphatically—that a certain model had more improvements per square inch than anything else on the market.

After some time I graduated into the last class, above mentioned, those who have both the inclination and the money for a machine but are not sure what kind they want to buy. Again I began to go around to the dealers' places. I did as almost everyone else does, I looked in the windows first. And I judged a good deal by what I saw as to whether I wanted that machine or not, though I always went in and talked with the dealer too. Also I asked all my friends to tell me frankly what experience they had had with their machines. Finally the choice simmered down to two. As nearly as I could tell I would just as soon have one of them as the other. But there was a tremendous difference in the dealers. One was a clean-cut, straightforward man, always ready to answer questions civilly, no matter how foolish they might seem to him; a man who was willing to admit that there were other good machines on the market, but ready to prove to you that you got the most for your money in his. The other was the kind of a man who takes you off in a corner somewhere and talks in a very confidential way, even if there is no one else in the store. He holds on to one button of your vest the while and stands as close to you as he can. He concluded his first remark with the words,

"And that's the truth too, for I take after me father—I never tell a lie."

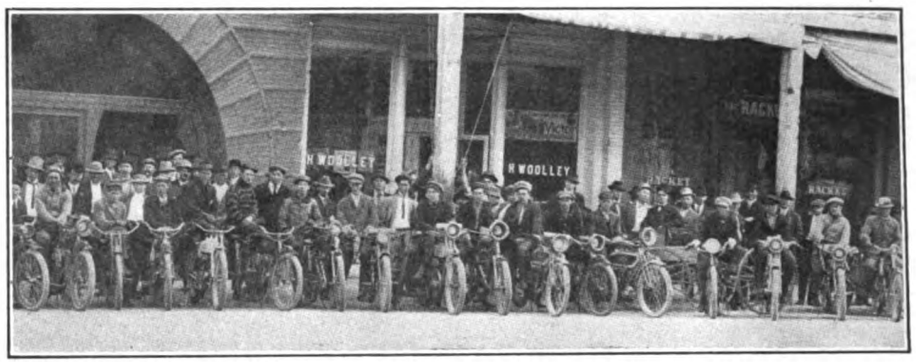
Do you wonder that I doubted him? Then the motorcycle fraternity of the place said that the first-mentioned man would give you a square deal, while the other would crook you if he could. Is it any wonder that I bought from the first man?

A BUSINESS BOOST IN DISGUISE.

One man who didn't know what machine he wanted was led to a choice in this way. The agent put a new machine in the front of the show window. During the night a heavy rain came up and beat through at the top of the window, spattering the new machine all over. The only thing to do was to take it apart and clean it thoroughly. When the dealer had it partly down he decided to go the rest of the way and spread the parts around in the window as a display. The prospect had been thinking of this machine but had decided against it because he was told it was not made well and would not stand up. He happened to pass by and saw the display. He went in and looked the parts over, and being a good mechanic he was struck with the fine workmanship to such an extent that he then and there purchased that very machine.

More dealers could use a card index system with profit. Many of them seem to have no particular way of keeping track of their business. When I was making my tours of the dealers only one ever followed me up, though all of them had my name. This particular man had a card index. He entered every prospect's name in it together with what he wanted, whether new or second-hand, twin or single, and about what price he was willing to pay. Also he listed every one to whom he sent literature, so that he could follow it up. When any one ordered supplies of any kind from him the order was forwarded at once and entered on the man's card. Thus he could tell at a glance just what kind of machine any one had, how long he had had it, what it cost, etc.; in short he could tell instantly just what any certain man's trade was worth to him.

VICTOR ROOS and Miss Grace Jones, of Omaha, Neb., devote a good deal of their time to making a Yale twin live up to its reputation, and the photograph herewith shows them on a recent jaunt. Miss Jones does not confine her road work to the tandem attachment and often makes trips on which she acts as her own pilot.



CLUB FOR YOLO COUNTY

AT a recent organization meeting of the Yolo County M. C., of Woodland, Cal., officers for the season were elected. J. A. Richter is president; R. W. Mullins, treasurer; E. H. Brendel, secretary; O. Fisher, captain; L. E. Hilderbrant, first lieutenant, and H. McGau, second lieutenant. The first club run was recently held to Guinda, where a dinner was served under the auspices of the Yolo County motorcycle dealers. After a short stay the riders returned to Woodland by way of Winters, making a total mileage for the day of 105. The riders shown in the accompanying photograph participated in this run.

ROAD PROGRESS IN COLORADO

MEMBERS of the new State Highway Commission of Colorado, which for the first time is composed entirely of business men, recently held their first meeting and elected J. M. Kuykendall chairman. The question of apportionment of the funds was discussed. In addition to $500,000 of the State's money the counties have made a special levy and have raised $1,000,000, and with this sum the board is planning to build 175 miles of roadway at a cost of $4,000 per mile, as connecting links in the present highway system. It is also planning to build 200 miles of additional roads, making a total of 375 miles during the year.

A vote of thanks was given the State Legislature, now in session, by the motorcycle and automobile clubs for passing the State Highway Bill. In addition to the work being done by the State, Denver will construct and improve the roads from the mouth of Mount Vernon Canyon to Genessee Park, while the city of Golden will improve the road from that city to Mt. Vernon. Colorado riders are also boosting for the proposed bill, presented in Congress by Representative Taylor, of Colorado, which proposed a Lincoln Memorial Highway, to extend from Boston to San Francisco, via Denver.

INDIAN IN ENGLISH EVENTS

THAT the Indian is maintaining its reputation in England is evinced by its showing in the Westmoreland hillclimb, held Easter Monday. The Indians scored as follows: First in 350 c. c. class for amateurs; second in 350 c. c. class free-for-all, on formula. In the 8½ mile open race C. B. Franklin, riding an Indian, finished fifth despite a bad start, he being the only scratch man starting. In the recent annual Jarrott Cup run of the Motorcycling Club of London to Land's End only 45 of the 95 starters finished. Two Indians had perfect scores. In the Dublin (Ireland) M. C. slow hillclimb Franklin tied for second place. The winner of this event rode a three-speed machine.

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Wayside Pointers for a Puzzled Recruit

How a Sooted Spark Plug Caused a New Arrival in the Ranks to Blame His Magneto for a Sudden Stop—A Few Elementary Tips for the Beginner on Getting to the Bottom of Road Troubles.

By Alfred H. Bartsch.

NOT long ago while enjoying a short Sunday jaunt along the east bank of the Hudson I was moved to rest my motor and make a leisurely survey of the scenic features presented by the district, and I stopped at the crest of a hill. The day was one of the few mild ones we have had since Old Man Winter packed his grip and pretended to leave our midst, and I was making the most of the pleasing outlook when I heard the irregular "put-put" of a motor and saw a motorcyclist teetering up the grade with his machine very evidently in distress. Before he reached the top his motor stopped rather suddenly and he was compelled to push the remainder of the distance.

Quite naturally we fell into conversation, and I was a bit surprised to find that the rider was blaming his trouble on his ignition system. My ignition troubles are so few that I can hardly understand why any one else should be bothered, but I listened to the stranger's story. He was a new arrival in the motorcycle ranks and for that reason I was doubly anxious to help him. I believe this is the attitude we should all assume; a brotherly hand extended to the new rider in distress is the finest kind of a boost for motorcycling. Such a policy is not soon forgotten by the beneficiary.

LOCATING THE TROUBLE.

My new friend had a vague idea that nothing short of a complete overhauling of his magneto could put his mount in trim, but I inclined to the belief that his spark plugs were in some way to blame. He was using a twin of a standard make. We examined the plugs and found one of them about as badly coated with soot as any I have ever seen. In fact, I was surprised that it had given any service at all. Here was the secret of the whole trouble. I did not have an extra plug (having set out for only a short jaunt), and the stranger did not have one either. Therefore he was compelled to clean the one that was in use. This was not the simplest task imaginable on the road, but he made a fairly good job of it. When the plug was replaced the motor perked up surprisingly and I suggested that the rider try the hill once more. (It was not a very steep one.) He made the climb without difficulty and was overjoyed at his success.

Then we squatted by the roadside for a little heart-to-heart chat. I warned him against jumping to the conclusion that his magneto must be tinkered with, and suggested that he cultivate a habit of looking elsewhere for the seat of motor ailments before charging stoppages to his ignition machine. If the magneto has given good service previously it should not be suspected until all other conditions have been looked into.

INSPECTING PLUGS AND WIRING.

Presuming the motor to be of the twin-cylinder type, if a continued missing in one cylinder is being experienced (this was what had troubled my friend) it may be taken for granted that there is something wrong with either the spark plug or the wiring from the magneto to the plug. The rider should inspect the cable carefully and assure himself that there is no break in the insulation of the wire, and that there is positive connection at both the magneto and plug terminals. The condition of the plug should be noted with equal care, and it should be seen to that this feature of the ignition system is free from carbon. If it is a porcelain plug care should be taken to see that the porcelain is not cracked; if a mica construction it should be examined minutely with a view to determining whether the mica is porous. Attention must also be given to the gap between the points; these should be not less than one-fiftieth nor more than one thirty-second of an inch apart. An approximate gauge for the distance is the thickness of an ordinary visiting card.

One of the most frequent causes of ignition trouble is short-circuiting in the spark plugs, which, as pointed out above, is caused by soot or carbon forming in the portion of the plug that extends inside the cylinder. This condition can be corrected by thoroughly washing the electrodes and the inside walls of the plug, using gasoline and a stiff brush. It may be advisable to test the plug or plugs by laying them on the engine with the terminal end free from any metal—and the plug, of course, attached to the magneto terminal. When the motor is pedalled over briskly a good spark should appear passing across the gap.

MOST IGNITION TROUBLES EASILY LOCATED.

As a rule the rider will locate his trouble by following the above suggestions. Now and then it may develop that the motor is missing first in one cylinder and then in the other, and this may prove baffling to the inexperienced rider. Under such conditions it is quite likely that the magneto contact breaker points require adjustment, but this should not be taken for granted until the above mentioned system of trouble-eliminating is resorted to.

Strange as It May Seem, a Full Oil-Can Makes the Finest Kind of a Touring Companion.

After discussing elementary ignition conditions with my friend of the sooted spark plug I took occasion to "feel him out" concerning his knowledge of the carbureter, and found that he was almost wholly ignorant of the make-up of his mixing apparatus. I informed him that the success of his riding would depend to a great extent upon his handling of the carbureter, and incidentally warned him against promiscuous tinkering with it—just as I had admonished him to refrain from tampering with his magneto. With the excellent carbureters that are being supplied on standard motorcycles today, there is little that the amateur can do to improve their general operation, aside from using common sense in making the two or three adjustments according to varying conditions of weather and altitude.

Back-firing or "popping" in the carbureter indicates too weak a supply of gasoline, while a sluggish motor points to conditions just the reverse. Flooding may be caused by dirt finding its way under the needle-valve, or by improper adjustment of the needle. An indication of too rich a mixture is a blackish exhaust, and that condition should be remedied as soon as possible, as it will cause sooting and carbon will form on the spark plugs and walls of the combustion chamber; then pre-ignition and overheating may be expected.

All the pointers I have embodied in this little article may be regarded as elementary by the veteran, but my chat with the new arrival in the ranks on my recent trip convinced me that many recruits are in need of just such tips. That's why I have taken the time to put them on paper. I believe that many of the new riders will find them quite as timely as did my well-meaning friend of the sooted plug.

LOW SADDLE POSITION

THOMAS WEST, of 446 High street, Newark, N. J., known as "Shorty" to the motorcyclists of the city, has recently solved a mechanical problem that had him on the anxious seat for a time. Being supplied with legs only 24 inches long West could not reach the pedals on most standard machines, and when it came to steadying himself by placing his feet on the ground he was completely at sea. He bought an Excelsior twin and had all kinds of trouble because he could not make his legs go the required distance. Finally he threw himself on the mercy of W. E. MacDougall, of the Newark firm of Bush & MacDougall. "Mac" made a proposition and "Shorty" jumped at it. MacDougall ripped open the gas tank, took the frame apart and lowered it five inches. Then he sealed the tank again and turned the mount over to its owner. West found that it met his very requirement, and so elated was he over the success of the operation that he had the machine re-enameled. He is a member of the New Jersey M. C. and a regular attendant at club runs—now that he has found a way of reaching the pedals with his feet. The machine attracts much attention.

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DOES PROFESSIONAL RACING PAY?

by ARTHUR G. CHAPPLE

AS might be expected, the first question that arises in the mind of the average spectator at a professional motorcycle race meet is: How much do these fellows get for risking their necks by spinning around board bowls at hurricane speed? In some instances the inquirer may find an answer in the program, but let me state at the outset that in nine cases out of ten that answer is wrong. In order to swell the gate receipts and create a favorable impression upon the patrons of the track, managers will often publish a prize list that looks like a pretty soft proposition for the riders, but when the races are over and the speedsters are assembled in the manager's private office the prizes begin to dwindle. It's a case of seeing the returns through the wrong end of the telescope then.

Some times this rule does not apply, for quite a few Class A riders have in the past managed to get their signatures and the manager's on an ironclad contract calling for a fair share of the promoter's profits, but no such protective contracts are within the reach of the rank and file of board track riders. I will refer to the Class A men later, and confine my arguments for the present to the speedsters in Class B. This class invariably includes the green rider, a chap who has held a minor position somewhere and who falls for the racing game because it seems to promise more money with less labor. Some of these fellows will ride for any amount—from $10 up; as a rule, they accept what the manager is in a mood to give them.

LOW EXPENSES FOR THE MANAGEMENT.

When the rider is to receive $10 per meet the money usually takes the form of a guarantee, incorporated in his contract. Figuring on a basis of three meets a week, the rider will receive $30 for risking his life during an actual period of about six hours of work on the track; this does not include the time and labor incident to keeping his machine in condition. To a fellow who has labored ten hours a day and six days a week, $30 looks like a big salary and easy money, but let him stop and consider that figure in connection with the returns obtained by the track management.

Assuming that we have ten riders at a race meet (this is a very liberal estimate, for I have ridden in many meets where there were only six speed-boys and both management and spectators were well satisfied), it will be found that eight of these are working on a $10 guarantee basis; this guarantee takes care of the rider in case of an accident to his machine or failure to finish for a "place" prize. Now let us say that the program is composed of two races of three heats each, and we will find that the entrant must actually ride three races in order to land one prize. In a 5-mile open event, for example, the rider covers fifteen miles—and the first prize never exceeds $25; the second is usually $15 and the third $10, with a possible $5 added for fourth place. The outlay in prize money under this system for the entire program, as far as the Class B riders are concerned, would be $110.

HOW THE CLASS A RIDER FIGURES.

Assuming that the winners of the first event also capture the four prizes in the second race, this leaves the management to pay out $10 each in guarantees to the unplaced riders. In this case four of the boys would be unplaced, so that the track manager would be called upon to add $40 to his prize money.

Let us say now that the management has advertised a match race in three heats between two Class A riders as a drawing card; in this instance a $35 guarantee is called for with a prize of $100, to be split into $65 and $35 purses for the speedsters. With only two riders in the race the second prize covers the guarantee, and the latter is not regarded as an extra. This makes a grand total of $240 which the track manager is obliged to give in prize money and guarantees, and for this amount he has put on a race meet that brought in about $1,600 (for a four-lap track) and about $2,200 if the saucer is of the three-lap type. You will see that the management has a profit of $1,360 in one case, and $1,960 in the other.

Of course, there are other minor items of expense to be considered by the management, such as the wages of ticket sellers, ushers, etc., but there is also an additional income from

Arthur Chapple and Johnny Albright, Snapped at Brighton Motordrome.

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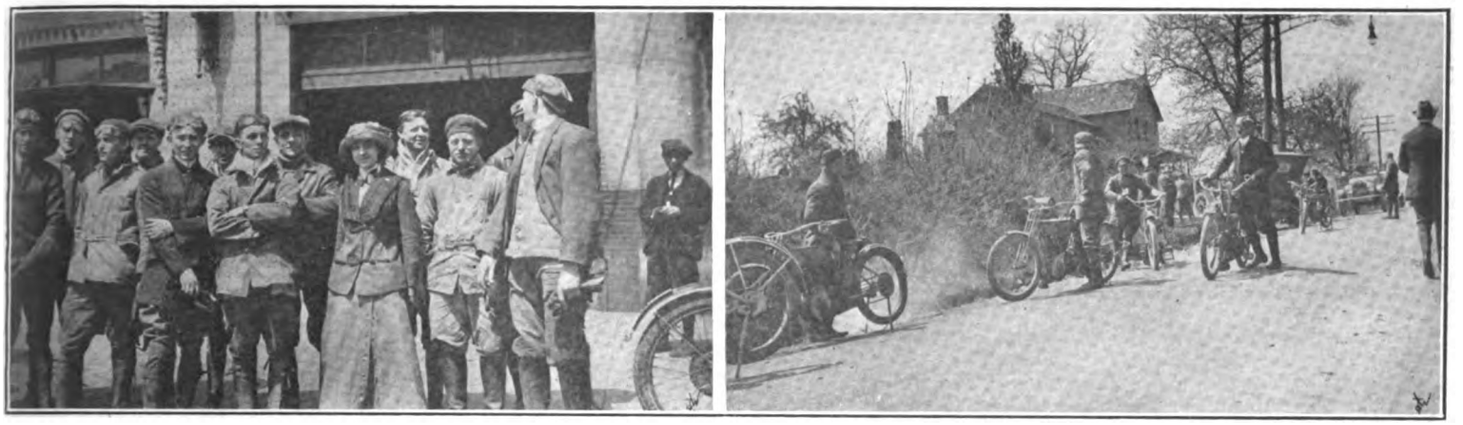

Riders of the National Capital M. C., of Washington, On a Recent Sunday Outing to Baltimore.

various stands and concessions operated in connection with the track, which in actual practice very nearly covers the entire outlay for running a meet.

DEMANDS OF EXPERIENCED RIDERS.

If it rains the promoter loses only his advertising, for no contracts with riders contain a rain clause and the boys who were prepared to ride get nothing unless they actually perform. The same policy is applied to other employees of the track; they receive no pay unless they work. On this basis consider the returns for a season of racing and you will find that the track promoters have had a pretty soft thing of it. With the riders getting next to nothing and the track owners free to handle the boys about as they are inclined to, it is not strange that there has been a scramble for F. A. M. track franchises during the last few months.

Let us consider the Class A riders for a moment, for these are the ones who have a hard fight ahead of them for the coming summer. In this class we find nearly all the older and more experienced speedsters, men who have followed the game since it first attracted public attention. The Class A rider will very seldom sign a contract for less than a $50 guarantee for each race meet, with a possibility of winning $100 for a first place and $50 for second. The prizes usually are $50, $30, $20 and $10 in a Class A race. Under these conditions we have what is regarded as a substantial reward for the risks involved and a successful rider can clean up quite a tidy sum in a good season. This hardly jibes with the policy of the track managers.

The racing in this class is "for blood," as a rule, and fast time is assured. The reputation of the rider as well as the standing of his machine is at stake and he is bound to win if he can. The Class A rider usually straddles a machine that belongs to some manufacturer, so of course he does not worry about upkeep expenses. Because of these conditions the Class A rider has always been in a position to demand a fairly liberal contract from a promoter, and in return the track management is assured of clean racing and red-hot competition.

BLUE OUTLOOK FOR THE CLASS A MEN.

During the 1913 season the Class A rider will find very few of the managers looking for his services. He will be crowded to the wall by the Class B squad, made up of boys who are willing and anxious to risk their necks for one-fifth of what the Class A man demands. It will take some time to determine which class will survive. At present the outlook for the Class B men is bright, but I fear that hippodroming will become a habit and that the sport will suffer in consequence. We may see a reaction before the season is over, and it is to be hoped that this will come before serious harm is done.

Several suggestions have been offered by way of solving the problem that confronts board-track riders, and one plan calls for an organization of professional motorcycle racers, to be affiliated with the F. A. M. When this was talked over at a recent meeting of riders in Chairman Thornley's office the plan was given a hard bump by the Doctor himself, on the ground that it would conflict with his jurisdiction over the racers. Perhaps he was right about this; if so, there is still another suggestion worthy of consideration. Let the F. A. M. amend its competition rules at the Denver convention so that the professional rider will have some definite protection, as far as prize money is concerned, at each sanctioned race meet.

I am quite certain that the F. A. M. Directors would have taken some action in this direction at the last national convention if conditions at the time had warranted it. We have now developed to the point where such action seems to be necessary. Board track racing is a big proposition today and we must provide for it accordingly.

HOW THE RACING GAME HAS DEVELOPED.

It has not been my aim to criticise any particular set of motordrome operators, but merely to state conditions as I have found them in my professional racing career. In the early days of the sport we followed in the wake of Jack Prince, father of the speed game, and he must be given credit for keeping the prize list about where it belonged. He brought the best riders into competition and the patrons of his tracks always saw real racing.

Of the original riders to spin the big bowls few can now be found astride racing motors; accidents have retired thirty per cent. of them and the others have tired of the risks and the uncertain financial returns. Poor old Jake DeRosier was a notable exception to the retirement rule. As long as he was able to ride he insisted upon pitting himself against the best in the land. DeRosier and Hoyt, by the way, were the original professional riders in the F. A. M. Hoyt rode only a few match races against Jake and then retired to take up the automobile trade in Boston, Mass.

A short time later Paul Derkum, known to the boys as "P. D. Q." Derkum, joined the professional ranks. At that time, 1906, Derkum was the premier dirt track rider on the Pacific Coast. A year later Jack Prince built the Los Angeles motordrome and DeRosier and Derkum fought it out for first honors. Jake managed to go through the series without a defeat, and shortly afterward Derkum retired. The following season found two new professionals in the ranks, Eddie Lingenfelder and Fred Whittler, both of whom were defeated in match races by DeRosier. In open competition, however, Whittler had Jake somewhat worried and finally managed to win from him several times at the Salt Lake City track.

PROFESSIONALS ARE PLENTIFUL NOW.

During the period from 1906 to 1910 many of the amateurs developed to such an extent that the F. A. M., through its Competition Chairman, turned them into the professional ranks, and today, as is generally known, that is the only class in which a rider is permitted to compete on a factory machine. Last season brought in some new pro riders and 1913 will add to the list, and it remains for the new arrivals to keep the sport up to the standard set by the old-timers. It is hardly fair to expect experienced board-track riders to compete for the prizes that are accepted by the newcomers among the Class B men, or to sign contracts with managers on a basis that will allow the latter to pass out prize money as they please.

In fairness to the F. A. M. I must say that it has shown a willingness to consider the position of the riders, but up to the present time there has not been a demand for definite action along these lines. I believe that when the present conditions and the outlook for the coming season are called to the attention of the Federation's directorate they will receive reasonable attention. It is primarily with this end in view that I have written of professional racing conditions as I find them.

BOSTON-WORCESTER RUN

MEMBERS of the Bay State M. C. of Boston, Mass., as well as other riders of the city, participated in the first club run on April 19. More than one hundred riders, some of whom were members of the Lynn, Beverly, Revere, Brockton and Boston clubs, were lined up at Park Square for the start. Ernest Johnson, captain of the Bay State club, was in charge and the boys covered the 45-mile course to Worcester in less than two and a half hours. A dinner was served at the Franklin House, Worcester, and the return trip was started at 3:30 p. m.

The Bay State M. C. is a new organization and already has more than 100 members. The club has arranged a very attractive program of summer events.

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SIGHT SEEING in LONDON & PARIS

by F. W. BAUM

MY first desire after reaching London was to procure a new rear tire. I believed this would be easy and it was comparatively so, but it was through sheer luck that I was accommodated, as there was no Diamond tire branch in London, I went to the Goodrich branch and was informed that there were no 28-inch tires in stock. Knowing what this meant to me I was sorely disappointed, but when I impressed my need upon the branch manager, a further search was made which revealed a 28 x 2½-inch studded tire. I had hoped to obtain a 2¾-inch tire, but was obliged to take what was available. It didn't take me long to catch a Clerkenwell Road 'bus for Russell Square. I had previously taken out the rear wheel of my mount, and I quickly fitted on the new tire and replaced the wheel, so that I might get some use out of the machine while in the city. It was while making this repair that I conceived of the idea of placing my Presto tank on the forward part of my luggage carrier instead of hanging it on the rear, where I had been carrying it since starting my tour. I found that this alleviated the vibration and strain on the clamps of the carrier.

I left my luggage at the hotel, thereby eliminating another source of worry. I say worry, because one must be careful what he leaves loose around London, for he is likely to have most anything stolen before he returns. This can be avoided by tipping a boy to watch the machine while you are absent. At one time I had the pleasure of tipping a boy in advance and when I returned he was gone, but he had been considerate enough not to adopt any of my accessories.

Sightseeing in London.

Rainy weather on the day of my arrival in London, made it disagreeable for sight-seeing; but even with this handicap I visited many points of interest. It was only a minute's ride from the hotel to the British Museum. Among the countless objects of interest seen there were the orginal Magna Charta, which, as almost everyone knows, was the great charter obtained by the English barons from King John in 1215 A. D. The originals of many other history-making documents were also inspected. From this point I followed the Charing Cross Road to Trafalgar Square, which seems to be the nucleus of the interesting points of London. The National portrait galleries are here and if one goes on Monday, Tuesday, Wednesday or Saturday he need pay no admission, but on Thursday and Friday the fee is sixpence.

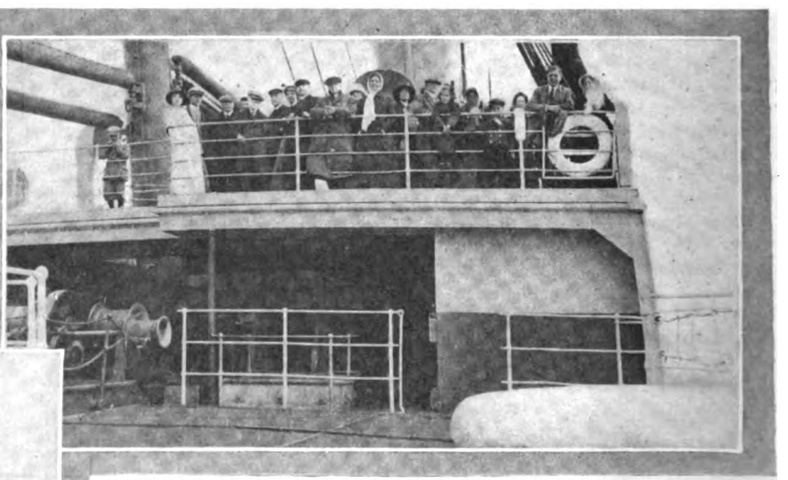
The Mall leads to Buckingham Palace, the present home of the king. Hydé Park is on one side of the Palace and Westminster Abbey and the House of Parliament are on the other. Among other points of interest in and about the great metropolis are Kew Gardens, London Tower, London Bridge, St. Paul's Cathedral and the various parks. I also visited the London branch of the American Motor Company, which is located on Portland street, near the heart of the motorcycle district. Mr. Lyle, the manager, treated me very cordially and allowed me to use his shop for cleaning up my machine. My side trips included, among other interesting places, Epping Forest, Brooklands track and the Latin-British-Exhibition at Shepard's Bush.

Meeting Old Friends.

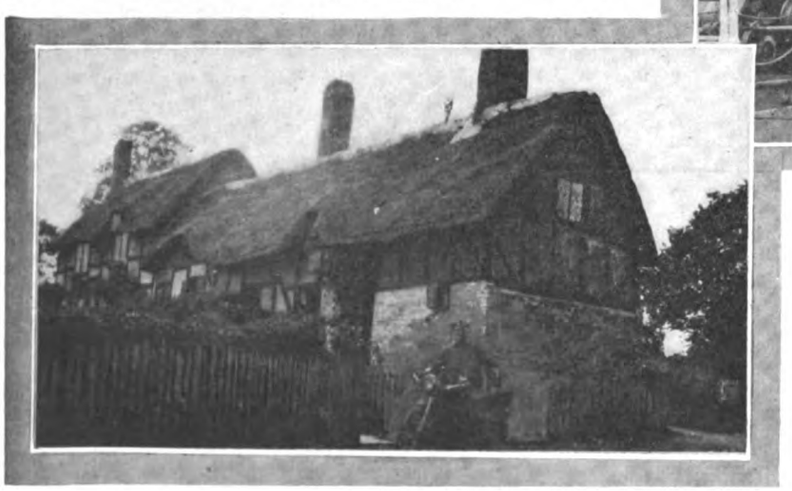
During my sojourn in London, I met a few former acquaintances, Mr. Baxter, of the University of Illinois, Mr. Teigh, a former United States Consul, from my home town, and Mr. and Mrs. Hanger, who went over on the same steamer with me. I had previously joined the A. C. U. of the Royal Automobile Club, and I desired to visit the headquarters at Pall Mall. There I was given all the necessary maps, routes, hotel guides and other data that I would need while on the continent. I left my itinerary and they advised me that they would route me the most logical way and send all details to me at Paris. It may be of interest to the reader to know that his machine registration will cost $2.40; drivers license, $1.20 and International Pass, $2.52, plus about 60 cents for photographs used on the pass.

I was just leaving the R. A. C. offices when I overheard a decidedly Yankee voice asking about motorcycling conditions on the continent. I investigated and met the Rev. Backus, of La Grange, Ind. It developed that he had planned to take practically the same route I had mapped to the south of Italy and return, so we agreed to go together. He had intended to make the trip on a 1910 single Excelsior and had had the machine shipped to him. The next morning we went down to look at his mount and found that it had been disabled in shipping. I knew it would take considerable time to repair it and so decided not to wait for him.

I was unable to get many pictures while in London, due to the unfavorable weather conditions. I left the city about 11 a. m. for Folkestone. It was rather difficult to get out of London, as the route was not clearly marked and there were many turns that I had to make inquiries before I struck the open country. I was then about twelve miles from Piccadilly Circus. About 30 miles out I came to Maidstone, or Midestun, as the English pronounce it. Going down a descent into Ashford, I met a chap on an 8 h. "Bat" with a J. A. P. engine. As he was headed for Folkestone, also we rode together, dis-



Crossing the English Channel to France.



In a Picturesque English District.

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cussing the differences between Yankee and English machines. He had a fast machine and I could see that he was anxious for a race. He gradually let in his throttle, thinking to tease a race out of me. He didn't need to tease me for I was always ready to try conclusions with another machine. I had made a vow back in Brockton that if under fair conditions, any stock machine could give me its dust, I would sell my machine at the first opportunity and buy one of the other make. Well, we had our speed test and by the time I got to Hyde, twelve miles distant, I had lost my friend.

Across the English Channel.

From this point I followed the coast road for five miles, going through Sandgate and then into Folkestone. I think this city has some of the steepest business streets I have ever encountered. I had dinner here as I had plenty of time before the steamer sailed at 4:10 p. m. While waiting I did a foolish thing in the way of money exchange. I had only a little English money left and so cashed a check, and in doing so I called for French gold. This was a very thoughtless thing to do. As I was on English soil, there was a little discount to be figured, and when I bought my ticket with the French money there was another discount; when I paid for the transportation of the machine; there was still another. My fare was about $1.80 and the charge for the machine was $2.50. As soon as I reached the dock I was met by one of the patrols of the Royal Automobile Club, who asked politely if he could be of any assistance. I not only met these uniformed men all through the British Isles but at times on the continent.

The passage across the channel lasts only an hour and a half, but it is about as disagreeable a trip as one would care to make. Arriving at Boulogne, the R. A. C. patrol superintended the landing of my machine, and the purchase of gasoline. I paid sixty cents for five litres of gasoline, which is equivalent to five quarts. The advantage of having an International Pass became evident immediately upon landing, as it facilitated matters in every way. Boulogne is certainly a roughly paved city, but I soon struck Paris road, on National Route Number 1, through Montrevil and as far as Abbeville; from here to Paris, Route Number 3 is used. The first thing to learn is to keep to the right, which is rather awkward after riding at the left in the British Isles. It was rather dark when I left the city, so I put up for the night at a pension, about nine miles out.

A Busy Stay in Paris.

I did not deem it necessary to get a very early start for Paris, as it was only 160 miles distant, and over very fair roads, most of the way. There is a very long and tedious hill at Nouvion, that would tax the climbing powers of many twins. The main road is quite easily followed as it is very straight and wide, and has four rows of trees, two on each side. The government is doing much to beautify its national routes. Abbeville will prove to be of much interest and is worth a stop, although the scenery is not out of the ordinary. I stopped at Beauiras for gasoline and received another five litre can for two francs and 60 centimes. This city is quite large and has a beautiful public square. About two miles out I found a nail in my rear tire. From here to Pontoise-Eparney the road is ordinary, and from there on to Paris much cobblestone paving is encountered.

When I reached the gates of Paris I was asked how much gasoline I had in my tank. I made a guess at one and a half litres and was accordingly taxed twenty centimes. The officials sometimes empty your tank and measure your supply, but I was lucky and did not have to tarry long. Leaving the Porte de Llichy I made my way to the Place de l'Opera, where I was certain that I could get my bearings, as I had made this point the nucleus of my trip about Paris two years before. I located the Hotel St. Petersburg and then started to see the city. I employed a guide to show me about, and although this is somewhat expensive, it is worth the price. The next day while photographing Effel Tower, I met an Englishman and we saw most of Paris together by motorcycle, he being seated on my luggage-carrier with no springs or cushion to absorb the jolts of the pavements. He knew it was a quick way of seeing the city and was satisfied.

Leaving Paris Behind.

It is surprising how few motorcycles are seen in Paris in comparison with others European cities. I rode to the Goodrich tire branch to make arrangements to have an extra tire shipped to me in case I telegraphed from some point on the continent. I was almost out of gasoline and was looking for supply station when I noticed an American type automobile. I rode alongside the car, which was a Stutz and driven by a fellow from Philadelphia; he directed me to a garage where I obtained five litres for 75 cents.

I followed the best route from Paris to Melun. Leaving the Champs-Elysees I went through the Place de la Eoncorde to Boul, St. Germain and past the Zoological gardens to Boul de L'Hospital, Place D'Italie and thence along Left avenue and through D'Irving through the gates of Paris to Melun. always keeping near the Seine. This route will help any prospective traveler over this section, as it will save much time and trouble. I had just enough gasoline left in my tank to carry me out of Paris and once out of the gates I stocked up at a lower price. About twelve miles from my starting point on the road to Melun, I encountered the worst combination of wind and rain I have experienced. It was useless to huddle up under the heavy roadside trees, so I sought shelter in a gardener's shed.

When I rode on again the road was hard, and except for the water splashes the going was very good to Fontainebleu. The road lies very close to the Seine, giving the rider a good view of this famous river. The scenery is commonplace, to Joigny. Many railroad subways pass through this section and the railroad gates encountered are an unusual sight to the American and Britisher. The gates are very numerous and seem to be down about half an hour before the train passes. The tenders, either man, woman or child are reluctant about letting a traveler pass without some delay, but will upon receiving a small tip raise the gates.

Fine Roads to Lyons.

I stopped at Sens for lunch and got a good meal for 21 cents, although the coffee was abominable. It was raining again so I was unable to obtain a picture of an old cathedral located here. I was much impressed by the treatment accorded me by the French people, who seem friendly toward Americans. The road is somewhat hilly through this district which is known as "The Morvan," but it is much preferred to the route through Dijon.

The rider must use caution on the descent from Blanzy to a point near Cluny, as it is very steep and has dangerous and abrupt turns, although the road surface is excellent. Macon is one of the old walled cities, with large stone gates. There is a fine boulevard from here to Villefranche. The road is wide and the double row of trees on each side, give it a tropical aspect. Many gypsies are seen along the road and for a franc they will tell you more about yourself than could possibly happen in a lifetime. The road into Lyons is well kept and like a long beautiful park drive, but Lyons is approached by a tedious hill; then you gradually drop into the city through the Place de Pyramids.

A FULL-FLEDGED BOOSTER

PRESIDENT O. F. McCLAIN, of the Indianapolis M. C., and State F. A. M. Commissioner of Indiana is shown in the accompanying photograph. McClain was recently called upon to take charge of the band of motorcycle volunteers that patrolled Dayton during the flood period. President McClain is a whole-souled F. A. M. booster and by way of proving this he personally invited 700 riders of Indianapolis to attend the lecture which was given by Director J. Leo Sauer in Indianapolis on April 23. He also wrote to all the local F. A. M. Commissioners in Indiana inviting them to attend the lecture meeting. He is now boosting convention plans.

ANNUAL SPRING TOUR

BALTIMORE, MD., April 27.—The Maryland M. C. has just sent out entry blanks for the annual spring tour to be held May 30, over a course of 178 miles from Baltimore to Westminster, Gettysburg, Chambersburg, Hagerstown and Frederick to this city. There will be two classes of riders, professional and amateur. The former entrants will leave city at 6:30 a. m. and return by 5:30 p. m. The amateurs will depart half an hour later and arrive at 6 p. m. Both will be compelled to lay over at Hagerstown an hour for luncheon.

The average speed maintained will be 18 miles an hour and those who exceed this will be heavily penalized. A strict adherence to the laws of Maryland and Pennsylvania will be enforced by the officials. The contestants will be sent away two at a time at one-minute intervals. The start and finish will be at Mt. Royal and North avenues. The course is over fine pikes with some stretches of macadam.

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BUYING a SECOND HAND MOUNT

DONALD · L · JOHNSTON

AS the number of motorcycles in use each year is augmented by the tremendous production of our modern factories, the second-hand problem becomes more and more important for the dealer. But for these very reasons a rider may often obtain a serviceable mount at a fraction of its original price. If a systematic method of examination is followed the prospective purchaser can readily ascertain the amount of use the machine has seen and determine the repairs, if any, which will be needed to put it in good running condition.

The motor, which is "the heart of the motorcycle," will naturally be the unit to be first considered. Exhaust valve tappets after much use will frequently leak oil in some quantity, and if this condition is observed, ascertain whether it is from wear or over lubrication. Valve stems should be examined for leaks. Rocker arms, if present, readily show wear, though it must be borne in mind that some makers purposely fit these parts rather loosely. If the half-time gears have an easily removable cover it is well to inspect the tooth profile for wear, and it may be possible to lift out and reverse a gear, observing its performance in its new relation. This reversal will remedy half of the existing back lash.

In case inspection of these important parts is difficult, about the only way to gain an idea of their condition is by running the motor and listening to see if their action is smooth and reasonably free from noise. The magneto train should be noticed in the same way. Compression leaks can be found by standing on the pedals for some time with the piston on up-stroke. Poor compression should be studied to find if it results from a worn or scored cylinder, imperfectly fitting piston rings, or merely leaky valves or gaskets. Bearings are next in order, and the long bearing on the transmission side will show by its condition both the use and care the motor has had. For if the lubrication has been neglected, wear may be looked for here. This bearing also is one of the hardest-worked components of the motorcycle and is naturally subjected to much use and abuse on all machines.

INSPECTING TRANSMISSION AGENTS.

If the magneto is fitted the cover of the breaker box can be unclamped and the condition of the contact points noted, while on a battery system the timer and its shaft, bushing and contacts are to be examined for wear and side-play. Finally the ignition system can be tested by running the motor, bearing in mind meanwhile that it is as great a virtue to run slowly as it is to turn at abnormal speed. In fact, racing the motor may cover up leaks of current or compression and poor carburetion which will show up at a lower rate of rotation.

The transmission is easier to examine intelligently than the engine, as most of its elements are more readily accessible or entirely exposed. The first step would be to raise the machine on its stand and start the motor. Allow the rear wheel to run freely with clutch engaged, and by light applications of the brake determine the respective conditions of both clutch and brake. This is a good way to ascertain whether the chain has any bent links, if it is stretched or the frame out of alignment. On belt-drive models the belt should ride the pulleys smoothly and show no tendency to climb to one side. A torn belt may have its life prolonged by removing the leather lagging and screws from the small pulley and substituting a fabric pulley covering. Too much should not be applied, however, as it will unravel at the edges if more than one or two thicknesses are put on. Electric tape also makes a serviceable covering, though not so durable. The rear pulley should not be dented or bent much, or trouble is sure to result.

Clutches on either chain or belt-drive machines need cause little apprehension, for they are made very perfectly. But should replacements be necessary they would probably consist simply of a few discs which are inexpensive. It is suggested in this connection that the buyer would be wise, if the motorcycle is not already equipped with a clutch, to find out if one can be fitted, for eventually he will want one. As a rule, clutches can be easily applied to all belt machines, while the prominent chain drive companies have fitted them for quite a number of years past. Countershafts ordinarily stand up well, so the rider need not worry much about this element.

APPEARANCE OF SECONDARY INTEREST.

In looking over the tires do not expect too much. For even to a new machine bad luck may come in the form of punctures, cuts, etc., and a rider is lucky if he buys no more than one casing in a season of considerable road work. Cuts, if they do not enter the fabric, are not serious and can be repaired by first cleaning the fabric and rubber well with gasoline and applying some of the rubber gum preparations made for the purpose.

In a second-hand motorcycle tank, handlebars, mudguards, rims, tool-boxes, etc., are frequently disfigured by dents and lack of paint, but these things are easily remedied. A machine that has had good mechanical care but is somewhat scratched should always be chosen in preference to one of superior finish, but in poorer mechanical condition. It might be well to give here some of the ways in which a mount may be spruced up and relieved of the troubles above mentioned.

A dented tank is the hardest proposition one has to contend with, but if the filler hole is of large size, wonders can sometimes be accomplished. In the case of a copper tank, insert a smooth, round-ended bar, and by working back and forth planish out the dent. Another effectual method is by introducing a bar or other implement into the tank and using it as an anvil on which to carefully hammer out the depressions.

A good way to remove dents from mudguards and rims is by hammering on a suitable-sized "U" pipe connection clamped in a vise. The right degree of curvature will likely be found somewhere on its surface for both rim and guard. Such small repairs, supplemented by the handy air-drying enamel now available, and some ingenuity on the part of the cyclist will usually serve to make the used machine a good investment.

In short, the exercise of a little care and good judgment will solve, for the man who must limit his outlay, the problem of transportation, and unfold to him all the joys of the open road and wealth of the open air. Let me add a final warning, however: Look the machine over carefully before buying it, no matter how low a price the owner may be placing upon it.

MOTORCYCLES are barred from the Florida road shown in the accompanying photograph, but that fact did not deter President Thomas Malone, of the Harlem (N. Y.) M. C. from enjoying a run over it on a recent visit to the Peninsula State. Malone is enthusiastic over the possibilities of the motorcycle in Florida and other southern states, and reports that there is rapidly growing interest in the progress of road improvements.

JARROTT CUP TRIAL

IN THE recent Jarrott Cup Trial of the Motorcycling Club of London, two 7 h. T. T. Indians won gold medals. The contest lasted three days and covered a distance of 567½ miles. Blizzards and semi-cyclones prevailed during the run. The weather conditions are said to have been the worst ever known during a British motorcycle event.

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Pleasant One-Day Circuit Out of Manhattan

Veteran Tourist Maps Attractive 95-Mile Route Over Good Roads of Westchester County and Includes Some Scenic Inducements that will Spice a Sunday or Holiday Outing.

By Arthur C. Bergenstein.

BEING a motorcyclist of eight years' experience and well acquainted with the roads in the vicinity of New York City, I decided a short time ago to pass some of my information along for the benefit of brother riders who may be contemplating short spring trips, and accordingly I am submitting a map and some incidental data. The route I refer to in this article is intended for a one-day run, and in my opinion it approaches the ideal. The rider who follows it will cover about 95 miles through Westchester County, for the most part over good State roads.

The route leads up Broadway to Yonkers and to Getty square. The rider crosses the square and proceeds straight ahead one block, then turns to the right into North Broadway and ascends a short, steep hill. The route then leads straight on through Hastings to Dobbs Ferry. At the fork, which is marked by a fountain, take the right turn and follow this road about a mile to Ardsley, crossing the railroad tracks. Immediately beyond turn left into the Sawmill river road, which will be followed for about two miles. The rider will note a large sign relative to a cemetery, and about an eighth of a mile beyond a road will be found leading to the right, up a hill. This road is followed to the end, where it strikes a road on which there is a trolley line.

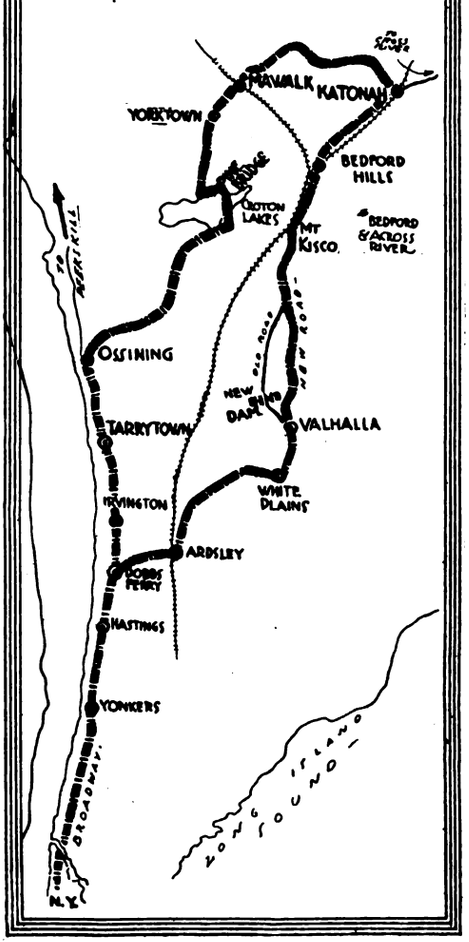
A VIEW OF THE NEW DAM.

The tourist will turn right and follow the trolley tracks into White Plains, over a railroad crossing and straight through the town to the end of the street, where a left turn will be made. At the fork, which will be found about 1½ miles beyond, the rider will turn right and reach Valhalla, when the right fork of the road will be followed again. The left fork is the old road, which will soon be flooded by the new reservoir just beyond. The new road extends along the hillside, from which can be seen the huge new dam under construction. Two fine stone bridges are crossed, and immediately after passing over the second bridge the tourist will turn right and continue on a winding but fine-surfaced road to Mt. Kisco. Proceed straight through the village and up to the railroad—*but do not cross it.* Instead, take the last turn to the right just before arriving at the tracks.

This road leads direct to Bedford Hills. Caution is necessary on approaching the latter village, as the road ends suddenly. At the end of the road, turn left and go down a short, steep hill, over railroad tracks and past a garage on the left. Then the route lies straight ahead for Katonah. Follow the straight road through Katonah and pass the lake on the left. A short distance beyond the traveler will skirt the foot of the big Croton dam, and he will then proceed to the end of the road, where it joins the route from Mahopac. The course is still straight ahead, over the tracks and through Amawalk to Yorktown Heights. Here a left turn is made and then the next right turn is taken.

About a quarter of a mile beyond the tourist will make a right turn, and another quarter of a mile will bring a left turn; the rider will then find himself on the main road. The road soon plunges into thick woods and is down grade, so that this part of the ride is especially pleasant. At the end of the road turn sharply to the left on the shore of Croton Lake and follow the shore road. This affords fine going. It will carry the rider over a large bridge (Pines bridge), and just beyond a turn is made along the shore to the foot of the lake, where another bridge will be seen to the right.

A turn is made off the road and over the bridge, and then comes another turn immediately to the right. This road, about 8 miles long, is winding but in perfect condition. It leads direct to Ossining and joins the Albany Post road there. The rider who follows this road down through Tarrytown and Irvington will find himself in Dobbs Ferry, at the point from which he turned off at the beginning of his trip. The run is then made back to New York City. It may be of interest to state that a good meal can be obtained at the Newcastle Inn, in Mt. Kisco, and that this hostelry welcomes motorcyclists. The little hotel over the corner store (opposite the railroad station) at Katonah will also be found to give satisfactory service. I am fully convinced that any rider of the metropolitan district who makes this trip will be as well pleased with it as I am.



PATERSON HILL-CLIMB

MUCH interest was displayed in connection with a hill-climb held at Paterson, N. J., on Sunday, April 20, hundreds of motorcyclists and automobilists being on hand when the program was opened. C. Brahs, mounting a Reading-Standard 7, hung up the best time of the day when he scaled the hill in 26⅘ seconds. This time was made from a standing start and was regarded as exceptionally good, in view of the fact that the Schumann-Heink hill on which the tests were held is 2,500 feet long and a hard climb.

The scores of the other contestants were as follows:

S. B. Thorpe, Reading-Standard 7, 29⅕; P. Brahs, Reading-Standard 7, 33; M. Ferraro, Flying Merkel 7, 32; E. Young, Indian 7, didn't finish; John Steel, Indian 7, 30; B. Rochelle, Reading-Standard 7, 33; F. Burgess, Thor 7, 31⅗; T. N. Lee, Thor 7, 28⅕; H. Scott, Thor 7, 31⅗; Norman E. Heil, Reading-Standard 7, 32⅗; H. Fishelsteen, Reading-Standard 7, 30⅖; Egan Hogland, Reading-Standard 7, 32⅖; Walter Babb, Pope 7, 32⅖; P. Klapmust, Excelsior 7, 28⅕; P. Drummond, Indian 7, 28⅗; E. Eckel, Indian 7, 28⅗; Frank Hart, Indian 7, 29; Lester Lippincot, Indian 7, 27⅘; A. Dresser, Indian 7, 29; Walter Babb, Pope 3½, 41; Tintle, Indian 2¾, 50⅕.

ACCIDENT AT OPENING MEET

L. I. SILVER, one of six riders who were closely bunched at the start of the opening race at the Tuileries Motordrome, in Denver, recently, lost control of his machine and shot to the top of the track. He rode the uprights for a short distance and his machine then came down on the track again, but only for a second. Again it shot up the incline and Silver's head came in contact with one of the supports of the wire netting. He was killed instantly. As the other riders were a trifle in the lead Silver's machine came down without causing further trouble. Spectators, riders and judges were of the opinion that Silver had just taken an ordinary spill and was not seriously hurt and the race progressed, with a warm fight between Stokes, Fleckstein and Bowen for first place. In the final lap Stokes worked in some clever jockeying and crossed the tape slightly in the lead. On learning the fate of Silver the management immediately closed the program.

THREE TRANS-CONTINENTALISTS

A MOTORCYCLE jaunt from Tampa, Fla., to the Pacific Coast, by way of New York and Chicago is being made by three riders of Tampa. C. W. DeLong and L. W. Whitehurst, two of the party, are students of the University of Florida, and J. C. Kinney, the third rider is a member of the Plant City (Fla.) militia. The boys left Tampa on April 7.

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Over the Border to Goderich, Ont.

by Robert Bruce

ONE of the most interesting places visited in the course of several years' traveling over the roads of the United States and Canada is the picturesque small city of Goderich, Huron County, Ontario, which is located, as the accompanying map shows, on the eastern side of Lake Huron, somewhat less than 60 airline miles from where it flows into the St. Clair River. Though within a relatively short distance from the main-traveled roads between the east and the west via Hamilton, London and Detroit (or Port Huron), it is far enough north of them to escape the notice of most tourists.

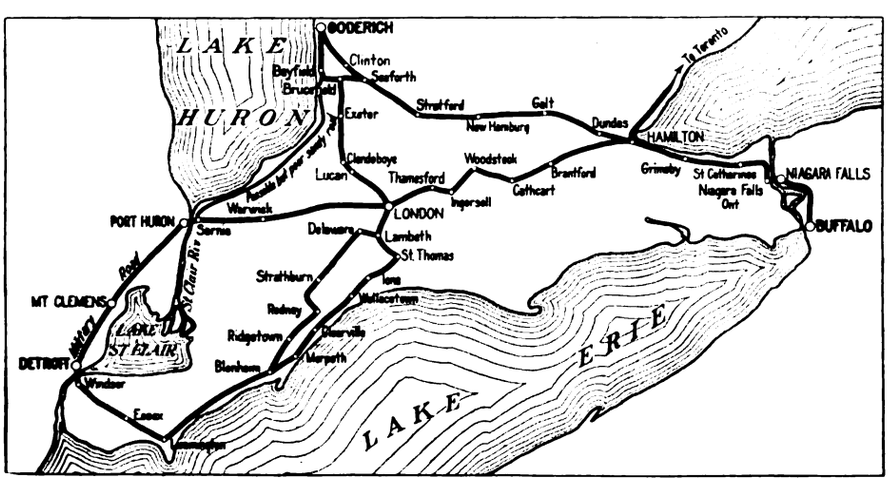
As a matter of fact, Goderich is not as much out of the way as might at first appear, the northward detour being partly offset, in any comparison between the two, by the southward bend of the regular route between London and Windsor. The distance from Hamilton to Detroit via Woodstock, London, Delaware, Blenheim and Essex is about 223 miles, or via Galt, Stratford, Goderich, London, Sarnia, Port Huron and Mt. Clemens, approximately 301 miles, a difference of only about 78 miles in favor of the lower line. But the upper route is much the more interesting to the leisurely traveler, having good smooth, well-drained and better-kept gravel roads; despite the greater distance, it probably has fewer turns—certainly not as many on one stretch on the lower route between Delaware and Blenheim.

The two principal gateways to the Goderich district are Hamilton from the east, or London from the south or west; it is possible to work one's way closer along the lake between Sarnia and Bayfield-on-the-Lake, but the roads that way are poor and better time can invariably be made around by London. Or, leaving Goderich out altogether, the Detroit-Mt. Clemens-Sarnia-London route is a pleasant alternative to the one via Windsor, Essex, Blenheim and Delaware; and in fact the former would be a few miles shorter than the latter.

ROUTE IS EASILY FOLLOWED.

Being in Detroit, traveling east after having twice covered the conventional trunk line through lower Ontario, I decided to start up from Detroit over the Old Military Road through Mt. Clemens to Port Huron, Mich., where the St. Clair river is crossed by steam ferry to Sarnia, Ont. Here it was necessary to take out an Ontario license and make a cash deposit, to be refunded on re-entering the United States at Niagara Falls.

The road direct east from Sarnia through Warwick to London, a distance of 64 miles, was a pleasant surprise—straighter and better than the lower line from Detroit through Essex and Blenheim. It runs through a fine and almost level but thinly settled farming country; though no running directions were available at that time, I came upon only one fork where the stranger might be likely to go astray. This is fortunate, as very few sign-boards have yet been put up in that locality, and the residents are not expert in giving directions.



Small-Scale Map of Routes Between Buffalo and Detroit, with Principal Options, Especially the Upper One via Goderich, which Affords Many Features of Interest.

There is undoubtedly a short-cut from some point east of Warwick to Clandeboye, saving materially on the mileage through London; but most tourists go into that city for the ample hotel accommodations there, which are very scarce on the entire route from Detroit to Goderich. Immediately after starting north from London, the tourist begins to feel like being in the real northern country; and surprise grows as the excellent gravel road continues up through Lucan, Clandeboye and Exeter to Brucefield.

At Brucefield a left turn is made onto the route west from Seaforth, and at the next town, Bayfield, is had one's first view of Lake Huron; then it is a direct, unmistakable run to the end of the "Bayfield Road" at the Britannia Road in Goderich. A left turn on the latter road is followed by a right turn on Victoria street and a diagonal left turn on Kingston street to the Square, the first view of which is approximately that shown on the accompanying photograph.

The tourist quickly notices that this little resort city is built upon a unique plan, additional details of which will be seen by reference to the town map. At the center is the County Court House, a handsome stone structure, surrounded by a beautiful park, in which flowers of every hue, shrubs of many kinds and handsome shade trees abound. Surrounding the park, or octagon, on all sides are the hotels and principal places of business, said to have a frontage of more than a third of a mile.

Starting from the common center are eight streets, four straight ones named from the points of the compass—East, West, North and South—and the other four diagonal ones named after important cities in the Province of Ontario—Montreal, Kingston, Hamilton and Colborne. The diagonal streets cross the regular streets and avenues at many angles, in a fashion to suggest a spider's web.

Other names of streets, not all shown on the map, suggest names of important events in British or Canadian history—Britannia Road and Victoria street (used in coming into Goderich from the south or west), Trafalgar street, Caledonia Terrace, Gloucester Terrace, St. Georges Court, Nelson street, Arthur street, Montcalm, Wolfe, Bruce and Brock streets, Palmerston, McDonald, Elizabeth, William, Quebec, Toronto, Stanley, St. David, St. Patrick and other streets of the same general nature, too many to repeat here. Of course, no attempt is made to name these in any logical order. The streets and ave-

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nues of Goderich are much wider than the ordinary, and their sides are lined with choice shade trees, of which the maple and horse chestnut are perhaps the most plentiful.

A REGION OF FINE VIEWS.

Long years ago, before the paddles of the first voyagers broke the primeval stillness of the places, or perhaps drew a few curious Indians to the edge of the lake, near what is now the mouth of the Maitland River, the site of the town was a strategic and attractive one. In fact, it requires no great stretch of imagination to see in the mind's eye the daring French explorers stopping at what is now Goderich, on their way from the early settlements along the St. Lawrence to the Mississippi through the Great Lakes.

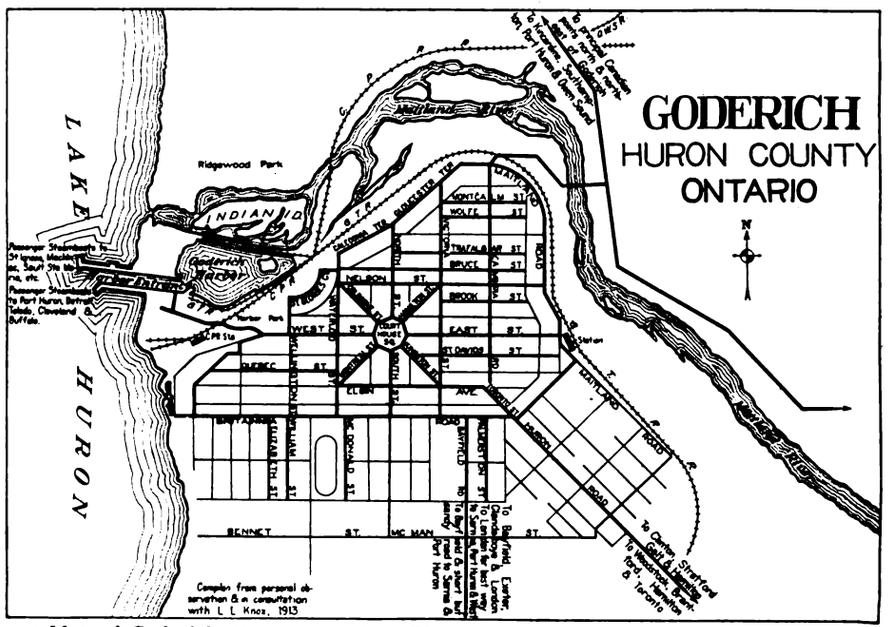
In summer the port is as busy as it is interesting, for in addition to considerable shipping there are frequent calls from passenger steamers going up the lakes to St. Ignace, Mackinaw, Sault Ste. Marie, Duluth, Milwaukee, Chicago, etc., or down the Lakes to Port Huron, Detroit, Toledo, Cleveland and Buffalo.

What is known as the Harbor Park is several acres in extent, planted with shade and fruit trees, commanding a fine view of the harbor and of the great lake stretching beyond. At the foot of the hill, within easy distance of the harbor docks, are two mineral springs gushing from the earth at a great depth, and flowing freely winter and summer, defying alike the heat and the cold.

Goderich stands about 120 feet above the level of Lake Huron, its two sides falling abruptly toward the lake and the Maitland River. Probably most visitors will share the writer's regret if they are obliged to confine their trips to one way in and another way out, for the local motorcyclists informed me that most of the other roads around the city are good smooth gravel. It is also stated that they are well drained and have no mud, which is readily believed, as high-built roads with good drainage are characteristic of that part of Ontario.

CAREFUL DRIVING IS ESSENTIAL.

It is the easiest of all places to get into, as all roads lead to the octagon-shaped park, but going out the way you have been planning is an entirely different matter, as you must then pick out the particular one needed from the maze of streets leading in the one general direction. Though priding myself somewhat on being able to search out and follow directions, I started out wrong toward Galt and Hamilton, making it necessary to go back to the business center and ask a new set of questions.



Street Map of Goderich, One of the Most Picturesque and Interesting Cities in the Province of Ontario. This Diagram Will Save the Tourist Delay and Confusion.

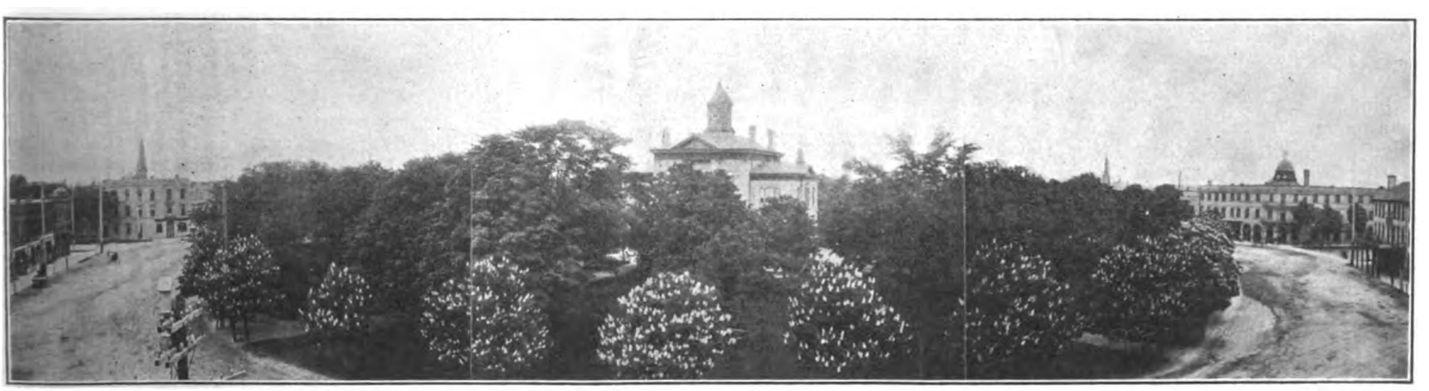
The route referred to leaves the "Square" by Kingston street, jogging left on Elgin avenue and then right through Toronto street into the Huron Road, now direct through Clinton to Seaforth. This is most of the way a good limestone and gravel road; it is hilly in some parts but not a really steep grade on the whole line—just enough undulations to give interest and variety to the trip, which can be made in good time throughout. While the road is not quite as good from Seaforth through Stratford and New Hamburg to Galt as from Clandeboye to Goderich, it will average better than from London to Windsor, on the usual Niagara Falls-Detroit through line.

In northern Canada the horses must still be passed with care and at slow speed, not only because they are not yet thoroughly broken to power-driven vehicles, but especially because the high roads, frequently with long deep ditches on either side, make any mishap more than ordinarily dangerous. Many people in that district still fear to pass an automobile or motorcycle in the usual way, and if given half a chance they will turn the horse and wagon around so that you pass them from behind rather than head on. On the way from Seaforth to Stratford, we met two young ladies coming from town; they, too, foolishly attempted to turn around. They succeeded in overturning the wagon in which they were riding, with some incidental damage. I lifted the wagon back into the road and found that they were more scared than the horse.

After a fair trip from Goderich to Galt, the tourist runs over a really excellent stretch from that small city all the way into Hamilton—so good in fact that a true description of its condition would seem to include superlatives.

At Hamilton, connection is made, as the map shows, with the lower route from Detroit through London to either Niagara Falls and Buffalo, or Toronto and Kingston, both already fairly well known to tourists. Motor travel across the Ontario peninsula is rapidly increasing, as it should, for the distance between the important cities of Buffalo and Detroit is less this way than via Erie, Cleveland and Toledo; in fact, the Canadian route, including the Goderich detour, scarcely exceeds the distance on the American side of Lake Erie. The latter also necessitates either going over the poor direct route from Toledo to Detroit, or a considerable detour to the left to reach Michigan's chief city through Dundee and Ypsilanti.

Niagara Falls is also directly on the route from Buffalo to Detroit across Canada, whereas it is a detour of 23 miles each way on the route to the same destination along the American side. The customs hold one up for a few minutes only, for examination of machine and to arrange the report; but this delay is balanced by the other features of the trip.



The Octagon-Shaped Public Square at the Center of Goderich, Ontario, One of the City's Beauty Spots.

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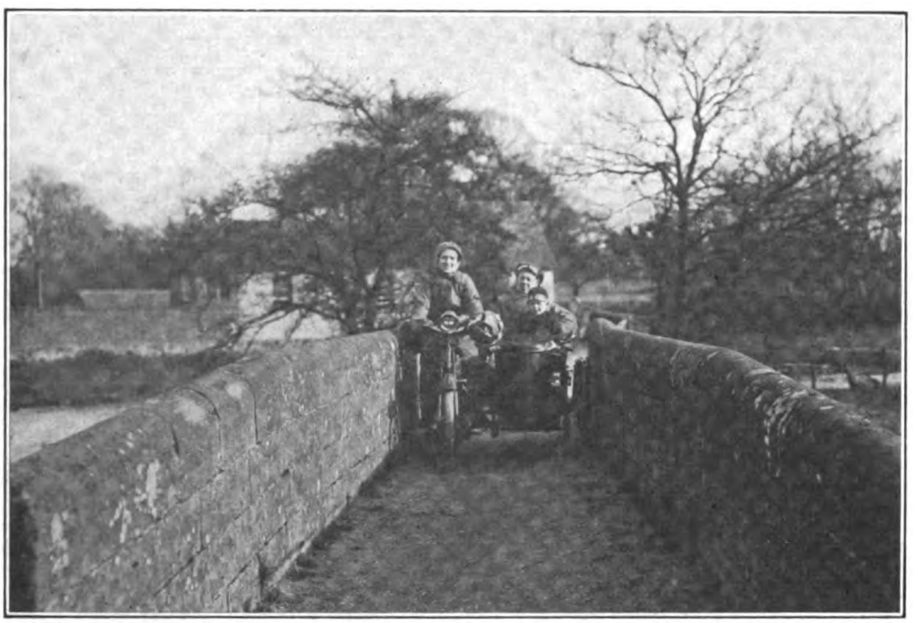
The LADY MOTORCYCLIST

By NORA HOUGH

WITH the promise of fine weather from now on, our thoughts naturally turn to outdoor sports, and I take it for granted that lady motorcyclists in America are just about getting their riding togs in shape for a season of healthful road work. While I have been informed that feminine motorcycle enthusiasts are comparatively few in your country as yet, I am inclined to believe that their number is underestimated; that there are many more ladies piloting their own machines throughout the States than your statisticians know anything about. This must be the case, for in the American motorcycle journals group pictures including ladies are quite common.



Mrs. Mary Riley, Driving Royal Enfield with Sidecar on a Picturesque English Road.

I must give these ladies credit for considerable riding ability, by the way, for it is not the simplest task in the world for a feminine rider to handle a motorcycle primarily designed for the use of men. The lady rider should have an open-frame machine, and when she is not thus equipped it is impossible for her to realize all the satisfaction and enjoyment that the pastime can afford. I hope soon to see an open-frame model on your market, and I believe that the manufacturer who produces it will be amply repaid.

HINTS ABOUT SELECTING A MOUNT.

It has occurred to me that a few hints about the purchase of a machine, and about the initial ride in particular, will be interesting for ladies who are about to enter the ranks, and as I may safely say that I have passed the novice stage my observations may also have some instructive value. Of course, most prospective buyers have some particular machine that they fancy; probably a friend has a mount that he or she describes in glowing colors. Still, unless the latter is a motorcycle of good repute it is well to go slowly. As I understand it, you are fortunate in having about twenty makes, any one of which is a safe buying proposition. On this side we have more manufacturers and therefore greater discrimination is called for.

The new rider, especially a lady, should make it a point to purchase from a reliable dealer. She is bound to have little mechanical problems to solve from time to time, and if her dealer is of the right sort he can save her time, money and worry. Then there is the question of horsepower to be considered. I have ridden both heavyweights and lightweights, and I am firmly convinced that for real pleasure a motorcycle of from 2 to 2¼ horsepower is about right. Above the latter power I must admit that a lady finds the accompanying weight rather troublesome, unless, of course, a sidecar is attached; then one needs the extra power.

STUDY OF THE CONTROL SYSTEM.

My first machine was a 2½ h. open-frame Matchless with two-speed gear. This mount I did not attempt to take out on the road until I thoroughly understood the different levers. This acquaintance with the control system may be obtained by placing the machine on the stand and working the levers (or grips—as I believe would be the case with most machines in your country). In this way the lady novice can memorize the whole system without endangering herself, and with full confidence. Then when the machine is taken onto the road it is only necessary to accustom oneself to the unusual weight and the problem is solved.

Miss May Walker.

Once the motor is mastered in the way I have suggested I would advise the owner to take the machine to the nearest incline—minus belt or driving chain, as the case may be—and then coast down the grade. The latter should be just steep enough to make the machine run of its own volition. This will acquaint the rider with the steering and will give her needed confidence. Then let the driving agent be replaced so that the machine may be driven up the hill with the motor firing. It is safer to ride up a slight hill at the start than down a hill, or even on the level, and one trial of this kind will usually demonstrate the simplicity of the entire control system. In my opinion motorcycling is much simpler than, say, taking a high dive for the first time, or even donning a pair of skates.

HOW ENTHUSIASM GROWS.

I have been with quite a number of ladies on their first ride, and not one of them has blundered or lost control of her machine. What is even more encouraging to the tutor, each one of them became at once a convert and a prospective buyer of a machine. Just let the average girl have a fair trial of a suitable motorcycle and she is bound to want one for her permanent use. First she must get rid of the idea that the motorcycle is essentially a man's mount, for it is not. At least, it is no more so than the automobile is strictly a man's vehicle. Many ladies drive their own motor cars and think nothing of it; in my opinion piloting a motorcycle is much more interesting and every bit as safe and ladylike.

In the photograph of the sidecar outfit coming over the bridge which accompanies this article, appears Mrs. Mary Riley, of Birmingham, England. Some time ago Mr. Riley purchased a 6 h. Royal Enfield motorcycle and

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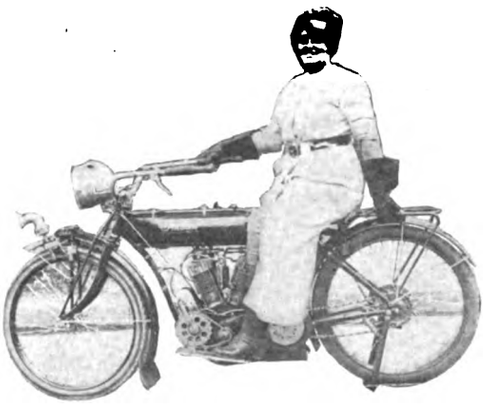
sidecar with the intention of occupying the saddle himself, but Mrs. Riley, after a few runs in the sidecar, decided that she would like to handle the outfit. Accordingly the plucky lady learned to operate the powerful combination, and every week-end now finds the Riley party camping out in some beautiful country spot. Their turn-out is an interesting sight when equipped for touring, as it carries a camping kit, camera and huge lunch baskets in addition to the two passengers. Mrs. Riley not only uses her motorcycle for pleasure trips, but has recently finished among the winners in several severe competitions.

The picture that appears in silhouette on the opposite page is of Miss May Walker, of Redbourne, near London. Miss Walker is a keen photographer and finds her handy Hobart indispensable in connection with her hobby. She is especially fond of finding pretty country spots and photographing them, and with the aid of her motorcycle she is able to cover a wide area. Miss Walker states that motorcycling and photography make an ideal combination.



MISS FRANCES LOEB, of New York City, who recently became a member of the Harlem M. C. Miss Loeb has put many centuries behind her Indian 7 and is not averse to participation in an occasional endurance trial. She attended the meeting in New York City on April 28, at which plans were developed for organizing the state F. A. M. body.

State Convention Plans in Oregon

Portland Will Be Scene of Big Assembly in June at Which 1000 Motorcyclists from Neighboring States Are Expected to Appear

ALTHOUGH there are only 400 F. A. M. members in Oregon, a State organization has been formed and elaborate plans laid for the coming summer. A number of the best riders in this section of the country will be sent out on a circuit throughout the entire Northwest. These men will be furnished with the fastest racing machines that can be bought, and they will ride, in all, 73 days at meets in Oregon, Washington, Idaho and British Columbia. These events will take place between April 15 and November 1.

Probably the most important feature of the program is the convention of the State Federation, which will be held the first two days of the Rose Festival which take place in Portland June 9 and 10. Tuesday, June 10, will be known as motorcycle day. Monday morning members of the Federation will convene for their first session and in the afternoon races will be held at the County Club track. The second session of the convention will be held Monday night. Tuesday morning a huge motorcycle parade will be held in connection with the Rose Festival, in which 1,000 motorcycles are expected to participate.

In the afternoon the final races will be held and in the evening all visiting motorcyclists will be the guests of the local riders at a banquet. There are 800 riders in Portland and 1,300 other riders scattered throughout the State, and routes and tours are being so arranged that nearly every motorcyclist in the State is expected to be on hand. The State Federation touring committee will have roads mapped and will furnish blue prints of the routes. It will also arrange for all stops and supplies while en route and will designate the best hotels at which to stay and will arrange for special rates.

The longest tour will be from Baker, Ore., and riders from towns along the route, including La Grande, Pendleton, Walla Walla, North Yakima and The Dalles, will join the original party. Another tour will start at Medford with riders from Klamath and Medford. This squad will pick up riders at Roseburg, Cottage Grove, Ashland and Grants Pass, and further on at Willamette Valley, of which Salem, Albany, Eugene, Corvallis and Woodburn are the largest centers. This party is expected to be more than 400 strong when it reaches Portland. A third tour is being arranged from Seattle and Tacoma, Wash.

Representatives of the State Federation have been in conference with General Manager George L. Hutchin, of the Rose Festival, and all arrangements as to dates have been completed. Trophies will be offered for the parade and designers are now at work on floats for this occasion. It is also planned to have the fastest racers on hand who will compete for the $600 in prize money to be offered in Portland. Later in the season Portland riders will tour to Seattle when that city has its Golden Potlach.

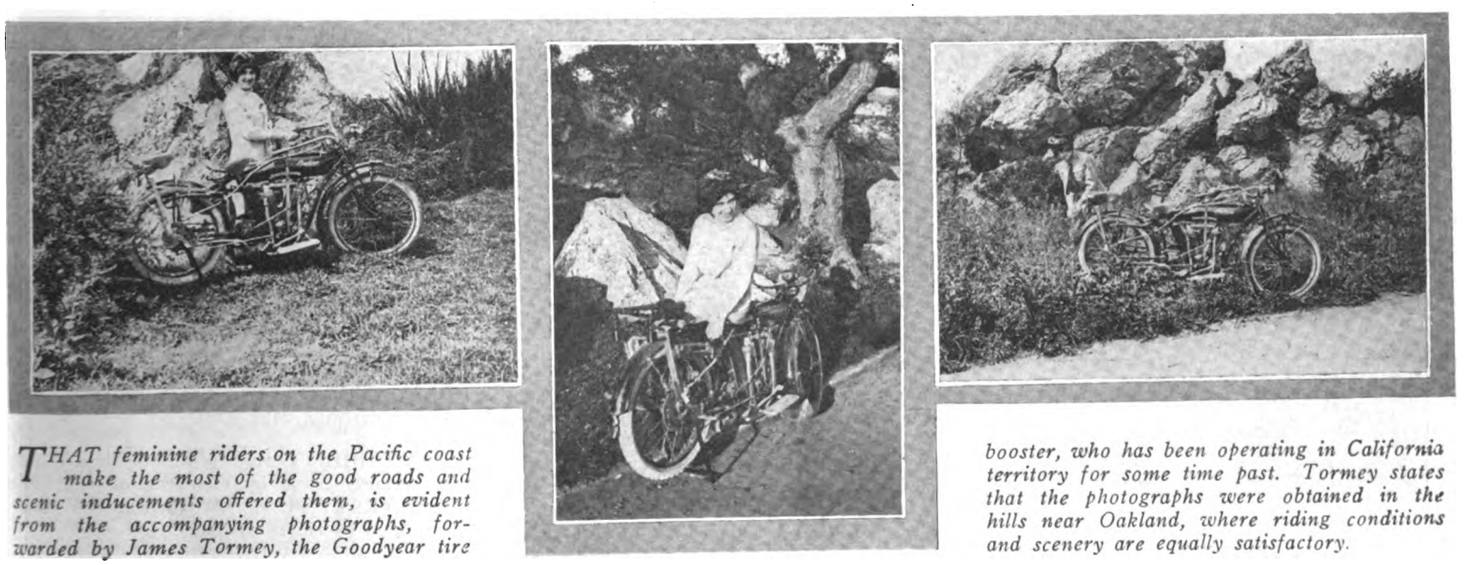
PLAN BI-WEEKLY RUNS

AT a recent meeting of the La Porte (Ind.) M. C., the touring committee announced the destinations and dates for bi-weekly runs to be held by the club during the summer. The first run, which was held April 20, was to Gary, and the officers were well pleased with the turn-out of riders. The schedule as presented at the meeting is as follows: May 4, to Crown Point; May 18, to Culver; June 1, to Chicago; June 15, to Bass Lake; June 29, to Logansport; July 13, to Elkhart; July 27, to St. Joseph; August 10, to Rochester; August 24, to Chicago; September 7, to Three Oaks. The objective point of the run for September 21 will be announced at a later date.

A number of prizes will be awarded to the riders finishing the season with the most points. Before the first run each rider was credited with 100 points.

MISS PATTERSON A CAPTAIN

MISS INEZ PATTERSON, daughter of President Patterson of the F. A. M., has been officially appointed a captain of the Short Grass Touring Club to have charge of a division of girl riders. Miss Patterson expects that not less than fifteen girls will participate in the coming tour of the Short Grass Club. She is anxious to hear from all feminine riders in the United States, whether they expect to take part in the run or not.



THAT feminine riders on the Pacific coast make the most of the good roads and scenic inducements offered them, is evident from the accompanying photographs, forwarded by James Tormey, the Goodyear tire booster, who has been operating in California territory for some time past. Tormey states that the photographs were obtained in the hills near Oakland, where riding conditions and scenery are equally satisfactory.

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No Sidecar License Needed in New York State

Decision from Office of Secretary of State That Passenger Attachments Are Exempt from Registration Clears Situation That Has Been Badly Muddled of Late—Vans Must Be Licensed

SIDECAR users of New York State who have been on the anxious seat for a month past as the result of efforts in certain districts to bring the motorcycle passenger attachment within the scope of the Motor Vehicle Law, will welcome a declaration made from the office of the Secretary of State a few days ago to the effect that the addition of the third wheel to a motorcycle outfit does not constitute a legal departure from motorcycledom. In other words, the status of a motorcycle is not changed by the attaching of a sidecar for passenger-carrying purposes, and no registration fee is required. A commercial van, or any attachment intended for business purposes, is exempted from this interpretation and must be registered.

As was stated in the last issue, several New York City sidecarrists were haled to police headquarters and compelled to pay a five-dollar registration fee for their motorcycle attachments, while riders in other districts of the city were not molested. This state of affairs led to numerous complaints and general uneasiness, and the situation was brought to a head when A. de Graaf, of 225 Columbus avenue, was arrested for operating a sidecar without a license. Upon appealing to the office of the Secretary of State he was informed that there was no registration clause covering sidecars. He again attempted to use his motorcycle with the passenger attachment and was arrested a second time

He then called the matter to the attention of Chairman J. P. Thornley, of the F. A. M. Competition Committee, and in the absence from the city of Chairman J. Leo Sauer, of the Federation's Committee on Legal Action, the doctor opened negotiations with the New York office of the Secretary of State. The New York officials communicated with Albany by long distance telephone and a short time later made known the decision that pleasure attachments for the motorcycle require no registration. This declaration was embodied in a letter to police headquarters in New York City by the State officials, and a letter confirming the decision was later received by Chairman Thornley. Doctor Thornley's letter of protest follows:

"There has been considerable annoyance to motorcyclists who are driving sidecars for pleasure, who have been arrested and taken to the station house, there to be told that they must get out a license or be arrested again. When applying at the office of the Assistant Secretary on Seventy-third street, New York, they are informed verbally that no license is required, except on sidecars operated for commercial purposes. Taking this verbal statement at its face value they go out without a license only to be arrested again.

"I respectfully submit that these men are attempting in every way to obey the law, and are entitled to a written statement from your office, or the office of the Assistant Secretary of State, that license has been refused because the law does not require it, or that their request for a license be granted.

"Motorcyclists as a general class are anxious to obey the law, and keep within its limits. There is nothing to be gained by persecution, or by keeping them in uncertainty as to exactly what the law is."

The brief but satisfying reply from the office of the Secretary of State is printed herewith:

State of New York
Office of the
SECRETARY OF STATE
Broadway and 74th St.
New York City

April 28, 1913.

Dr. J. P. Thornley,
Hotel Ansonia,
73rd street and Broadway,
New York City.

Dear Sir:—In reply to your letter in regard to three- (3) wheeled motorcycles, carrying passengers, would advise that this type of motorcycle does not have to be registered in this State.

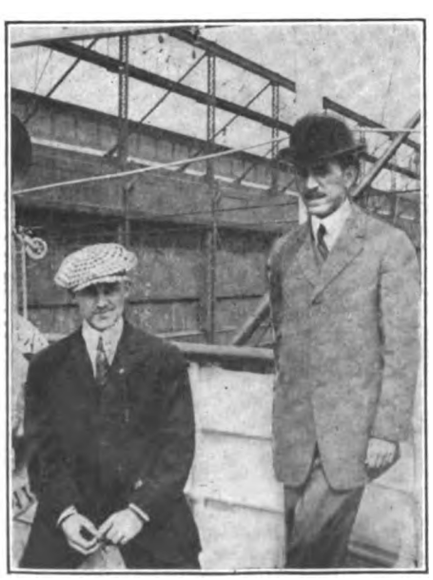
This is to confirm my telephone message of this date.

Respectfully yours,
(Signed) JOHN E. NUGENT,
Deputy Chief Auto. Bureau.

ELMIRA, N. Y.—The Elmira Arms Company has contracted for the agency for Goodyear tires.

New Orleans Riders Sail for Long Tour

V. L. NICHOLSON and John de Phillippi, both of New Orleans, sailed on the steamer Niagara on Saturday, April 24, for a motorcycle tour of European countries and a side journey to Tunis, Algeria. They will ride Indian 7 two-speed machines, equipped with Goodyear 3-inch tires, Stewart speedometers, Prest-O-Lite tanks and specially constructed luggage bags to be fastened on either side of the luggage carriers. Suitcases are also strapped on the carriers proper. The tourists have made arrangements to ride through the chateau district of France and to Italy, from which country they will make the trip to Tunis. On their return they will tour Switzerland, Germany and several other continental countries before going to England.



Nicholson and de Phillippi.

Before leaving New York Mr. Nicholson made arrangements to write a number of special articles for MOTORCYCLE ILLUSTRATED, dealing with the more interesting touring districts found on the tour. One will be devoted to the trip to Tunis, where the motorcycle is still something of a curiosity. Each article will be profusely illustrated with photographs, and it is likely that the first one, covering the chateau district of France, will be ready for publication in an early issue.

ILLINOIS STATE F. A. M.

THE ILLINOIS STATE F. A. M. has been organized with the following officers: G. Whitney, Chicago, Chairman of the Touring Committee; B. Blankenheim, Chicago, Chairman of Roads and Highways Committee; G. Anderson, Chicago, Chairman of Legal Action Committee; C. B. Leitner, Chicago, Chairman of Membership Committee; G. A. Wadsworth, 3600 West North avenue, Chicago, State Secretary. The State Commissioner is N. L. Donovan, Chicago, who has made a promise that the Illinois membership will be increased by at least 500 members during the coming season.

NEW YORKERS MEET.

AT a meeting of motorcyclists of the Metropolitan District held in the World Building, New York City, Monday evening, April 28, plans were discussed for organizing a state F. A. M. body, and the original dates set for a convention, May 29-31, were set aside with a view of affording clubs and riders in other sections of the state an opportunity to participate in the organization plans. The meeting was called to order by State Commissioner J. A. Hall, and one of the principal speakers was Robert S. Morton, former State Commissioner for New York.

State Commissioner Hall read a letter from Chairman J. Leo Sauer, of the F. A. M. Legal Action Committee, explaining his inability to be present owing to a lecture engagement in Philadelphia. Mr. Sauer's letter suggested that the proposed convention be postponed to permit of co-operation by the up-state clubs. After a brief discussion it was decided to hold the state assembly July 3-5, and Poughkeepsie was mentioned as a likely scene for the program. R. S. Morton, Henry Kest, of the Harlem M. C., and President Bowl, of the Plaza M. C., were named as a committee to get in touch with clubs throughout the state with a view to interesting them in the convention plans. Another meeting of riders of the Metropolitan District will be held in the World Building Monday evening, May 12.

A SOCIABILITY run to Clifton and Clyde was recently made by members of the Clay Center (Kan.) M. C. At Clifton the party was joined by riders of that city.

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24-Hour Run to Feature Indiana Program

State F. A. M. Body Plans 'Round-the-Clock Circuit Out of Indianapolis for May 17-18—Complete Regulations and Outline of the Route—Merz Heads Big Squad of Club Boosters

F. A. M. riders of Indiana, headed by John E. Merz, the Federation live wire and trade booster of Indianapolis, are now perfecting plans for a twenty-four-hour endurance run to be held in connection with the state convention, May 17-18, and the outlook is bright for a most successful program. Merz is devoting much time to the convention schedule and particularly to the endurance run arrangements, and is visiting many cities in person to get in touch with motorcyclists and arouse interest in the project.

It is the intention to have the run start at noon on May 17 and close at noon the following day. The route will be from Indianapolis to Martinsville, Gosport, Spencer, Vandalia, Bowling Green, Terre Haute, Rockville, Crawfordsville, Frankfort, Elwood, Tipton, Alexandria, Muncie, Dalton, Hagerstown, Richmond, Knightstown, Greenfield and return to Indianapolis. The riders will check out at the headquarters of the Indianapolis Motorcycle Club.

The event will be open to all F. A. M. members, without regard for the size of motor used, but contestants will not be permitted to use ported cylinders. Machines must be provided with efficient mufflers and full road equipment, according to catalog specifications. The entry fee will be $3 for amateurs and $5 for professionals, and post entries will entail fees of $5 and $10, for amateurs and professionals respectively. The entry list will be closed at 6 p. m. on May 15, and blanks and entry fees should be mailed to F. I. Willis, 113 West Market street, Indianapolis, without delay.

Contestants will be called upon to report at the headquarters of the Indianapolis Motorcycle Club at 9 a. m. on May 17, so that their machines may be inspected by the contest committee and to permit of numbers and schedules being distributed. Each entrant will be furnished with a running schedule naming all the principal points en route, progressive distances and the time at which he is due at checking stations and controls. Entrants will be divided into A and B classes, the former for amateurs and the latter for professionals.

The official route will be marked with signs at all turns and crossroads as follows: One white line to indicate a right turn; two white lines to indicate a left turn and one cross to inform the rider that his course lies straight ahead. The riders will be started in pairs at one-minute intervals. The supper control will be at Terre Haute, the midnight control at Frankfort, the breakfast stop at Richmond, and the finish at Indianapolis, as before stated. There will be checking stations at Spencer, Rockville, Alexandria and Greenfield. A rider found thirty minutes ahead of his schedule at any of the checking stations will be disqualified.

Complete replacements of motors, mufflers, carbureters, timers, tanks, magnetos or wheels will not be permitted, under penalty of disqualification. Should a contestant break the seal placed on any of these parts by the committee he will be penalized five points for each seal broken. The other penalties will be as follows: One point for each minute early or late going into or leaving controls, not in excess of thirty minutes; two points for each minute thereafter. Contestants will be liable to disqualification for the following: Repair work on machines while held in controls; being towed or using any power in covering the course other than that of his machine or his own muscular power; making replacements as named in a paragraph above; cutting the course and failure to sign the checking sheet at any control.

The contest committee places special emphasis on the announcement that machines must be equipped with efficient mufflers, and riders will be warned against using their cutouts when passing through a town.

Unusual interest has already been aroused in plans for the run and it promises to be one of the most successful ever put on in the Middle West. A number of entries have been received and there are indications that before May 15, when the list closes, the number of riders lined up for the event will break records.

Important Bridge Down At Herkimer

Tourists Crossing New York State Must Follow Revised Route Because of Damage to Bridge Caused by Recent Floods.

ONE result of the recent floods in New York State was the carrying away of the steel highway bridge over West Canada Creek, at the eastern edge of Herkimer, N. Y., a short distance above the junction of this creek with the Mohawk River. Unfortunately, this bridge was on the main line of travel between Albany and Buffalo, and was the only entrance into Herkimer from the east via the State road on the north side of the Mohawk River; and its destruction is temporarily interfering considerably with road travel across the State. The flood was caused by the immense amount of water coming down from the lower Adirondacks over Trenton Falls and by West Canada Creek, sweeping away the structure that has done duty there for many years.

While this bridge is down, it will be necessary for west-bound motorcyclists to leave the State road on the north side of the Mohawk River at the Hotel Richmond, Little Falls, crossing to the south side and running along through Jacksonburg and passing the site of old Fort Herkimer, recrossing the Mohawk River and the New York Central tracks —a very dangerous grade crossing—into the center of Herkimer, joining the usual route. Eastbound it will be necessary to cross the New York Central and Mohawk River at Herkimer, following eastward past old Fort Herkimer and through Jacksonburg, recrossing the Mohawk at Little Falls, and joining the through State road by a right turn near the center of the city.

It is unfortunate that this should have happened on the most important trunkline in New York State, particularly at a time when the road conditions generally on that line have been very much improved. Of course, touring motorcyclists will necessarily accommodate themselves to this new condition. A temporary structure has been contracted for, to be opened in May; meanwhile the State Highway authorities are planning a fine new bridge, not only to take the place of the old one, but also to eliminate the steep hill over the present route.

ONE DEALER OMITTED

IN REFERRING to the motorcycle dealers of Pittsburgh, Pa., in a recent issue the name of H. E. McCanless was inadvertently omitted. Mr. McCanless is one of the leading dealers of the city and the item was incomplete without his name. He handles both the Schickel and Reading-Standard machines, and supplies. His headquarters is at 1611 Penn avenue.

A. FREED, the hustling Thor distributor on the Pacific coast, forwards the accompanying photograph from his San Francisco headquarters. It shows one of Freed's enthusiastic patrons in Sacramento using his motorcycle to haul a load of oranges into the city. Note the unique construction of the trailer and the size of the crate that the rider manages to handle with the aid of his single-tracker.

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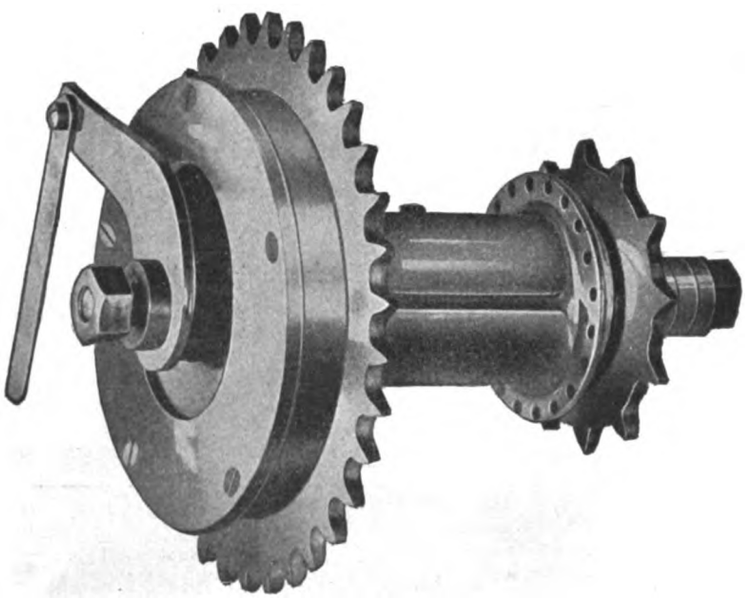
ECLIPSE

As a Stopper It's a Corker

The Brake You Can Trust

Terrific Gripping Power
Tremendous Strength
Unfailing Reliability
Instantaneous Action

These four positive qualities, harmoniously combined, produce this exceptional brake, "The Brake You Can Trust." More powerful than an automobile brake in proportion to its size—One Hundred Square Inches of Braking Surface.



Dealers—we again ask you to look ahead. Do not be caught napping. We positively predict the most sweeping, the most insistent demand from riders, for Eclipse Free Engine Pulleys and Multiple Disc Brakes that has ever been experienced since their introduction to the motorcycle rider. Lay in a heavy stock. You will thank us for this sincere and earnest advice—if you follow it.

ECLIPSE MACHINE COMPANY

ELMIRA, N. Y. **(Licensed)**

H. T. ROBERTS, Selling Agent, Railway Exchange Bldg., Chicago

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MOTORCYCLE ILLUSTRATED

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J. LEO SAUER, President.
H. N. CONDICT, Secretary.

WESTERN REPRESENTATIVE:

HARRY G. JACOBS

1220 First National Bank Building, Chicago. Telephones 5908 Central and Randolph 1022.

CIRCULATION THIS ISSUE MORE THAN 14,000 COPIES.

IMPORTANT.

OWING to its large circulation, it requires two full days of 24 hours each, after the last form has closed, to print, bind and mail a full edition of MOTORCYCLE ILLUSTRATED. In view also of the fact that this publication is read in more than 2,400 different cities, towns and villages in the United States, its wide distribution demands that each issue be placed in the mails not later than noon every other Thursday, the date of publication. In order to make the mails at this time, forms must close not later than 6 p. m. Tuesday, and advertising copy cannot, therefore, be handled if received later than Tuesday morning.

RECEIPT OF TEXT MATTER.

This applies also to text matter. Photographs should reach us not later than Monday morning preceding each date of issue. They will be given better attention if reaching us the Saturday preceding.

CORRESPONDENCE.

MOTORCYCLE ILLUSTRATED requires correspondence and subscription agents in many towns where the paper is not already so represented; we pay a liberal commission to subscription agents, and the best space rates for text-matter, drawings and photographs.

TELLING HOW TO TOUR

MOTORCYCLISTS throughout the country who were moved to compliment us upon the makeup of our 1912 Spring Touring Number will find that the coming Spring Special—due May 15—will make even a stronger appeal. We say this without qualification, for never have we entered with more enthusiasm upon the preparation of a special number of MOTORCYCLE ILLUSTRATED.

The May 15th number will be unique in several respects, but primarily because it will tell HOW, as well as WHERE to tour. Herein is embodied a fertile idea, one that has kept us busy for weeks past and that will pay big returns to the rider—and to the advertiser who is catering for the rider's patronage. In addition, there will be an unusually striking array of pictorial features—exceptional even for MOTORCYCLE ILLUSTRATED.

If you are a rider we need only call your attention to the fact that the 1913 Spring Touring Number will be issued May 15; if an advertiser, we feel that only one suggestion is necessary—forward your copy early.

EDITORIAL VIEWPOINTS

REGARDLESS of tariff tinkering, war scares, vice commissions, and what-not, the business of the manufacture and sale of motorcycles grows apace. In every part of the country the writer has found the demand to exceed the supply. Every live dealer is doing splendidly, whether his store be located in Boston or Los Angeles; in Jacksonville or Seattle. Everywhere there are signs that the motorcycle's growth in popularity during the past twelvemonth is one of the most remarkable manifestations of public enthusiasm in the sport history of the world. Neither the politicians nor the diplomats will find it possible to hamper the motorcycle business for 1913, or 1914, or 1915, for that matter. Any number of makes and models are giving splendid service to thousands of delighted owners, and each properly operated machine is making friends for the sport. A tour of the country has convinced the writer that the outlook could hardly be brighter. Only the concern which cannot deliver, and the dealer who is unable to get deliveries, can possibly have any fault to find with either the present situation or their prospects.

THE EXEMPTION OF SIDECARS

THAT motorcyclists of New York State have no reasonable grounds for complaint relative to their legal status, is evident once more in the declaration just issued from the office of the Secretary of State exempting sidecars from registration. Owing to the law's tendency toward circumlocution and weird presumptions, a less favorable interpretation might easily have been given, and the decision that sidecars do not come within the scope of the statute applying to automobiles is marked by a spirit of fairness that does not characterize the attitude of state officials in general. It is to be taken for granted that sidecar users of New York City and vicinity who have been compelled to pay five-dollar registration fees of late will have their money refunded, and that police officials will quickly accustom themselves to distinguishing between a motorcycle passenger attachment and an automobile.

F. A. M. STATE ORGANIZATIONS

FROM coast to coast and from Boston to Dallas, the F. A. M. director who has just completed his long tour of the country has sought to impress upon his audiences the desirability of organizing each state to the end of enabling every member of the Federation to take active part in its government. Assurances have been given everywhere and in at least a dozen instances, the work is already under way. This is particularly true of practically all the New England, Middle Atlantic and Middle Western states, also Maryland, Virginia, and a few of the states in the Far West and on the coast. The plan of procedure is roughly outlined elsewhere in this issue, but the idea is to afford to F. A. M. members and riders in each state the widest possible latitude. The national body does not limit the state commissioners and assisting clubs to any specified organization scheme, the only limitation being the reasonable one that nothing shall be done which might conflict with the provisions of the F. A. M. constitution and by-laws.

The national directorate, the national committee chairmen and the national officials have heretofore shouldered the burden of practically all the executive and administrative work, not because of any desire on their part to "run the F. A. M." but, instead, because they found it necessary to do the work pending the development of a thoroughly systematized national organization and, more particularly, the perfection of the various state organizations, several of which have already proven their tremendous value.

State lines are the normal limits of governmental units in an American organization having, like the F. A. M., a country-wide scope. Two or three states have already shown what can be accomplished by State bodies when well organized, and as the mode of procedure is so simple, the excellent examples set by the most active State Commissioners should, and promise to be, followed during the next three months by a score of other State heads. We predict that the F. A. M. and its entire membership will benefit wonderfully as a direct and immediate result of the organization movements now being boomed.

NIGHT RIDING AND THE SPEED FIEND

SEVERAL letters have been received by the Editor of late expressing the hope that this publication will undertake an active campaign against indiscriminate speeding on the highways, and that methods will be found to prevent individual riders from engendering unfavorable public sentiment by their reckless disregard of the rights of pedestrians and other road users. Within the last month at least half a dozen motorcyclists have maimed themselves, destroyed their machines and involved other persons in accidents that were easily traceable to carelessness on the part of the motorcycle pilots, and in addition several serious mixups have occurred as the result of night riding without proper lighting apparatus on the machines. Here are two problems out of the same cloth. The rider who drives his machine at top speed over unfamiliar highways—or even over those with which he is well acquainted—is quite likely to attempt night trips without a headlight, or with a makeshift, and he is also a difficult chap to approach with an argument. Were he otherwise he would not be found in the category above referred to.

We are at a loss to state just how a reformative movement can be made productive of results, but it would seem that affiliated clubs should be able to curb careless members, at least to the extent of preventing them from venturing upon the highways at night without efficient lighting equipment. The speeder presents a knottier problem, but he, too, may have a crimp put in his recklessness by judicious club regulations, strictly enforced. MOTORCYCLE ILLUSTRATED has preached the doctrine of efficient lighting for years past, and has never overlooked an opportunity to impress upon the highway speedster the damaging influence of his dereliction. With the summer riding season again at hand, there is the usual crop of fatalities and sensational accidents to be credited to the speed fiend, while the rank and file of motorcyclists continue to suffer unjust condemnation. What's to be done about it?

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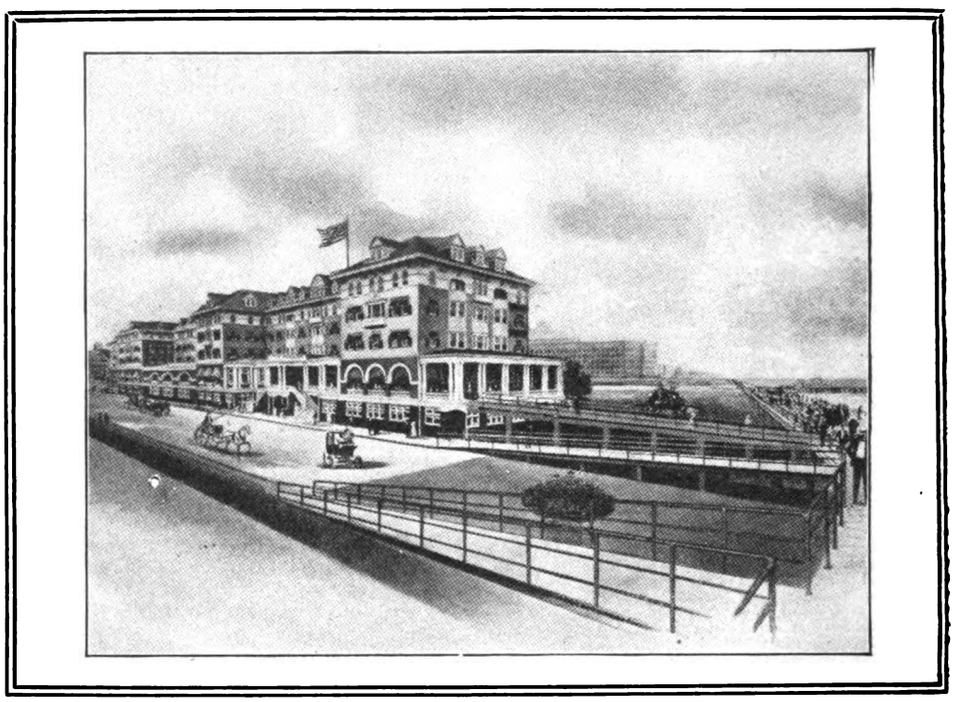
Headquarters for Cycle Parts Convention

Trade Men Will Gather at St. Charles Hotel, Scene of Previous Successes, for Their Annual Program to Be Held in Atlantic City, August 5-8—Four-Day Schedule Now Being Prepared

ANNOUNCEMENT is made by the committee in charge of arrangements for the seventh annual convention of the Cycle Parts and Accessories Association, to be held in Atlantic City, August 5-8, inclusive, that the St. Charles hotel will again be the official headquarters. This statement will be welcomed by the members of the association, in view of the fact that the St. Charles has been the scene of the convention for the last two years. Arrangements have been closed for meeting rooms at the hotel, to be used by the Motorcycle Manufacturers' Association, the Cycle Jobbers' Association of America and the Cycle Parts and Accessories Association, and a liberal promise has also been given by the hotel management relative to individual accommodations.

Vice-president David Smith and Treasurer William J. Surre, of the Cycle Parts Association, make up the committee of arrangements. On a recent trip to Atlantic City they learned that the St. Charles hotel will be prepared to accommodate 150 of the convention visitors, provided no time is lost in making reservations. It is suggested that when rooms can no longer be reserved at the official hotel, prospective visitors may be accommodated satisfactorily at the Lorraine or Raleigh hotels, which are almost opposite the St. Charles, or at the Islesworth, which is about two blocks distant. Reservations for rooms must be made directly to the hotel management, a rule which recently went into effect prohibiting the committee of arrangements from undertaking this task for the individual members.



The committee is now at work on an elaborate program to cover the four days of the convention at the famous New Jersey resort, and while it will be difficult to make the schedule more interesting than preceding ones from a business viewpoint, it is stated that sufficient variety will be injected into the entertainment features to establish a new record for general enthusiasm. The official headquarters for the convention is shown in the photo above.

Four National Tours to F. A. M. Convention

ACCORDING to the present plans four national tours to Denver will be conducted by the F. A. M. in connection with the 1913 convention of the governing body, but as yet the only road program to be mapped out is that of the Southeastern Division, which will be merged with the annual outing of the Kansas Short Grass Club. Recently officials of the F. A. M. and the American Automobile Association met in Hutchinson, Kan., and agreed to co-operate on plans for the tour, and as a result it is likely that no less than 1,000 motor cars will accompany the Short Grass riders in their run to Denver. The clubs that are to figure in the tour will leave Salina, Emporia and Wichita July 20 and meet in Hutchinson, where an interesting program is to be given.

The motorists will then proceed over the Santa Fe Trail to Pueblo, Canon City, Colorado Springs and on to Denver. The scenic features along this route are not surpassed anywhere in the world, and the Short Grass riders and their guests from neighboring states will take advantage of every opportunity for side trips along the line. It is the intention to confine the actual road work of the tour to the mornings, as far as possible, so that the afternoons may be left open for special entertainment programs and outings to points of interest.

Arrangements will be made by the Short Grass tourists to pay their secretary a certain sum at the beginning of the trip so that general expenses along the route may be paid out of a common fund. The total outlay for the trip is figured at $20 per rider. This fee covers all hotel bills and storage expenses from the time the squad leaves Hutchinson until after the first dinner in Denver. The trip to the convention city has been so mapped as to consume ten days. The riders will get under way at 7 o'clock each morning and a schedule of about 20 miles an hour will be maintained. There will be no attempts at speeding and the whole program has been arranged with a view of affording a fine pleasure trip, not a speedfest.

The Short Grass Club requires each member to wear a uniform, so that an impressive display will be made when the riders are in line. Each rider will be supplied with a pennant by the club. The touring body will be divided into squads of twenty-five men, each under the leadership of a captain and a lieutenant. If the schedule is adhered to the Short Grass tourists will arrive in Denver at noon on July 30.

Full information relative to the tour may be obtained from P. E. Zimmerman, of Lindsberg, Kan., secretary of the Short Grass Club. Mr. Zimmerman is also ready to receive applications from those who wish to accompany the Kansas squad on the trip to the convention city.

Announcement is made that the three other tours to Denver, in addition to the Short Grass or Southeastern Division, will start from San Francisco, Chicago and Aberdeen, S. D. W. G. Collins, of 636 Van Ness avenue, San Francisco, is in charge of arrangements for the touring body that will leave the Pacific coast for Denver; P. N. Bushnell is booming plans for the tour that will have Aberdeen, S. D., as its base, and Dr. B. C. Wildman, of Havelock, Neb., is the organizer for the Central Division.

HAMMER'S BIG ORDER

E. H. HAMMER, of Hammer & Bissett, agents for the Indian in Minneapolis, Minn., reports that the company has just sold its eighth machine to the Minneapolis Electric Company. The Electric company bought four machines last year and has now bought four of the 1913 models.

C. H. TURNER and E. R. Davis, motorcyclists of Topeka, Kan., are riding their motorcycles from Chicago, Ill., to San Francisco, Cal. The boys left Topeka on April 21 and went to Chicago by rail. Their route to the coast is by way of Denver, at which point they will be joined by two other riders.

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A Forty-Mile Jaunt on Long Island Highways

Route for a Pleasant Night Trip That Is Open to Riders of Metropolitan District—Many of the Roads Mentioned Have Been Improved During the Last Year and are Well Lighted

RIDERS of the metropolitan district will no doubt welcome the following suggestions for short night trips over the Long Island roads. The recent improvements on Long Islands roads generally, and through Queens County in particular, have made night runs more popular than when the motorcyclist had to depend upon his searchlight to pick out the road. The roads on the following route are all well-lighted and for the most part have been rebuilt within the last year. The following run of approximately 40 miles will be found to meet all the requirements for a short jaunt.

From Manhattan the route lies over the Queensboro Bridge, across the plaza and Jackson avenue, and over the viaduct to Thompson avenue—a magnificent bit of pavement lighted as brightly as Broadway. Thompson avenue is followed into Hoffman Boulevard, and this in turn into Hillside avenue, Jamaica, really the beginning of the trip. From Brooklyn this starting point is best reached by Eastern Parkway, always in good repair, to the Brick Hill leading up into Forest Park. A beautiful road through the park, though almost unlighted, leads into Hoffman Boulevard, just a mile or so above Hillside avenue.

Hillside avenue is good going until the Peace Monument is reached. There a turn to the right leads one across Fulton street and the Long Island Railroad tracks into the Merrick Road. The first part of this road has been repaved and lighted, and is now a boulevard for the one and one-half miles which it is to be followed. A turn to the left carries the motorist along Central avenue then to Springfield Road, which crosses the Long Island Railroad tracks at Queens.

The road is followed across the Hempstead-Jamaica Turnpike and the Jericho Turnpike into Hillside avenue. Here a usual turn is to the left, leading back to the city over the Hoffman Boulevard.

A variation which leads the night-time driver over other good roads is to cross Hillside avenue and follow the Rocky Hill Road, a winding path to Bell avenue, some three miles beyond. Twenty-two miles have then been covered from Queensboro Bridge, and three miles further on, through Bayside, Bell avenue becomes Willett's Point Road and leads to Fort Totten. A turn to the right there, on Fourteenth street to eleventh avenue, and a second right turn at Eighteenth streets, leads into Thirteenth street, College Point. After crossing the College Point Causeway and taking the first turn to the right one gets into Jackson avenue, crosses the Flushing River, passes the Shell Road, and then turns to the right once more into the Astoria-Flushing Road. The road runs straight then to Second avenue, and a turn to the left leads to the Queensboro Bridge and home.

The Brooklyn motorist may turn to the left again at the bridge, and, instead of crossing it, follow the Manhattan man's original route down Thompson avenue and Hoffman Boulevard to the Forest Park Road and back over this to the Brick Hill and Eastern Parkway.

A TOWING RECORD?

A DEMONSTRATION of the pulling power of the Yale single was recently given when W. H. Schafer, agent for the Yale at North Creek, Ohio, towed John Dwar on his machine to Toledo, a distance of 75 miles, in just three hours. Dwar was riding toward Toledo when the exhaust valve on his machine broke and he asked Schafer to tow him to Toledo, as he could not wait for a new valve. Schafer assented and brought his Yale single out for the trip. There were a number of stiff hills encountered and in some places the roads were in bad condition, but the trip was made without mishap.

IT would be difficult to imagine more severe tests than those to which Dayton motorcycles were subjected during the recent flood period in Dayton, Ohio, and that the machines measured up to expectations on every occasion speaks volumes for their dependability. They were used for all kinds of work, but in each instance the prime requirement was get-thereitiveness and the city was given the finest kind of a first-hand demonstration of the adaptability of motorcycles in general and the Dayton in particular.

The Davis Sewing Machine Co., producer of the Dayton, turned about fifty of its machines over to the relief squads and they were given the hardest sort of usage. The squad that appears in the photograph is made up of Dayton motor-cops, equipped with Dayton motorcycles. They established a remarkable record for efficiency, for ability to carry on their work in the face of appalling conditions, and their Daytons stuck to them from start to finish. As a result the city of Dayton has a new conception of the motorcycle.

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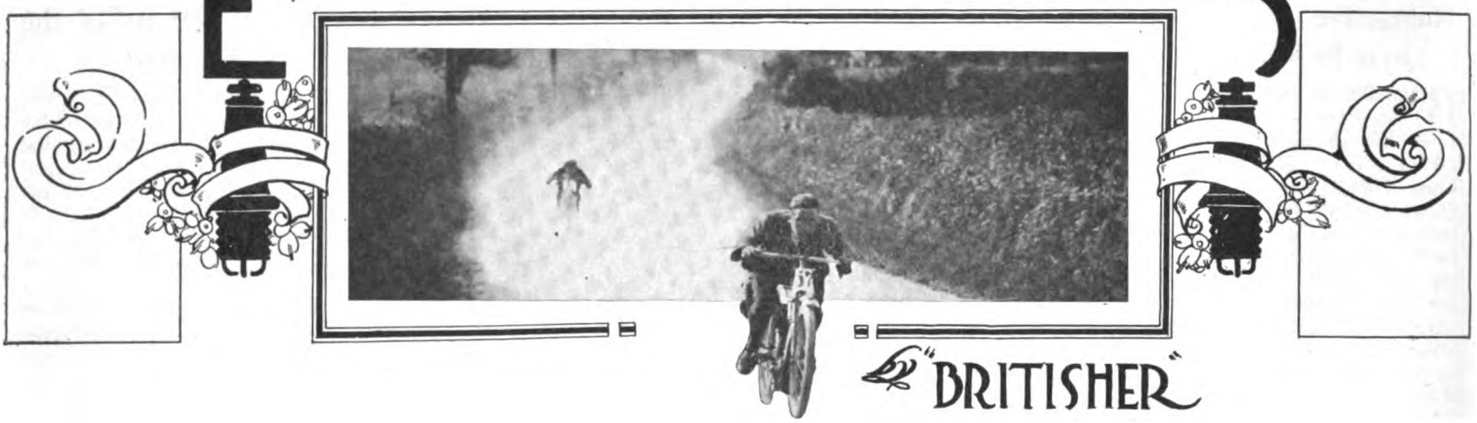
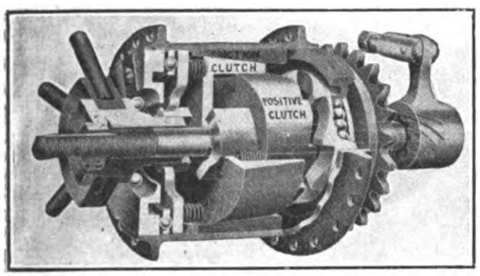
ENGLISH NOTES



"BRITISHER"

THE writer's first experience of free engine clutches dates back to 1903, when he rode a machine fitted with a miniature plain leather cone on the crankshaft. You had to wear a rubber-soled shoe to let this ferocious little coupler in without balking the engine; it slipped like a drunken man on ice, and not infrequently shed its intestines on the roadway, while the end-thrust it created was positively terrific. Since then we have travelled far and fast, and today a hub clutch, embodying 24 steel discs, is the most popular; these hub clutches render a start up a 10 per cent. grade quite possible with a 3½ h. engine geared 5 to 1, and are reliable in wear. Their sole defects are that they must be accurately lubricated with the correct oil, that the springs require replacing about every 2,000 miles, and that the presence of the clutch complicates the removal of the back wheel for tire changing purposes.



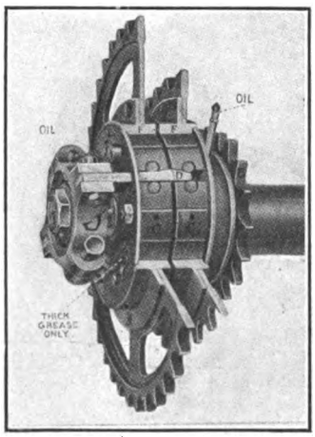
The Villiers Free-Engine Hub.

Of all free engines I have tried, the Villiers, illustrated herewith, makes the strongest appeal to me, for it always permits of a gentle gliding start, and yet insures an absolutely slipless drive. The drawing shows its duplex construction. When the controlling pedal is let up the drive is first taken by a frictional cone clutch, enclosed in the hub and embodying a satisfactory contact area. As soon as the friction surfaces are home, a second and positive clutch, formed of metal dogs, slides into engagement, and the drive is thenceforward positively locked. This clutch was designed and patented by a young mechanic, employed in the Bradbury factory, and is now applied to many different makes of machine.

THE RUDGE MULTI GEAR.

Hard on the heels of the Triumph in the race for supremacy comes the Rudge, which has a slightly superior track record, but has never equalled its older predecessor in road events. Freak hill climbing is all the rage in our endurance runs at present, and corner-strewn grades of 1 in 4 and 1 in 3 figure in almost every competition. The three-speed hubs make light of these acrobatic ascents, as they can get a bottom gear of 12 to 1, or even lower, at will; and these freak gears are impossible with machines which, like the Rudge, rely on expanding and contracting pulleys for a change of ratio. But the Rudge continues to hold its own with the general public, because its duplex pulley system affords ratios from 3½ to 7½ to 1, between which no less than twenty gears are obtainable by the single action of moving the long lever shown in the print.

These infinite ratios enable the rider to set his gear at precisely the correct ratio for any road conditions; and they are far more delicious to ride than any gear limited to two or three arbitrarily chosen "steps." The engine pulley expands and contracts under the motion of the long black lever, which is covered with celluloid, and is released from the "gate" on the tank side by a slight inward pressure. Simultaneously the belt slack is taken by the rear pulley. The outer flange of the rear belt-rim is separately spoked to a sliding shell in the rear hub. As the outer flanges of both pulleys move in the same direction for all gear changes, the belt is always in line.



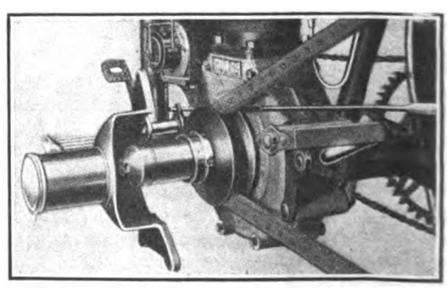
Phelon-Moore Two-Speed.

A multiple disc clutch is enshrined in the long barrel perceptible on the tip of the crankshaft; this clutch is operated by a tiny handlebar lever through a flexible wire. For passenger purposes the Rudge Multi is provided with a 750cc. engine, a single-cylinder rated at 6 h., with a long stroke of 130mm. I am at present bestriding one of these monsters, and find it will roar up any grade on its top gear of 3½ to 1; the standard machine, as delivered to me, will do 75 m. p. h. on the flat, and will carry a sidecar and four men up a grade of 16 per cent. on its bottom gear of 7½ to 1.

THE PHELON-MOORE TWO-SPEED CHAINDRIVE.

The Phelon-Moore is probably the British machine which approximates most closely to American practice, in that it has chain drive, an inclined engine, and a two-speed gear. It is unique, in that it has won high place on the home and colonial market without ever scoring a single speed success of any sort or kind. It is quite a slow machine, and its engine cannot be induced to turn over at the 3,000 r. p. m. beloved of speed merchants; but it is magnificently reliable, and it wears for evermore, world without end, amen.

The details illustrated show how eight years of experience have led a British maker to soften the acerbities of chain drive, when transmitting the power of a slow-running, bullocky single-cylinder engine. The row of bits shows the manner of fitting the front sprockets. The high gear sprocket is rigidly mounted on a barrel, keyed and nutted to the engine shaft; but the low gear sprocket is friction-held by a spring washer and double nuts; on paper one might guess that this "spring drive" would be rigid in practice, but on the road I have learned that a tap on the nicked locking ring increases or softens the rigidity of the drive in marked fashion. The second cut shows the double clutch arrangement on the countershaft. The spring bronze rings C are expanded by the wedgebars D, which are shown in the intermediate position, where both clutches run free. Any couple of gear ratios desirable may be ordered. The chains are adjusted by revolving the entire gear in an eccentric mounting; this is the weak point of the gear, as the chains share a common adjuster, and their wear is uneven; but it has not militated against success. Most users make up the long chain in two sections,



Rudge Free-Engine Clutch (cover removed).

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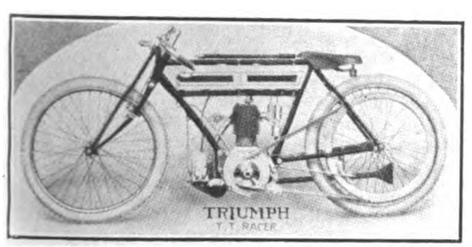
of which the shorter contains the same number of links as the other chain, and occasional swapping equalizes the wear. The P. & M. team have won the team prize for many years past in all our big trials with quite monotonous regularity. Their three or four entries, usually comprising two amateurs, invariably climb all the hills, record absolute non-stops and finish looking cleaner and nattier than anybody else.

Another picture shows a fearsome monster, indeed, in the shape of the 8 h. Williamson, which is really the big sister of the world-renowned Douglas machines, though it goes by a different name. Its genesis was as follows: the Douglas factories were overburdened with orders for their 2¾ h. horizontally-opposed twins, and could not respond to the demand for a more powerful machine on the same lines. But the engine factory was less busy, and was making a water-cooled 8 h. twin for the Marconi Wireless Company. Mr. Williamson found himself at a loose end, commercially speaking, and he got a contract to deliver a decent number of 8 h. twin engines in both the air-cooled and water-cooled forms.

He saw its perfect balance, enormously high revolutions, unique smoothness and general popularity promised it a big market; and slinging it in a suitable frame, he began to offer it to sidecar enthusiasts. It is selling faster than he can turn them out, though nobody on this side uses such a giant engine for solo work. As the prints indicate, the engine has an outside flywheel, with its weight concentrated in the rim, and the drive is by two wholly enclosed chains, a dog clutch two-speed gearbox figuring as the countershaft.



The Triumph Stripped for Racing.

I depict herewith the best-known of all British motorcycles, the 85mm. x 88m. Triumph, shown in its racing guise. It is also made as a road speedster, as a light tourist with hub free engine, and as a go-anywhere tourist, with three-speed gear in the back hub. Conservatism has been the keynote of Triumph policy, directed by a board including a large element of naturalized Germans. Its makers are always busy trying out many new notions—at the present moment they have eight different variable gears and three revolutionary engines under test; but they never standardize or sell any fitment, large or small, until it has undergone the most crucial butchering on the road.

For this purpose they rely very largely on their most expert amateur customers, who are often supplied with experimental machines twelve months ahead of the time, and asked to butcher them as thoroughly as possible; the factory testers are fully employed in passing the output of stock jiggers, though two testers are given the chance to smash up anything new. The position of the firm on our market is now so paramount that they get the first look at anything new brought out by small inventors in search of a financier.

IMPENDING RECORD ATTEMPTS.

The proposed cyclecar road race, by which the Irish Automobile Club proposed to observe the tenth anniversary of Jenatzy's Gordon Bennett, is bang off; as I prophesied, the cyclecar manufacturers had too much sense to submit their flimsy vehicles to a day's bucketing at top speeds over the rough roads and donkey-back culverts of the Emerald Isle; it would have been a toss-up whether anybody finished at all. In lieu of this exciting item we are now promised several attempts to set up a cyclecar record between Land's End and John O'Groats, and the services of drivers who know the route and have won honors over it, are in great request.

The distance is nearly 900 miles, and the

P. & M. Sprocket Fittings (*see opposite page*)

roads are representative, including much shocking going and some dreadful hills. If anything of an advertisement is to be won, the existing sidecar record must be beaten, so that a speed of 25 miles an hour all through, inclusive of stoppages, must be maintained. It is very doubtful whether any existing cyclecar can stand the racket. However, two or three eager makers are laying their plans for next June, when the dark nights will be at their minimum. The machines that go for record will, however, scarcely be standard; I hear of special multi-speed gearboxes being fitted amidships when the back axle is the standard location; of special engines; of relays of detachable wheels, ready shod with special tires, being stacked at 50-mile depots all the way down—in short, of the usual complete organization designed to excite and to hoodwink a rather gullible public. In any case it will be creditable if any of the vehicles get through without tumbling to pieces. To drive a 7 cwt., under-engined chassis at racing speed over 900 miles of bad road is a tough proposition. After it is over, the Auto-Cycle Union will promptly suspend the driver *sine die* for a breach of the road laws, so that professionals are rather chary of taking on the job; they may fail to finish and still lose their right to compete in official events.

THE CRAZE FOR SPEED WORK.

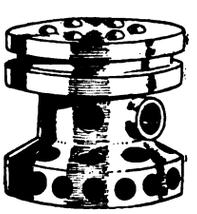
The appended drawing of the Zephyr steel two-piece piston show the lengths to which the speed craze is carried over here. Let it be clearly understood that these special speed-coaxing bits are not made solely or chiefly for the crack professionals. Dozens of amateurs all over the country experiment in these costly directions with much labor in order to win the local hillclimb against neighboring amateurs. The waist of the piston, like the holes with which it is riddled, prevent the excessive oil fed for fast work from entering the explosion chamber and drenching the sparking plug, while the steel lessens the weight and sends the revolution curve towering steeply upwards.

The top or ring-carrying section is a mere featherweight, riveted to the sturdier lower portion, which carries the gudgeon pin. Other laborious items beloved of the speedier amateurs are special cams, permitting freak valve-timing overlaps; the purchase of valve-rocking levers, in the soft, filed to freak contours.

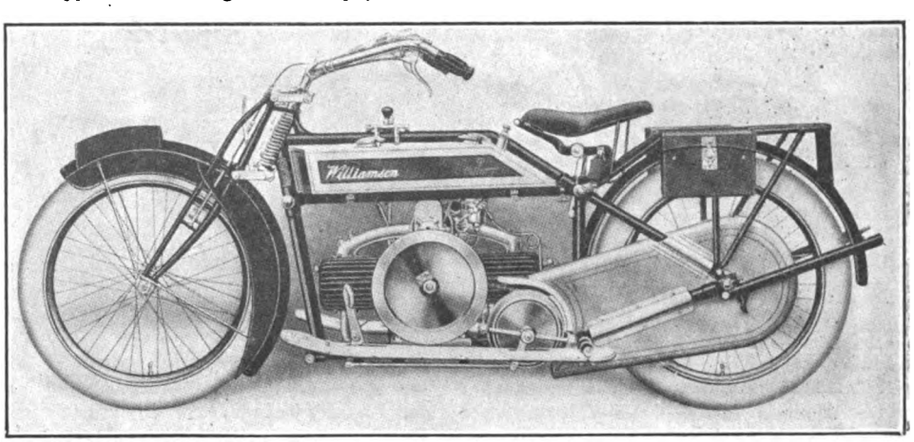
THE ARDEN CYCLECAR.

My first experience of what would now be termed a "cyclecar" happened to be with an American-built Crestmobile, for which, if memory does not betray me, I paid $425 about ten years ago. It was a very light two-seated chassis, carrying a 3½ h. air-cooled engine, mounted vertically in front of the dash, tiller steered, driving by a chain to a countershaft, on which two sliding metal cone clutches coupled up either of two chain and sprocket drives to the back axle. I remember that it used to burn out an exhaust valve every 100 miles; that its chains snapped with astonishing frequency, and that I had to dismount every fifteen miles to pour oil through a plug-hole into the crankcase.

Last week I drove one of its British descendants, the Arden cyclecar, which is a miniature small car in outward appearance. The bonnet is fronted with wire gauze, behind which modestly lurks an 8 h. V twin engine, air cooled, 85 mm. x 85 mm., with two internal flywheels and an extra heavy external flywheel added for luck and steadiness. A chain conveys the drive to a three-speed gearbox amidships, whence a shaft carries on the good work to the rear axle. It has no hub brakes, but a single central drum carries an internal and an external brake.



Zephyr Steel Piston Designed for Speed Work.



The 8 h. Williamson, Big Sister of the Douglas.

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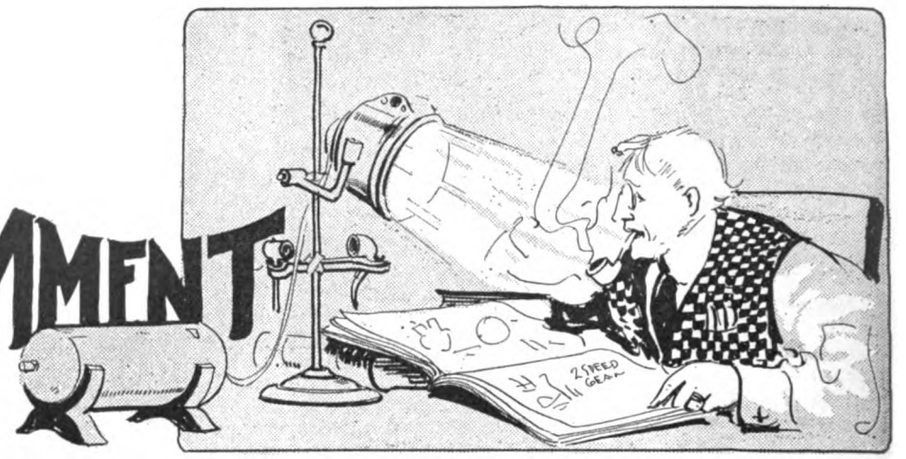
KINKS & KOMMENT

by "COURIER"



THE rider of a certain make of machine naturally thinks that his is the best, with a capital B; to admit that another make was better would be a reflection on his own judgment in choosing as he had chosen. This may be loyalty in a high degree, but it is usually accompanied by the juvenile habit of blaming some organ of the machine for the neglect of the owner. Those brothers who used the clutchless motorcycles of past seasons will remember the old excuse: "Compensating sprocket was slipping," on the chain-drivers, and "belt was stretched," on the flat-belters. Now the poor clutch is blamed: it is never right when the other fellow has done the "trimming." The blame is thus transferred to the manufacturer, to save the *amour propre* and use of a wrench of the rider. Isn't it about time that a rider should "take his medicine" and act like a true sportsman when somebody else has shown himself his superior in riding, instead of grouching? The pastime is certainly old enough for true sportsmanship among amateur riders.

USING SECURITY BOLTS.

IT MAY be said that the standard tire for twins this year is the 2¼-inch, but there are a number of 3-inch tires fitted also. Now, a 3-inch tire is pretty big to be held from creeping by only the valve-stem and its grip in the clinches, and right in my neighborhood there are several cases of constitutionally-leaky valves on these tires. The dealer whose buses have had the trouble says that it is the fault of the rider and the latter blames it on the tire-maker, to whom the responsibility belongs, but not in the way the rider means. What is needed is a system of security-bolts, such as are used on automobile tires—about three should be sufficient to each rim. This refers to driving-wheel tires especially, and not so much to front tires. At present, the rider will have to have these put in himself, but they will cure a lot of valve trouble that is now laid to the doors of the tire-makers.

WHY POWER FALLS OFF.

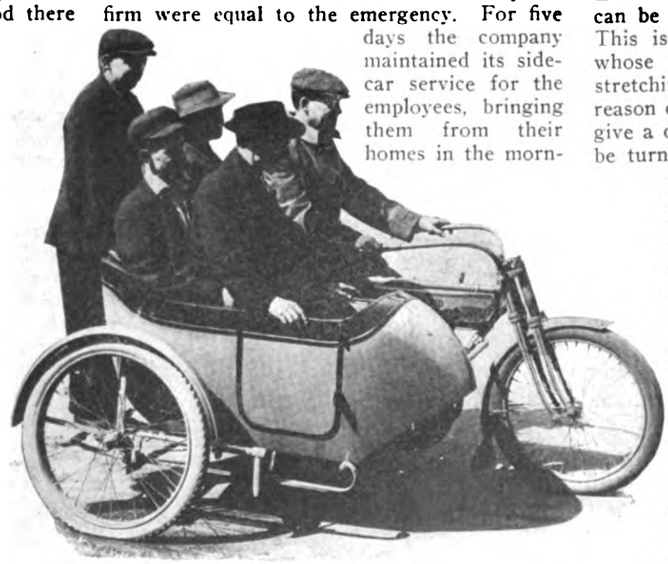
AFTER considerable use some motors are faster on the level than when first purchased, and this is true in particular machines that have not had a preliminary road test. But, with this increase of speed, there is too often a falling-off of power in climbing hills, which can generally be traced to raising of the compression by carbon deposits, reducing the clearance space. Cylinders should be cleaned every 800 to 1,000 miles, particularly if used for sidecar or tandem work.

SOME CHAIN ADVICE.

I WAS talking with a chain-sharp quite recently, and decided to get his end of the chain proposition, after having heard the riders' end for some time. Among other things, he argued that the chain should never be run very slack, as the tendency to "whip" broke more chains than did setting them too tightly. He said that the fear of having the chain jump acted as a good deterrent on most riders, but where the chain was tight the bearings were worn too rapidly, and where it was too loose, power was lost and a break might occur. He also favored running the chain always in the same direction; the practice of reversing it is poor economy in his opinion, and results in needing both renewal of sprockets and chain instead of a chain only. He spoke strongly against putting a new chain on old sprockets.

SOLVING TRANSPORTATION PROBLEMS

DURING the street car strike in Buffalo, N. Y., the Greyhound Motor Company found it necessary to carry some of its employees to and from their homes in sidecars, and the accompanying photograph proves that the Universal sidecar outfits manufactured by the firm were equal to the emergency. For five days the company maintained its sidecar service for the employees, bringing them from their homes in the morning and carrying them back at night. They could hardly be induced to go back to ordinary street cars again after their experiences with the comfortable Universal outfits. The sidecars bore the unusual strain without a hitch.



All these tips are interesting, but to follow them would be very expensive in the long run and most riders cannot see reason for laying out money on a new chain until the old one has been ridden until its useful life is long past.

LARGE OR SMALL CARBURETERS.

A CORRESPONDENT writes me that he cannot get a satisfactory carbureter for his motor, as owing to its unusual size, the stock instruments are either slightly too large or too small. He asks which one would be the better, and the answer is easy; the small one should be taken. The idea is to get the mixture to the motor as cool as possible, and the small carbureter will give a very cold mixture even in the hottest days of summer, while the large one will give a weaker and flabbier mixture, which, if made richer than normal, will soon cause overheating. On the other hand, with the small carbureter there will be a tendency to form frost in the various passages on cold days, and in winter he may have to use another carbureter. Sounds odd, doesn't it, to hear some rider say: "Just took off my winter carbureter yesterday, and am using my summer one hereafter." But with the fuel we are getting now, it may come to that.

THE COMPRESSION COCK.

EVERY motor that has compression cocks can be started without using the valve lifter. This is a "kink" that is of value to riders whose piano-wire connections are given to stretching or where the lifter is for any reason out of service. When opened the cocks give a decompressor action and the motor can be turned over until it fires, when the cocks can be closed. For a twin, this should be done on the stand, but for a single it can be accomplished when running alongside also, as most singles have the cocks situated so that they can be easily reached. The compression cock was really the first decompressor and was so used as far back as 1897 on motor tricycles.

USE OF THE RAINCOAT.

THE late Jake de Rosier introduced kneepads into this country, having brought over a specially-built set for use on his racer, but any rider can improvise a good substitute with a raincoat. When this is folded and strapped to the tank so as to hang down each side, the knees will find a good grip for rough roads or speed work, and at the same time a good place for the coat is found where it is quickly reached when wanted.

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Route Changes Following Recent Floods

Motorcycle Tourists in Central West During the Coming Summer Must Be Prepared for Tedious Ferry Trips Across Rivers Stripped of Bridges and Detours to Avoid Damaged Highways

By Tourmaster.

IN view of the recent unprecedented floods, especially in the Central West, motorcycle tourists are making constant inquiries about changes in road conditions; and for convenient reference the subjects most discussed are covered briefly in the following paragraphs. In most cases this information will hold good throughout the greater part or all of the 1913 riding season.

Fortunately, the New England states entirely escaped these floods, and with minor exceptions, there are no radical changes in the routes of those six states for the coming touring season as compared with 1912. This is in fact the only large section east of the Mississippi River and north of the Potomac and Ohio, that has not been somewhat affected.

New York State as a whole suffered comparatively little, one reason being because its principal through highways are better drained and bridged than the average for the country. As noted elsewhere in this issue, the most important of the bridges carried away was the one over West Canada Creek at Herkimer, on the main line between Albany and Utica. Some incidental damage was done in the southwestern part of the state, but nothing to change the course of travel in that section. For several miles the New York Central tracks between Rennselaer and Hudson were under water; but the state road between the same points was not injured on account of its being on an average of two or three miles back from the river.

The through routes of Pennsylvania were very little damaged, except in the Ohio watershed, near or west of Pittsburgh; and the same can be said of West Virginia, with the exception of the Wheeling district, where some damage was done to portions of the Old National Road, which crosses the Ohio River at that point. Of course, the most serious troubles of all this year will be found in central and southern Ohio and Indiana, due to the heavy rains which fell in the vast areas drained by the Ohio, Scioto, Muskingum and Wabash, resulting in a flood of waters which made a record "rise" all the way from Pittsburgh to New Orleans, submerging parts of Wheeling, Marietta, Portsmouth, Cincinnati, Louisville, Cairo, Memphis and many other cities and towns.

Many important bridges were carried away throughout all this territory, especially in the vicinity of Dayton, Indianapolis and Hamilton; in many cases tourists this year will be obliged to take improvised ferries to reach these and other cities. At Lafayette, Ind., on the Indianapolis-Chicago route, one important bridge over the Wabash was washed out, but a new one will shortly be ready. At Logansport, all northbound travel must cross the Wabash at Eighteenth street; many other bridges were carried away, so that at this writing the nearest crossing east of Logansport is at Peru, and west at Delphi.

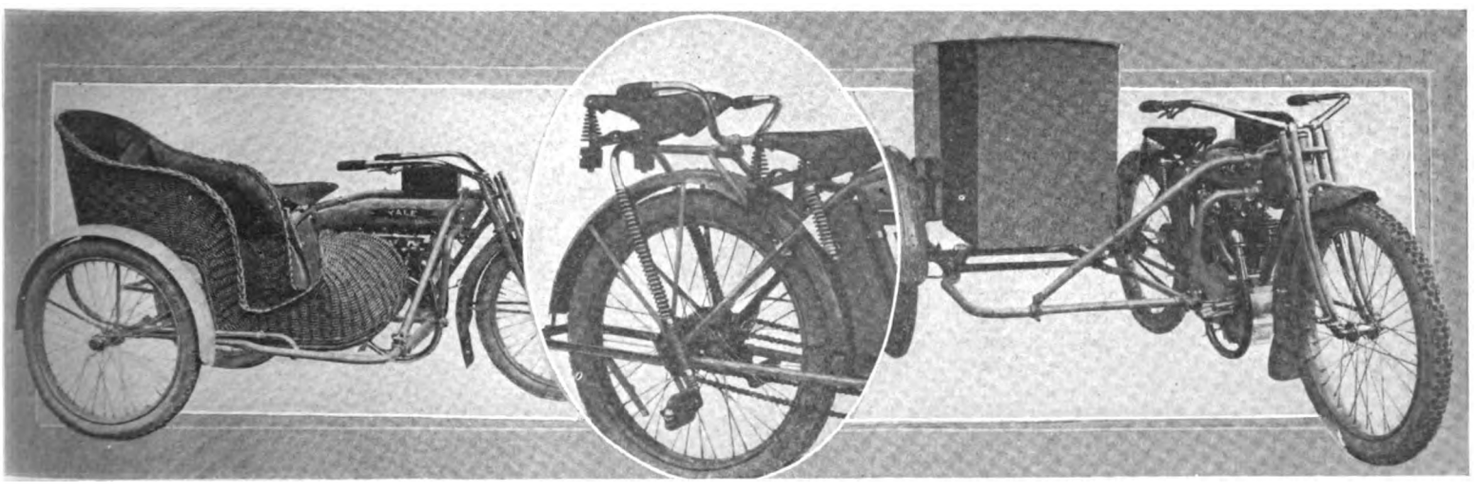
Ordinarily the western rivers are peaceful and quiet, and give no trouble; but when gorged with a sudden flood of waters, they carry everything before them. The writer remembers coming up over the roads from Peoria, Ill., to Chicago, three or four years ago, after floods almost but not quite as bad as those of this last spring. The down trip was made in dry weather and at good speed; but on the return trip the roads were deep with mud, and on approaching Ottawa, Ill., from the south, the bridge over the Illinois River was found to be carried away.

The experience in trying to cross this swollen stream on an improvised ferry is remembered with anything but pleasure, and the same sort of thing will be met generally by motorcyclists who plan trips in the Central West this year. For a good description of the effect of floods upon the western rivers, it is suggested to those interested to read Frank H. Spearman's "The Spider Water," which appeared in McClure's magazine several years ago, and can be found in any large reference library.

One result of the road changes due to these floods will be much less touring out of central and southern Ohio and Indiana than usual this year, and particularly less traveling on east and west routes through that territory. Those living in the affected territory, planning trips to eastern New York State and New England, will generally take the northern routes through Cleveland, Buffalo and Albany, rather than the lower lines through Columbus, Wheeling and Pittsburgh. Of course, most of the localities whose bridges have been washed away will arrange some temporary crossings, in the form of quickly constructed bridges or ferries, until new and more substantial structures can be erected. For this reason, while travel over the principal routes will naturally be greatly interfered with, probably none of them will be entirely closed.

Perhaps the worst individual effects of the floods will be felt by those who have garages located on the main routes in the flooded territory. It is well known that the business of many of these places comes principally from their location on through routes into and out of such cities as Dayton, Columbus, Indianapolis and Cincinnati, alongside or near by the steady stream of travel. In instances where the main thoroughfares are sure to be out of commission for months together, and improvised routes used instead, it is likely that the garages will lose, temporarily at least, a great part of their current business.

MEMBERS of the Marysville (Cal.) M. C. recently held a run to Colusa. The club is now making arrangements for a run to Sacramento at an early date.



FROM the busy factory of the Consolidated Mfg. Co. come the photographs which make up the accompanying lay-out. The first shows a Yale with sidecar, and the method of connecting the passenger attachment to the motorcycle is worthy of special attention. Note the sturdy mooring encircling the motorcycle frame just back of the steering-head; this feature permits of four-point suspension when a sidecar is fitted to the Yale. The picture in the center shows a sturdy and unusually resilient tandem attachment which bears the stamp of Yale workmanship, and the photograph at the right gives a view of the neat van that is being used to good effect by a number of enthusiasts who are adapting their Yales to commercial service. It is argued that this trio ought to meet all demands.

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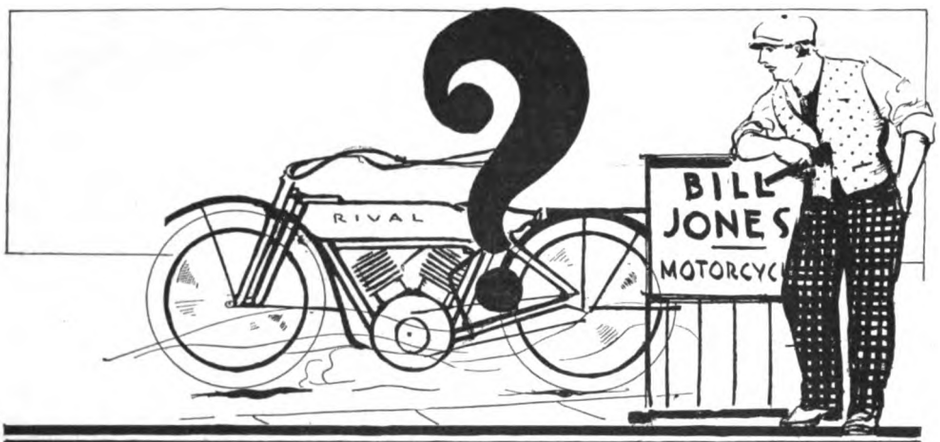


WHAT SHOULD JONES DO?

IF John Jones, a dealer, learns that Sam Smith is in the market for a motorcycle—through seeing him ride a demonstrating machine belonging to a competitor—is Jones justified in striving to interest Smith in the make of motorcycle he is handling, or should he leave the coast clear for the agent who first had dealings with the prospective buyer? In other words, does a prospect "belong" to the dealer who "discovers" him, or should any other agent in the city feel free to seek his patronage regardless of who started the ball rolling?

JONES ENTITLED TO A CHANCE

"JONES should certainly strive to interest the prospect in his make of machine, regardless of who started the ball rolling," writes a New York City dealer. "Competition is too keen these days for any dealer to expect to hold a prospect to himself; if he can do so, let's give him credit for diplomacy and salesmanship, but if Jones gets on the trail there is no reason, in my opinion, why he should feel backward about putting forth his best efforts to land the sale. From my point of view, Jones would be unnecessarily scrupulous if he passed up his opportunity, and what's more he would soon go out of business."

SPORTING SPIRIT WILL HELP

"IF BOTH Jones and the first dealer are possessed of a little true sporting spirit there should be no trouble," writes "A Marylander." "Let the prospect try out both machines, the one represented by the first dealer and that sold by Jones, and the problem will probably solve itself. Not long ago I sold a machine against strong competition because my model could climb a hill that balked the machine offered by my competitor. If Jones has a better machine than the first agent he is entitled to the sale, in my opinion, and unless he gets out after every prospect in his district he will not have a chance to demonstrate that his offering is the better one. Here's another point: If the first dealer has just what the purchaser wants, no other dealer will be able to take him away and sell him something else. If the prospect is not entirely satisfied, it is the duty of Jones or any other agent in the city to make an effort to please him. More luck to the Joneses! They keep things moving."

SALES RACE A "FREE-FOR-ALL"

"HOW is Jones to know whether the first dealer really has developed the prospect?" queries "An Indiana Veteran." Continuing, he expresses the opinion that Jones cannot be expected to take the first dealer's claims for granted, and that when the former sees a prospect on a competitor's demonstrating machine he is justified in believing that the race for the business is a "free-for-all." He points out that the conditions are likely to be reversed at any time, so that Jones will find himself in the place of the first dealer, and that in the long run open competition will give all the agents in a city an even chance for business.

LEAVING IT TO THE PROSPECT

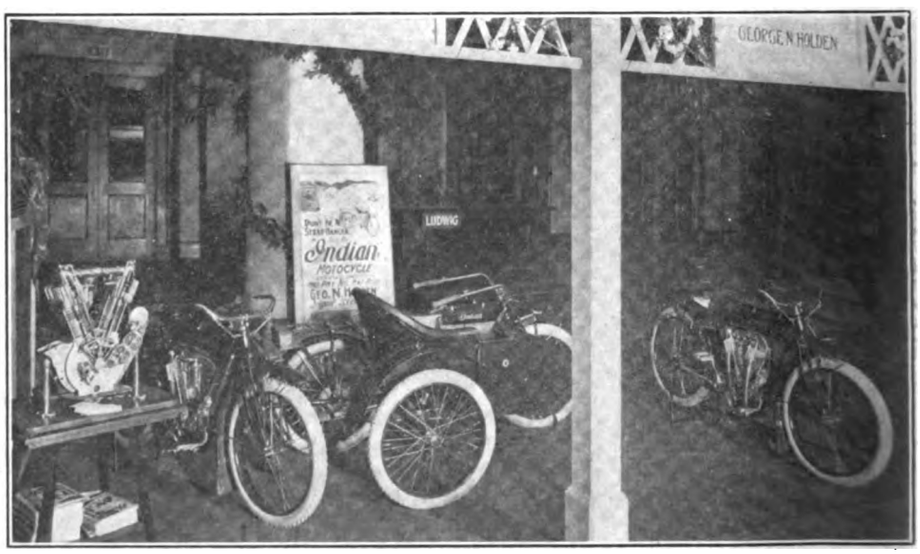
"A PENNSYLVANIA DEALER" writes as follows: "It appears to me that in nine cases out of ten the prospect will settle the problem himself. If he is not satisfied with the machine offered by the first dealer he will probably visit Jones or some other agent without being invited. How he is going to tell whether he is getting the most for his money if he visits only one dealer is a matter for his personal consideration. Our automobile friends draw no fine lines when dealing with a prospect. If one automobile dealer sees a prospect out in a rival's car today he will be around with his own car to take the prospective buyer out for a spin bright and early tomorrow. In short, I believe Jones should take his chance. It is up to the first dealer to beat Jones to the business; if he fails he must blame himself or the make of machine he is handling."

LEEWAY FOR THE FIRST DEALER

"I BELIEVE the first dealer should be given every consideration," writes an up-State New York agent, "for in many cases it will be found that he has given valuable time to developing the prospect. On the face of it, we can hardly say it is fair for a second dealer to step in when the tedious work is finished and reap the benefit of someone else's industry. Many a rider would not be in the ranks if some energetic dealer had not got on his trail and persuaded him to give the motorcycle a trial. If an agent who works along these lines is going to have his business taken away from him by Jones at the last minute, he will very soon decide that the motorcycle field is no place for him, and the trade will lose a good man. We need real boosters, men who go out and develop business, and unless the Joneses give them a fair chance they will become disgusted and quit."

AMONG THE MISSING

A BRAND new twin Harley-Davidson is reported stolen from the Harry Svensgaard Sales Corporation, of 471 Woodward avenue, Detroit, Mich. The machine was taken from the salesroom on the night of April 20. The motor number is 3818-E. Another twin Harley-Davidson, belonging to B. B. Pennington, of Detroit, engine No. 1443-E, is also reported missing.



INDIAN motorcycles were attractively displayed at the recent Commercial Travelers' Exhibition in Springfield, Mass., by George H. Holden, Springfield agent for Hendee products. As will be noted in the accompanying photograph he showed several of the 1913 models and an Indian sidecar in addition to a motor in section. He reports brisk sales.

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Big Miami Branch Factory in Indianapolis

Middletown Company Takes Over Factory Structure Vacated by Prest-O-Lite Company in Hoosier Capital and will Devote it to Production of Flying Merkel Motors on Elaborate Basis.

K. R. JACOBY, president and general manager of the Miami Cycle & Mfg. Co., Middletown, Ohio, announced this week that he had secured the Prest-O-Lite building in Indianapolis for an auxiliary factory to the already large plant located at Middletown.

While the announcement came as something of a surprise, it was not wholly unexpected, in view of the fact that the growth of The Miami Cycle & Mfg. Co. has been unusually rapid of late. Expansion naturally was a thing to be expected. The company only last January moved into its big new concrete and steel factory, the addition embracing some 55,000 extra square feet of floor space, but even with this additional elbow room it found that it did not have large enough venue for its operations.

The new factory which has been secured at Indianapolis is the plant just vacated by the Prest-O-Lite company, which has acquired a larger plant at the new city known as "Automobile," located near the motor speedway. It is located on South street, four blocks from the Claypool hotel, and consists of a three-story and basement building of reinforced concrete, measuring 250 by 65 feet.

In this new building the motors used in the Flying Merkel motorcycle will be built complete; also the two-speeds and band brakes. These will be the only items manufactured in the Indianapolis plant. In order to take care of this work President Jacoby has already let the contracts for $100,000 worth of machinery. Machinery now in the Middletown factory, which is used exclusively for the building of motors, will be transported to the Indianapolis factory, while the $100,000 purchase represents entirely new machinery, part of which will be used at Middletown and part at the company's branch in Indianapolis.

The new factory will employ 800 men, and C. S. Barkelew was engaged this week as mechanical engineer; he will have charge of the Indianapolis factory. The new plant will be ready for occupancy August 1, at which time also the Miami Cycle & Mfg. Co. will have 1914 models ready for shipment. In order that its production may attain a maximum standard, instead of laying off men during the dull months of July and August, as do most manufacturers, the Miami company will operate night and day through these months, working up material and complete machines so that all next season immediate deliveries can be made. To this end a large storehouse will be built at Middletown, and a stock of finished and crated machines kept on hand.

Another noteworthy feature, and one that positively will be carried out in every detail, has to do with the testing of motors, and the great care that is being taken in the production of the Flying Merkel. At the Indianapolis factory every motor will be block-tested before being shipped to Middletown. At the Middletown factory the complete machine will be assembled, and construction will start next month on a five-lap banked track, where all motors will be given a test for speed. An artificial hill also will be constructed, and every motor must attain a certain degree of efficiency before it will be passed by the final inspector. This five-lap track and the hill will be located in the present grounds of the Miami company at Middletown, and the track which will describe a perfect circle, will be covered by a corrugated iron roof, so that testing will be uninterrupted during any kind of weather.

The output of the company for 1914 will be 25,000 motorcycles. The company also is planning to double its production on Flying Merkel bicycles, Hudson bicycles, Racycles and Musselman coaster brakes. So far business in these lines has more than doubled over 1912, which latter year was, up until that time, the banner year in the company's history.

The advantages of an exclusive motor, two-speed hub and band brake factory at Indianapolis are readily apparent. Nothing but the most skilled labor can be employed for the proper manufacture of articles of this kind, and because of the high cost of living in Middletown, it is difficult to secure the same skilled labor that is possible in a larger city like Indianapolis. In Indianapolis the company will be able to secure the right kind of labor and the assurance that it will not experience any more labor trouble, of which it had a little flurry early this spring. The net result is that better motors can be produced on a more economical basis.

MIAMI DEPARTMENT HEADS

IN THE photographs reproduced below appear a number of department heads on the staff of the Miami Cycle and Mfg. Co., at its factory in Middletown. Factory Manager A. C. Bryan is found within the circle in the upper left-hand corner, and the next picture to the right shows Advertising Manager F. L. Valiant and Purchasing Agent Joseph Jeffcott, the latter at the telephone. In the circular picture at the right appears W. D. Witner, who is in charge of the Repair Department. The lower left-hand picture shows the Sales Department heads holding the daily conference, and the remaining photograph gives a view in the draughting room, where new Merkel ideas are transferred to paper.

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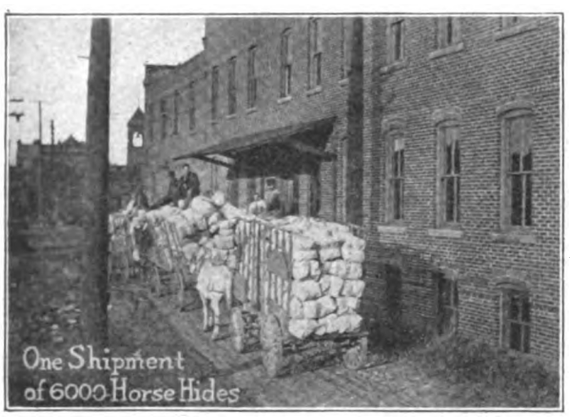
Making Grinnell Gloves to "Sell With a Bond"

How An Ideal Factory Location, Up-to-the-Minute Producing Methods and a True Spirit of Co-operation Enable the Morrison-Ricker Firm to Cover Its Products With Ironclad Guarantee

NO motorcyclist, even of limited experience, would think of making a road trip without a presentable pair of gloves, but despite the generally acknowledged need of suitable coverings for the hands on such outings comparatively few riders have any definite idea of the work involved in turning out a pair of really good gloves. Having this in mind, the writer welcomed an opportunity not long ago to make a trip through the up-to-the-minute glove factory of the Morrison-Ricker Mfg. Co., at Grinnell, Iowa.

On my arrival at the factory I was greeted by B. J. Ricker, a member of the firm, who personally escorted me through the different departments and explained in detail the interesting processes by which the raw material is


One Shipment of 6000 Horse Hides

transformed into the finished product. I was very favorably impressed with the general layout of the Morrison-Ricker factory. It stands back from the road a little and is not crowded by any other buildings. There is plenty of open space around it, so that every corner of the busy plant is bright and airy.

When I called attention to these conditions Mr. Ricker agreed that a more desirable location could hardly be obtained. "If we were called upon again to make a selection of a site," he said, "we could not improve upon this spot where we have been carrying on business for fifty-seven years. To the southwest is the principal hide-producing district of this country, so that we have comparatively low freight rates on raw material, and our location in the center of the great Middle West means that we can guarantee quick and economical deliveries to every state in the Union."

Mr. Ricker led me through the spacious general offices where clerks were busily engaged in classifying a flood of morning orders and handling correspondence. Then we proceeded to the tannery, a three-story building in which great piles of hides were awaiting the tanning process.

"Our policy has been to buy in large quantities," said Mr. Ricker, "for in this way we obtain rock-bottom rates. Accordingly we are enabled to put the highest grades of leather into our gloves at the lowest possible prices." As we made the rounds we saw the hides being washed in great revolving drums, "put in soak" as it is technically expressed. Then they are run through the "fleshing" machine which removes the hair and scrapes the hides clean. The few hairs that are missed are removed by knife in what is known as the "fine hairing" process. Finally we stepped into a large room where huge paddle-wheels were stirring hundreds of hides about in the tanning liquor, and Mr. Ricker explained that this system was used to insure more even tannage.

From this department we went to the rooms where the hides are dried after the tanning process by hot air blasts heated by steam. After passing through this department the skins are stiff and crusty, and they are then given another treatment which leaves them very soft and pliable. Next comes the measuring of the hides on standard machines which tell accurately the number of square feet in each piece of leather. When the skins leave these machines they are ready for the cutting rooms, and here the leather first takes on the semblance of gloves. This department is equipped with every mechanical device to facilitate the manufacturing process and keep down expense without detracting from quality.

In the long sewing room we found many bright young women engaged in operating electrically-driven machines which sew the parts together into gloves. A cleaner and more cheery place could hardly be imagined, and it struck me that the girl workers were perfectly satisfied with their surroundings. What's more they seemed to be really interested in the work they were turning out. Such conditions always insure quality in a product. The "laying off" or finishing room was visited next. Here the gloves are pressed and the seams smoothed.

Mr. Ricker called my attention particularly to the inspection department. The company spends thousands of dollars yearly in making certain that each pair of Grinnell gloves is perfect before it is packed, and the thoroughness with which this branch of the work is carried through impressed me deeply. After being inspected the gloves are banded and boxed and sent to the general stock-room in the warehouse, a three-story building, each floor of which contains over 6,000 square feet of space.

North Sewing Table

This building is devoted almost entirely to storage and shipping. The firm aims to fill every order the day it is received, and there

Ready for Packing

is room to have 1,500 orders under way at one time.

After this we inspected the packing department. Shipping cases in "knock-down" condition are bought in carload lots and made up in the box department as they are required. The packers are very carefully trained and the company's loss in shipping amounts to little or nothing.

As we walked back to the main offices Mr. Ricker spoke of the general policy of the company. "It is our aim," he said, "to keep the factory bright and clean and up-to-date in every way. We believe that much of our success has been due to the loyalty of our workers, who take a real interest in our progress. We pay them wages commensurate with their ability. We provide the most satisfactory working conditions and each year at Christmas the staff shares in our profits. Our people are proud to be making Grinnell gloves and we are mighty glad to have them feel that way. We are trying to give the buyer the best possible product, and our employees put their best into every piece of work turned out."

As I was leaving the factory Mr. Ricker gave me a pair of street gloves with the request that I subject them to all the tests possible and then report on the manner in which they bore the strain. I have worn these gloves for several months past and they have had the hardest kind of usage, but they are as good today and as attractive in appearance as they were when I put them on in Mr. Ricker's office. I advise motorcyclists who find themselves in the vicinity of Grinnell to visit the Morrison-Ricker factory and learn how gloves are made to be sold "with a bond." It's worth while.

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Eighth Harley-Davidson Building Under Way

New Six Story Structure Containing 40,320 Square Feet of Floor Space Will Replace Machine Shop With Floor Area of 5,760 Feet That Was Considered Adequate in 1909

WORK is now being rushed on the eighth factory building at the Harley-Davidson plant in Milwaukee, and the plans for the latest addition indicate that it will be fully deserving of a place with the other modern structures that have sprung up with startling persistency of late to meet the heavy demands that are being made upon the company. The new building is to be of reinforced concrete construction, and of the same general design as the big addition which was completed last Fall.

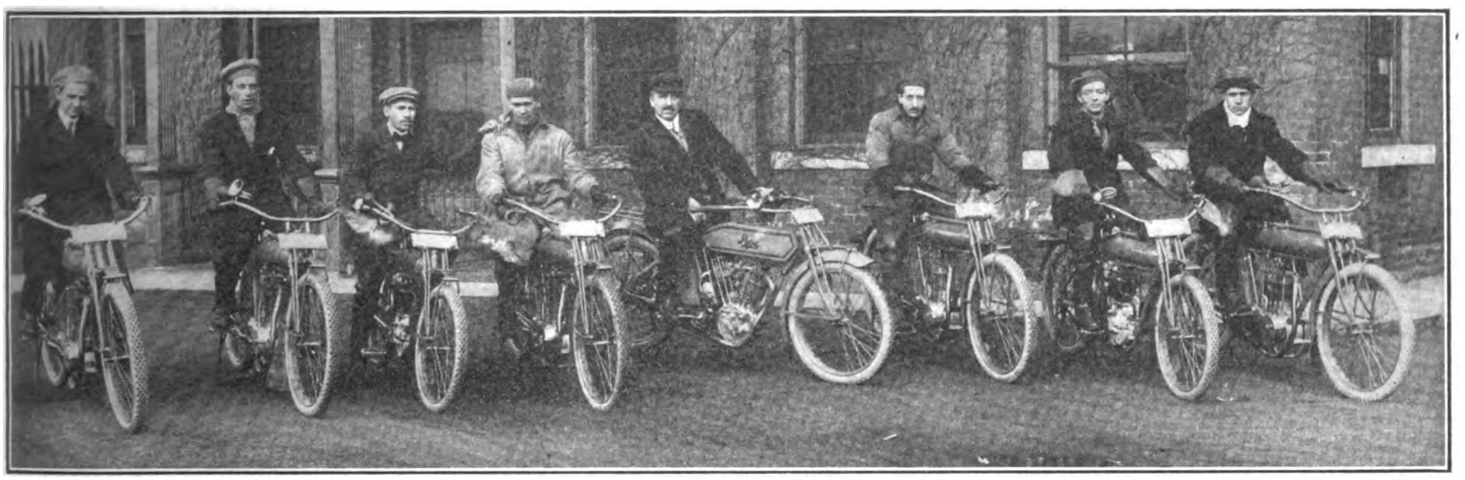
The building, which is to be ready for occupancy by the middle of August, will contain 40,320 square feet of floor space, replacing the saw-tooth machine shop with 5,760 square feet of floor space which was built late in 1909. The new building will give an increase of 34,560 square feet floor area. It will have a frontage of 90 feet on Chestnut street and a depth of 64 feet. The depth is being limited to 64 feet to obtain maximum light and air for all of the departments that will be located in the structure. The new addition is to be six stories high with a 12-foot basement.

This latest extension to the plant of the Harley-Davidson company is indicative of the rapid growth of the motorcycle industry. In the fall of 1909 the company erected a saw-tooth machine shop, one story high, in accordance with what was then considered the most modern factory architecture. It was believed then that the building would be sufficient for many years to come. Three and one-half years have passed and it has been found that the perfect factory of 1909 is entirely inadequate for the factory needs of 1913. Accordingly, plans were perfected to tear down the 1909 building and make room for another modern factory addition.

In other words, the development of the motorcycle industry has been so great during the past three and one-half years that the company feels warranted in razing what was considered a perfect building in 1909 to make room for a new structure. No stronger proof could be given of manufacturing activity.

The razing of the 1909 saw-tooth machine shop was started on April 17 and was completed on April 23. The excavating contractor estimates that it will require about two weeks to complete his share of the work, and it is expected that the first floor will be completed and ready for use by the middle of June, and that the remaining floors will be built during the succeeding two months so that the company will have the use of the entire building by the middle of August.

The construction of this latest factory addition will not interfere in any way with the factory routine. A runway has been constructed to connect factories Nos. 5 and 6, so that material can be handled expeditiously around the building in the course of construction. The new building is going up without affecting any of the forty-three departments.



POPE FLYING SQUAD

AT a recent gathering of the Pope salesmen at Hartford, where the company's headquarters is located, a number of the boys organized themselves into the "Pope Flying Squad." The squad is shown in the accompanying photograph, ready for the road.

SAMSON ELECTRIC HORN

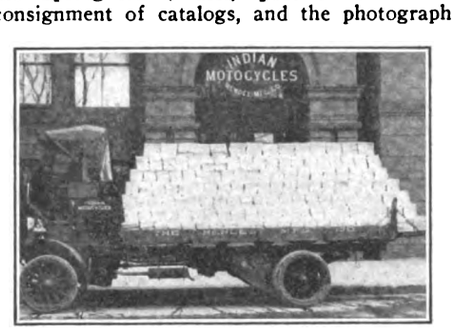
HAVING demonstrated its efficiency and economy throughout two seasons, the Samson motorcycle horn, produced by the American Electric Company, of State and Sixty-fourth streets, Chicago, is now coming into favor with riders who desire a compact electrical warning device. The Samson operates from two dry batteries or a tube of three Tungsten cartridge batteries, and a case for holding the latter may be obtained at slight additional cost. The American Electric Company produces the well-known Samson electric horn for automobiles and the motorcycle product is turned out along the same general lines, but with a few minor changes to adapt it to motorcycle requirements. The horn is substantially made, pleasing in appearance and capable of producing a warning tone that will meet all the requirements of the road.

NEW ENGLAND AGENT BUSY

REPORTS from W. J. Walker & Company, of Danvers, Mass., New England distributors of Harley-Davidson motorcycles, show that the firm has been selling from 10 to 20 machines per week for the past few weeks.

A LOAD OF HENDEE CATALOGS

NOT long ago the Hendee Mfg. Co. deluged the Springfield (Mass.) post office with a consignment of catalogs, and the photograph



shows the motor truck that carried the load, ready for its trip from the Wigwam. The post office officials threw up their hands when the cargo of catalogs arrived.

UNPRECEDENTED TIRE DEMAND

TIRE manufacturers this year are confronted with the problem of taking care of the biggest demand for tires of all descriptions that ever has been known in the history of the industry. They are figuring on equipping 250,000 motorcycles, not to mention the tremendous automobile and motor truck business, which is figured at more than 5,000,000. J. D. Anderson, general sales manager of the United States Tire Company, in a recent interview, stated that although the spring season was barely started, there is every indication that the volume of tire business this year will exceed by a great margin anything ever known before, and that manufacturers will be pressed to the utmost. Mr. Anderson predicted this demand some time ago and consequently all four of the United States company's factories have been running night and day. Extensions have also been made and new equipment installed and the company has brought its output to a point where it can meet all demands.

F. H. MARTIN has been appointed Eastern sales manager for the Stewart-Warner Speedometer Corporation, of Chicago, with headquarters in New York.

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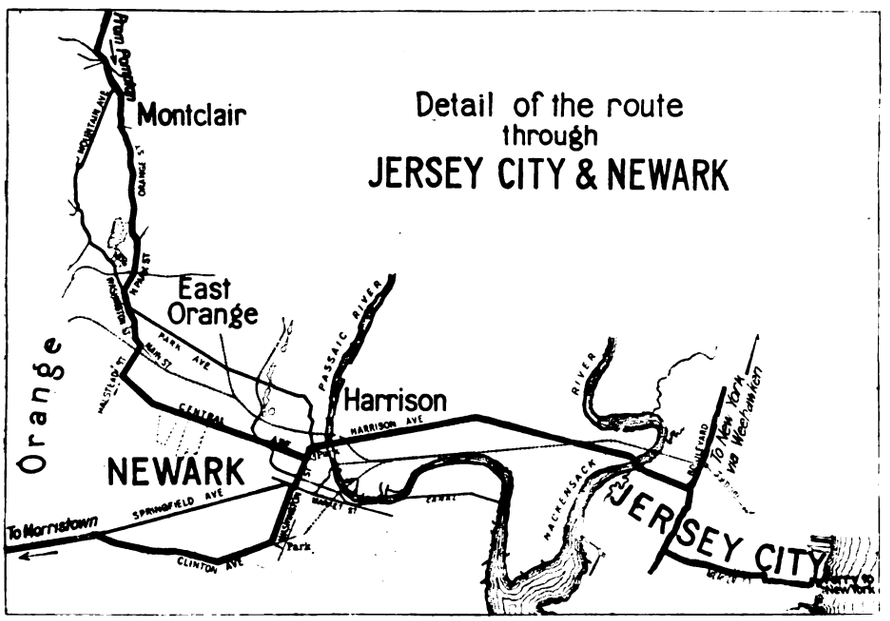
At the Threshold of Jersey's Highways

IN the April 17 issue there appeared an article on "Mapping an All-New Jersey Endurance Run," from which the accompanying map was omitted for lack of space. It is printed here for the reference of the many motorcyclists who travel between New York and Newark or beyond; and shows at a glance the essential details between the river front and points immediately north or west of Newark. It will be noted that the Hudson County Boulevard, at the western edge of Jersey City, is the common meeting point for the exit from Manhattan via the Forty-second street ferry and Weehawken, and also for the one via the Pennsylvania Railroad down-town ferries. Formerly the latter were used more than the line through Weehawken; but on account of the congestion of traffic in the lower part of the city, a majority of the travel now prefers the slightly longer but less interrupted route via the West Forty-second street ferry and Weehawken, joining the route out from Jersey City at a point about a half-mile east of the Hackensack River.

Starting west from the Hudson County Boulevard, this route crosses the Hackensack River and a long stretch of meadows alongside the Newark Turnpike, although gradually there is being developed a better way over what was formerly the old Plank road. The latter is used now to a limited extent, but not generally, because the work is not complete, and its entrance into Newark is far from agreeable.

The turnpike becomes Harrison avenue in passing through Harrison, and then you cross the Passaic River into Bridge street, Newark, at the northern edge of Washington Park. Here, as the map shows, the travel from Jersey City divides into two main streams, one using Washington street (or else Broad street, not shown on the map), into Clinton avenue, from which connections are made west to Morristown, or south toward Trenton and Philadelphia.

Next in importance is the group of routes which begins by turning right from Washington street at the farther edge of the park into Central avenue, with important connections either through East Orange and Montclair, or more directly west over the Orange Mountains to Morristown. The route referred to in the "All-New Jersey Endurance Run" followed Washington street and Clinton avenue to Morristown, returning through Pompton by the way of Montclair and East Orange to Newark; but readers of MOTORCYCLE ILLUSTRATED will find this map of useful reference on many occasions in traveling between Jersey City and Newark.



Newsy Paragraphs Concerning Baltimoreans

BALTIMORE, MD., April 27. The run of the Maryland M. C. to Annapolis on Sunday, April 20, was one of the best ever held by the club. Over 100 riders made the journey over the new boulevard, a large number of them carrying ladies along on their tandem seats. Rain spoiled the blind run called by Capt. Johnson for last Sunday.

A big state meet is being planned by F. A. M. Commissioner William Wood for July 4. A number of towns located near race tracks have put in bids for the meet, which will include a big mass meeting, touring contests and speed championships on the track.

The two-wheeler has proved a great boom to Messrs. Heimbach and Rochester, inspectors for the Baltimore Street Cleaning Department. The bad weather recently did not interfere with their work and they were enabled to accomplish more by using their motorcycles than before in using horses to get about the city.

The Indian M. C. has just come into existence at Annapolis, with George Davis as its father. The boys down the line are very enthusiastic riders and are always out in force to meet the local boys whenever they run down to the capital.

W. E. Baker, of New Windsor, is performing some stunts with his new two-speed Indian, only recently pulling a 20 h. runabout out of a mud-hole.

Robert L. Butler, a veteran motorcyclist, will penetrate into the wilds of West Virginia this summer on his vacation instead of traversing the beaten paths of travel in New Jersey.

Several students of the Maryland University are planning a long trip on their two-wheelers for this summer after school has closed.

Howard A. French & Co. have just placed an order for three more carloads of Indians, making six since February. French is finding the demand enormous and can hardly keep up with it. All the other dealers are equally rushed.

Baltimore Council No. 1, Jr. O. U. A. M., plans to purchase four motorcycles for the use of the relief committee.

A joint run of the Maryland M. C. and the Washington M. C. will be held on May 4, with the probable destination Ridgeville. Sidecars and tandems promise to be conspicuous on this run, with over 200 riders in attendance.

Determined to break up speeding on the part of motorcyclists, the Maryland M. C. has joined hands with the Automobile Club of Maryland in a war on the speed bugs. They are becoming a nuisance in this section and an effort will now be made to stop them from beating it on the city roads and in the country.

One of the contestants in the annual spring tour will be Chic Thomas, the retired champion of Maryland. Chic promises to give a good account of himself as usual.

Senator Casper French, who has been laid up with a sprained ankle, is out again and will be on the joint run next Sunday, making the trip in a sidecar with Fred Hippler as the pilot.

Unable to guide his motorcycle owing to a recent accident, Steve Shipley, the champion roller skater, has employed a chauffeur to take him out on his outings, he riding tandem.

G. & K. SALESMEN MEET

Annual Gathering of Graton & Knight Boosters Is Featured by Presence of Founder of the Business.

IN accordance with its policy adopted a number of years ago, the Graton & Knight Manufacturing Co., of Worcester, Mass., the well-known oak leather tanner and belt-maker, recently held a salesmen's convention at its main factory in Worcester. This convention was attended by the company's salesmen from all parts of the country, and the various sessions were devoted to an inspection of the factory and to a study of methods of manufacture, as well as to the sale and application of the company's products.

At the close of the convention a banquet was served at which more than 100 officers, salesmen and other employees were present. A feature of this year's meeting which was especially inspiring to those in attendance was the presence of Henry C. Graton, founder of the business. To a very large extent the phenomenal growth of the business from a small belt shop in 1851 to a plant that is one of the largest of its kind in the world is to be attributed to the sagacity and wisdom of Mr. Graton and his early associates, and to the persistent adherence of the firm to the policy early adopted of endeavoring to meet the steadily increasing demands for the most serviceable leather belting.

MOTORCYCLISTS of Louisville, Ky., were the guests of Ray Brothers, 308 West Jefferson street, agents for the Yale, at a banquet given on April 24 at the Old Inn.

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Combination of Thor Two-Speed and Brake

IN occupying its new factory building which was recently leased in Chicago, the Aurora Automatic Machinery Co. will give special attention to departmentizing the work, and it is announced that sections will be set aside for motorcycles, motors, motorcycle coaster brakes, bicycle coaster brakes and hubs. It is explained that the special department for coaster hubs is necessitated by the decision of the company to market for 1914 the Thor two-speed, complete with the motorcycle coaster brake. It is argued that this arrangement will give the purchaser maximum satisfaction and that the combination of the two well-known features will fill a wide demand.

The Thor coaster brake has met all the requirements of hard service for the last thirteen years, and the improved type which the company will be ready to place on the market in the near future promises to add still further to this reputation. The two-speed device is now fitted on 70 per cent. of the Thor machines, and there is no doubt that this fitment, combined with the new brake, will quickly justify the company in setting aside a special department for its production.

The patented Thor two-speed is notable for its compactness, as well as for its original design and workmanship and the positive control and lock devices which insure perfect operation at either high or low speed. The company reports that this product has given uniform satisfaction, and that the demand for Thor two-speeds has exceeded all expectations. Of late the company has been approached by several manufacturers with the suggestion that the two-speed device and coaster brake be furnished together.

FEW CLEAN SCORES AT SAVANNAH

SAVANNAH, GA., April 27.—The double reliability trial of the Savannah Motorcycle Club proved even more interesting than had been expected, and the returns show that fifteen of the nineteen starters in the 300-mile event finished the grind, while only four of the entrants in the 200-mile division were in their saddles at the finish. The schedule for the longer trial covered Saturday and Sunday, while the 200-mile run was confined to Sunday.

There were no accidents worthy the name during the trials, although several of the boys figured in spills while they were trying to make up lost time. Just as the 300-milers were about to start on Saturday there was a heavy hailstorm which lasted for half an hour. The riders who sought shelter were penalized five points each.

In the three-hundred mile event W. C. Everett, riding a 5 h. p. Harley-Davidson finished with a perfect score. G. F. Balmer, with a single Harley-Davidson, and L. G. Buckner, mounted on a single Indian, tied for second place. John Balmer, the Henderson rider, and Archie Raven, on a Harley-Davidson, broke even for third place, and Frank Laird took fourth place on his Excelsior.

There were no perfect scores in the two-hundred mile contest. W. A. McIntyre took first honors with O. A. Meyer second and W. C. Carraway third. McIntyre and Meyer rode Excelsior machines and Carraway rode an Indian.

RUN TO BUFFALO

TWO of the most important events scheduled by the Indian M. C., of Cleveland, Ohio, for the summer are runs to Buffalo, N. Y., and to Cedar Point. The run to Buffalo will be an event of the near future and will mark the official opening of the club's touring season. On this run the riders will be entertained by both the Buffalo and Rochester clubs.

IMPROVING MAINE ROADS

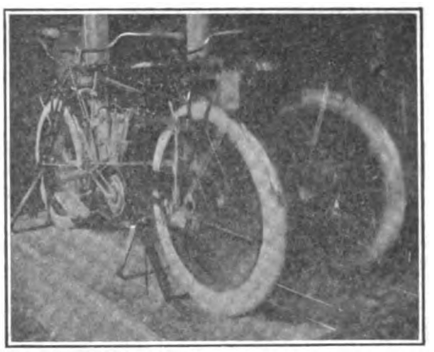
DESPITE the fact that the roads out of Portland, Me., are in bad condition, making it impossible to ride with any degree of comfort, the dealers of the city report a lively interest in the 1913 models. It is reported that the road between Portland and Portsmouth, N. H., is being improved and will be in good shape before the first of June. This is on the popular line of travel between Boston and Portland, and will encourage motorcycle travel in these parts.

OVER WASHINGTON-BALTIMORE PIKE

ONE of the most successful runs of the National Capital Motorcycle Club was held on Sunday, April 20. More than sixty riders were lined up at the clubhouse for the start. Proceeding out Bladensburg road, the procession was joined by ten Indian riders from the Washington Motocycle club and later by a squad of thirty Flying Merkel riders, headed by Harry Seamark. The course was over the new Washington-Baltimore Boulevard to the latter city, where a dinner was served. Many improvements have been made on this road within the past year and the entire distance of more than forty miles is in fine condition, with the exception of a fifty-yard stretch around the curve at Bladensburg. Riders contemplating using this pike are warned against speed traps.

AN UNUSUAL DEMONSTRATION

AT A glance it might be supposed that the accompanying picture was intended simply as a demonstration of poor photography, but this is far from being the case. As a matter of fact it is a fairly good illustration of an unusual test to which George H. Maslen, of Philadelphia, Pa., recently subjected two Indian machines at his motorcycle headquarters. The machine at the left is a spring-frame model, while the one at the right is of the rigid-frame type. With the former the vibration was so



slight that an almost perfect photograph of it was obtained, but the rigid-frame mount, as will be noted, gave the camera little more than a blur to record. Maslen states that the demonstration aroused much interest in his district.

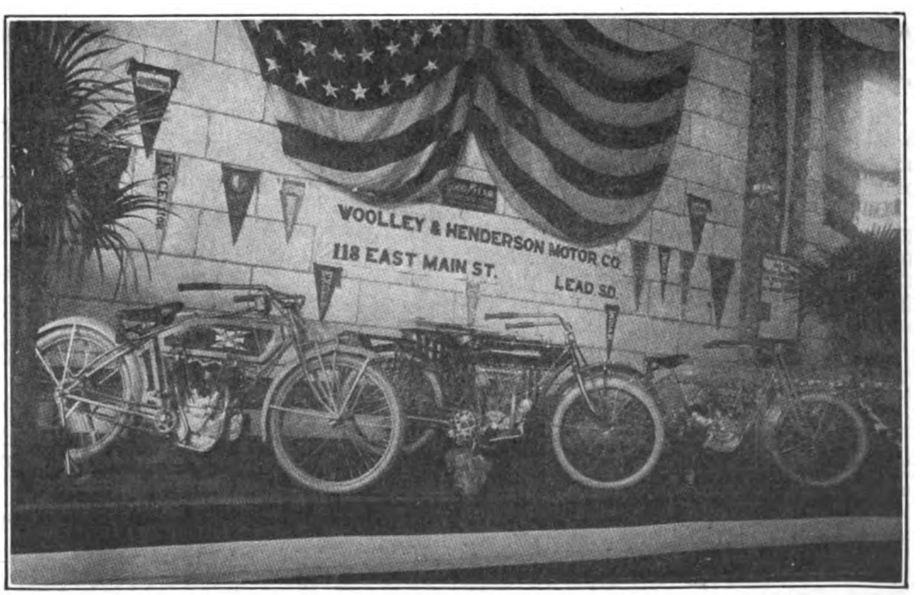
PACIFIC RACING ASSOCIATION

HAVING sub-leased the Meadows one-mile track, near Seattle, Wash., the Pacific Motorcycle Racing Association will hold a series of races throughout the summer. "The Motorcycle Inaugural" will be held on May 11, and it is planned to run six events on every racing day. The Portus Baxter trophy, a handsome gold watch, and $200 in cash will be awarded.

MOTORCYCLES AT DEADWOOD

SEVERAL motorcycle dealers were represented by attractive displays at the show recently held in Deadwood, S. D., one of the most comprehensive being that of the Woolley & Henderson Motor Co., of Lead, which is shown in the accompanying photograph. This firm handles the Indian, Excelsior and Harley-Davidson lines. The show was the first of its kind to be held in the western half of South Dakota and was well patronized by both riders and dealers.

The new Yale models were shown by P. Schonberger, of Deadwood; the Flying Merkel line by G. Edgerton, also of Deadwood, and the Pope by the Van Brunt Auto Supply Co., of Sioux Falls. Although no sales of motorcycles were made at the show all the dealers lined up prospects and the outlook for business was considered very encouraging.



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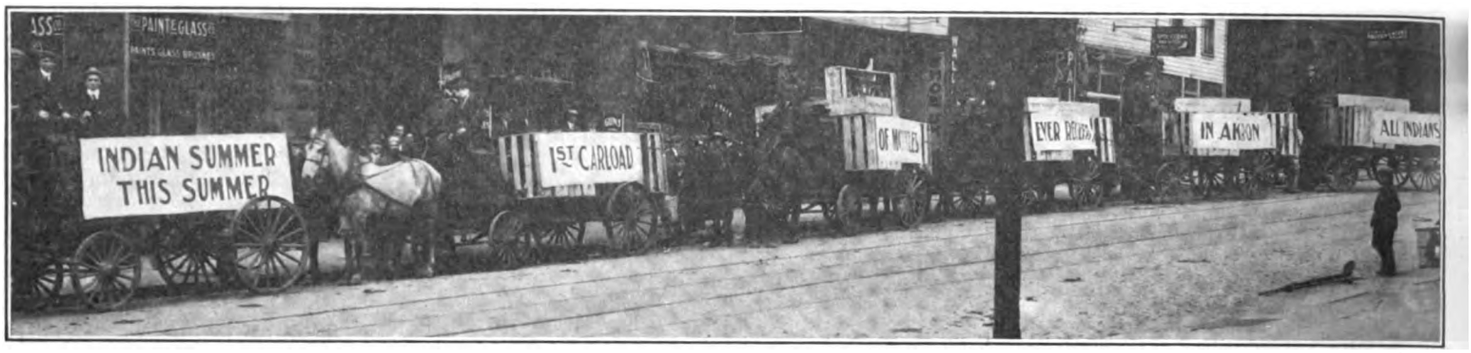

FIRST CARLOAD IN AKRON

BY WAY of celebrating the arrival of the first carload of motorcycles ever received in Akron, Ohio, the Buckeye Motor & Cycle Company, agents for the Indian and dealers in a complete line of sporting goods, hired a number of trucks and paraded through the town. The accompanying photograph shows the line-up of trucks; the first contains a band and the others the shipment of machines. H. J. Tucker, of the Buckeye company, states that as an advertising stunt this program was a great success as on the following day he received a number of requests for catalogs. The company conducts a large jobbing and retail business and issues a 48-page catalog.

WHAT THE MAGNETO DOES

"A RECENT internal combustion research proved that it takes 1/1000 of a second to fill the cylinder of a racing motorcycle with gas," said A. H. Bartsch, of the Bosch Magneto Company, in a recent interview, "and less time to fire the charge. This being so it surely proves what a wonderful machine the magneto is to be able to generate current so rapidly and so efficiently as to fire the complete charge of gas in less than 1/1000 of a second"

ATTRACTIVE NEW CATALOG

WITHIN the last few weeks no less than 50,000 motorcyclists throughout the country have received copies of the new catalog of the Motorcycle Co-operative Company, of Detroit, Mich. The catalog is illustrative of the company's extensive line of accessories and will be found helpful in the selection of general equipment for the motorcycle. The company recently moved into its new quarters in the Motorcycle Building on Automobile Row, Detroit.

Motorcycles Score Hit at Racine's First Show

MOTORCYCLE dealers of Racine, Wis., are elated over the results of the first automobile and motorcycle show held there, which closed Saturday night, April 19. The attendance on the closing night was more than 2,000, and on Friday there were about 1,500 paid admissions.

James C. Nelson, agent for the Eagle and M. M., displayed two machines. The 9 h. Eagle, equipped with Solar headlight, Prest-O-Lite tank, and a Standard front-wheel-drive speedometer, was the only fully-equipped machine on exhibition and was an object of much interest.

In addition to showing two twin Indians, Christiansen Brothers displayed a line of bicycles and tires. One of the busiest booths was that of Jonas & Prostenick, who displayed a line of Pope motorcycles and bicycles. The Pope and Eagle exhibits included engines in sections to give the uninitiated an opportunity to inspect the inside workings of the motor.

Two of the Dayton twins with the Spacke De Luxe motors, as well as a number of Dayton bicycles, were featured at the booth of Dayton Cycle Company, of which R. W. Hanson is proprietor. Three of the 1913 model Thors were displayed at the booth of Pederson & Fox, one being fitted with a two-speed gear. Mr. Pederson reports that a two-speed Thor has been sold to the Racine police department.

The Henderson and De Luxe machines were attractively displayed at the stand of the Wadewitz Machine Company, under the management of Mr. Sorenson. L. R. Rice, of the L. R. Rice Cycle Company, was kept busy explaining the merits of the 1913 Excelsior. There were four models on exhibition as well as a line of accessories and a number of bicycles at this booth.

ROCKFORD'S SUMMER SCHEDULE

AT a recent meeting of the Rockford (Ill.) M. C., the list of events planned for the summer was announced. The program includes a couple of parades, race meets, hill-climbs and endurance runs. Seventy-five members of the club have expressed their intention of participating in the parade, which will be held during the festival and home-coming week, from June 3 to 8. Immediately following the festival week the club has arranged for a couple of race meets to be held at the old driving park. In all there will be seven race meets during the summer. It has not been decided just how many hill-climbs to hold, but the committee in charge have been at work for some time selecting suitable hills. The endurance runs will be held to the following places: Chicago, Aurora, Elgin and Madison. The dates for these runs have not been set.

NOTES FROM COLUMBUS

COLUMBUS, OHIO.—Burglars entered the motorcycle store of L. P. Birkenbach, of this city, recently and stole supplies to the value of $150. Birkenbach is distributor for the Thor in Central Ohio.

The Warner automobile bill was passed by both Houses of the Ohio legislature before the recent adjournment. It provides that all automobiles, as well as motorcycles, used on the public highways in the state will be required to carry a state license. The yearly fee for the motorcycle is set at $3. The law takes effect January 1, 1914.

A movement is being started in Columbus for the revival of board track racing on the local motordrome which is now in the hands of receivers.

NEW CLEVELAND AGENTS

CLEVELAND, OHIO.—A new motorcycle agency has been opened in this city by J. C. Storer. His store is located at 1711 Crawford road. He will have the agency for the Black Hawk in Cleveland and eight surrounding counties, and also a sub-agency for the Flying Merkel. O. K. Snyder, of Cleveland, will have charge of the sales department.

The J. L. & W. Motorcycle Company, a new arrival in the Cleveland field, has contracted to handle the A. M. C. J. L. Moritz is manager of the new company, with headquarters at 6814 Detroit avenue. The company will also handle Greyhound sidecars and a full line of accessories.

Denverites Clamoring for New Models

BUSINESS in the Mile-High City, according to late reports, is in an excellent way and motorcycle dealers of this city find little time for anything else.

Mr. Pettee, of the Pettee Cycle Company, agent for the Pope, is a veteran bicycle dealer and devotes a good part of his energy to that end of the business, but he has found time to dispose of thirty 1913 Pope motorcycles and is still lining up prospects.

Manager Crocker, of the Hendee branch, reports a big demand for the two-speed machines. He is now selling from his eighth carload.

Harry Ott, city distributor for the Excelsior, and Ed. Meade, State distributor, are both enthusiastic over the outlook. Mr. Ott already has 92 Excelsiors on the streets of Denver, while Meade has disposed of 200 throughout the State. Mr. Ott is also handling the Henderson line and reports a number of sales of the four-cylinder machines.

Walter Whiting, agent for the Harley-Davidson, has sold 95 machines.

Williams & Phelps, distributors for the Thor, report 32 sales for the city, but could not give any figures as to the sales in the other parts of the State, as the factory ships direct to sub-agents. Mr. Williams stated that most of the orders called for two-speed machines.

O. P. Daenitz, agent for the Flying Merkel, has been somewhat handicapped of late owing to the delay in deliveries caused by the flood. He has a number of orders waiting to be filled.

Rohrer & Newell, who handle the Yale line, are not located with the other dealers on Automobile Row, but have headquarters nine blocks south, where they say business is brisk. Leo Scott, State distributor for the Yale, claims that his sales will reach the 300 mark before the end of the season.

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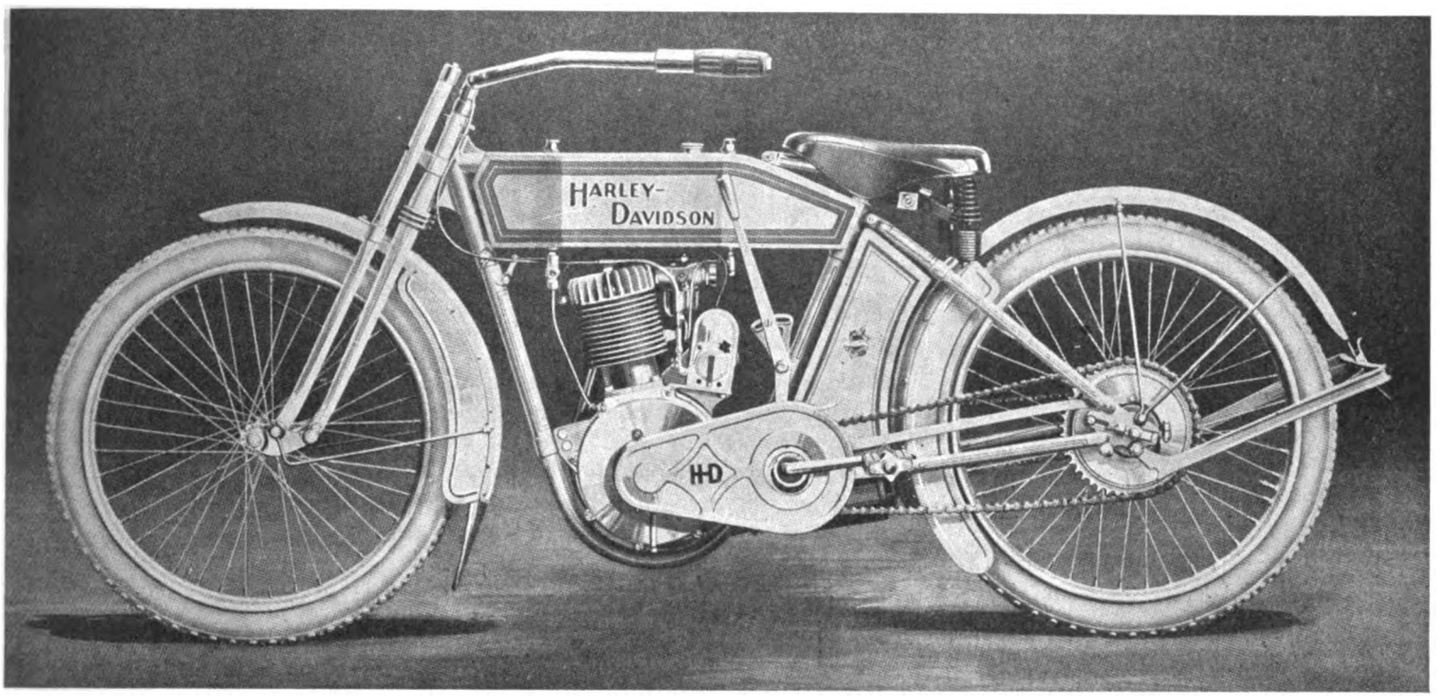

40 Miles an Hour in 190 Feet from a Standing Start

The Harley-Davidson "5-35" will do this. No other single can.

It took the Harley-Davidson engineers nearly two years to develop this quick "pick-up," a sure sign of *a world of reserve power.*

The Harley-Davidson "5-35" is positively in a class by itself for speed, power and flexibility, proved by the fact that Harley-Davidson dealers are selling these machines to riders who formerly rode twins of other makes.

Harley-Davidson "flexibility" is exclusive with the Harley-Davidson.

Harley-Davidson Motor Company

Producers of High-Grade Motorcycles for Eleven Years
Largest Manufacturers of Single Cylinder Motorcycles in the World

411 C Street **Milwaukee, Wisconsin**

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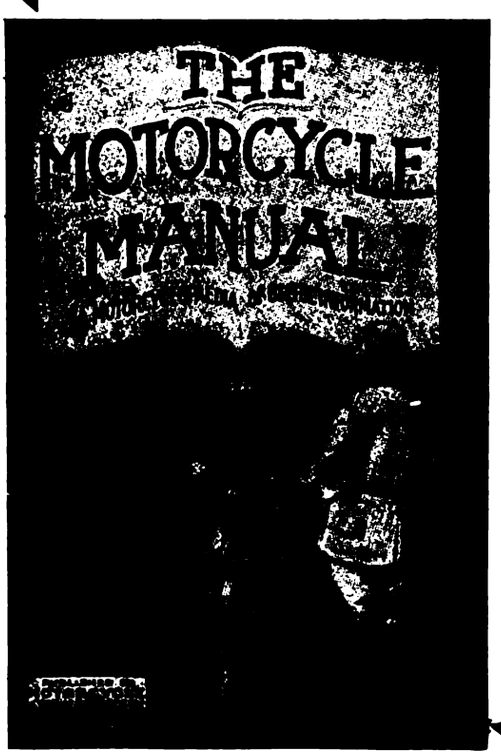
There are times when Ignorance is Not Bliss

Let us enumerate:

For instance, on a sweltering day while you're happily breezing along, your motor suddenly develops the "fidgets." You get off and investigate. If you know all about a motor's internal construction and are "wised up" on how to handle a cranky magneto, and know all there is to know about the carbureter—you will EVENTUALLY locate the trouble. But if you don't—you're STUCK!

Then is the time to dig into your tool box and consult your tried and true friend

The Motorcycle Manual



Its trouble chart tells how to locate the trouble and REMEDY IT. It tells all there is to tell about every part of your motorcycle. It gives concise information regarding license laws in every State in the Union. It gives the official racing records. It explains horsepower and other mechanical formulae; it is a handy motorcycle trade directory; it enlightens you as to the F. A. M.—who's who and what he is doing—it—oh, well!—do you think you can afford to be without it?

And it costs a quarter. We don't have to tell you what to do with the coupon in the corner.

Motorcycle Publishing Co.
51 Chambers Street, New York

I enclose 25c. for a paper-bound copy of THE MOTORCYCLE MANUAL. 50c. for a cloth-bound copy of THE MOTOR-

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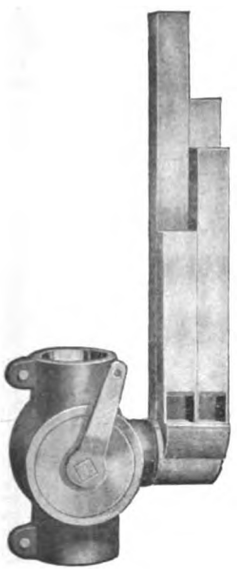
Trinity Chimes Exhaust Horn

"YOU CAN HEAR IT EVERYWHERE!"



The only signal that will warn pedestrians in the proper manner. Absolutely self-cleaning. Easiest horn to attach. Out of the way and cannot jar off. Its classy appearance is a subject of interest to the motorcyclist.

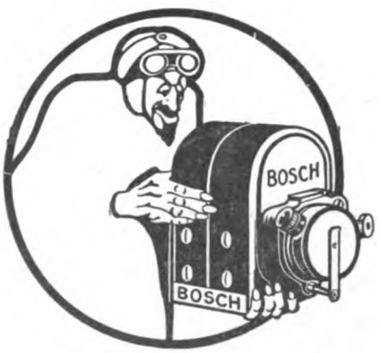
To Dealers

Let us send you a "Trinity Chimes" horn today. It is the biggest seller in the accessory line. It is only necessary for a rider to hear it once and the horn is sold. It is a "live wire" that makes money for the dealer.

We are offering a **special discount** to dealers and jobbers who answer this adv. The offer is void after June 1st.

Write at once.

COMING MANUFACTURING CO. (Dept. L.)
(Successors to New Era Mfg. Co.)
Railway Exchange, Chicago, Ill.



BOSCH

MAGNETO AND PLUGS

INSURE yourself satisfaction, efficiency and reliability by refusing "some magneto and plugs" and insist upon the standard—Bosch Magneto and Plugs.

Be Satisfied Specify Bosch

Write for Literature

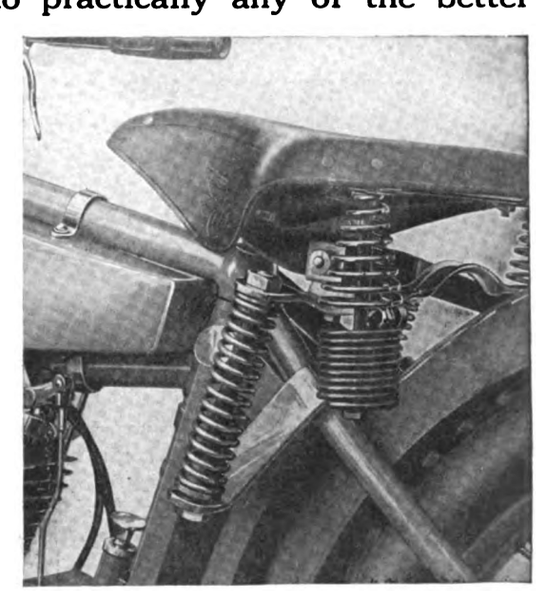
BOSCH MAGNETO COMPANY
206 West 46th Street - - New York

Comfort on All Roads

MAKE YOUR OLD MACHINE UP TO DATE

THE Y-A shock absorber, which can be attached to practically any of the better machines, effectually smoothes out all rear-wheel jolts. Two big, flexible coil springs take up every road jar and vibration, while the design eliminates any possibility of sideplay and does away with need of joints in the frame.

The Y-A shock absorber is made to fit the Harley-Davidson, Excelsior, Thor, Indian, etc., of 1911 or earlier models. State make and model of machine when ordering. Price, $5.



Y-A Shock Absorber, $5

Dealers and jobbers can increase profits greatly by fitting Y-A shock absorbers to old machines. This makes second-hand machines much easier to sell and doubles the satisfaction of their service. Write at once for our dealer's proposition.

CONSOLIDATED MFG. CO., 1730 Fernwood Ave. TOLEDO, OHIO

When writing to advertisers, please mention MOTORCYCLE ILLUSTRATED

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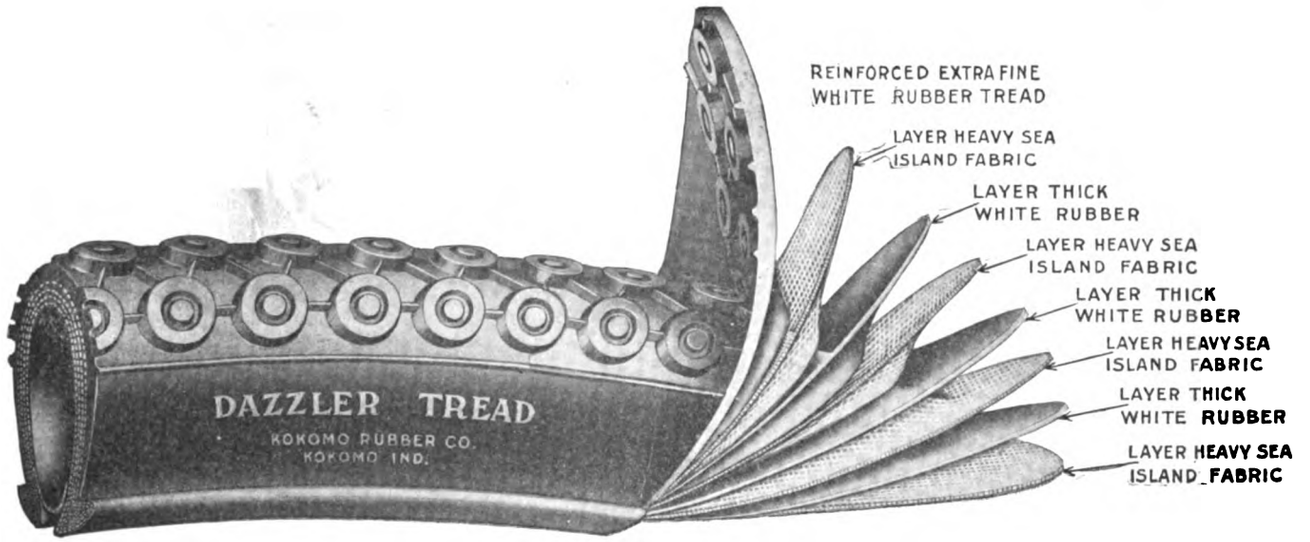


The Dazzler—A Real Non-Skid Tread

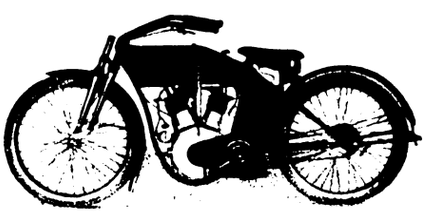
Dazzling indeed in its aggregation of service insuring features is this new arrival in the Kokomo group.

Note the distinctive studs. Your eyes give you the most convincing testimony as to their efficiency as skid and side-slip preventatives. Your common sense tells you that it would be impossible to find a more effective tread. And give your close attention to the seven alternating layers of thick white rubber and heavy Sea Island cotton. Can you find anywhere a more efficient, business-like tire? (Chorus) NO!

Send for our catalog. It tells the whole story.

KOKOMO RUBBER COMPANY, KOKOMO, IND.

Consider The EMBLEM

The Mighty  Motorcycle

As a business building proposition—as an investment to yield good interest on your money.

We leave it to you—Dealers, is not a motorcycle built of the right stuff and in the right way, that will carry, with safety and ease, a rider from coast to coast—that holds enviable records for speed, power and endurance?

Dealers, your prospective customers want service—**day in and day out service,** with **little** upkeep expense attached. Satisfy them and you build business. One good sale not only deserves another, but makes another.

Postal brings our Proposition.

EMBLEM MANUFACTURING CO.

ANGOLA, ERIE CO., N. Y.

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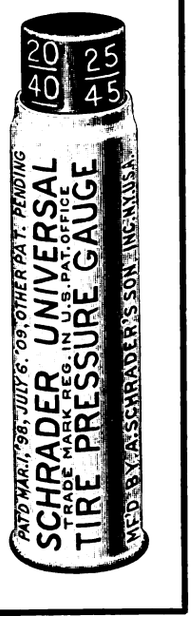
Keep Your Tire Pressure Up
and
Your Tire Expense Down

You cannot run your motorcycle with any old pressure in the tires AND EXPECT THE TIRES TO LAST. Tires are built to withstand a definite and specified air pressure. You can only get maximum service when you inflate them to the EXACT air pressure needed, and maintain that specific pressure at all times.

A SCHRADER Universal Tire Pressure Gauge



PRICE ONE DOLLAR

Will tell EXACTLY what pressure you carry in your tires.

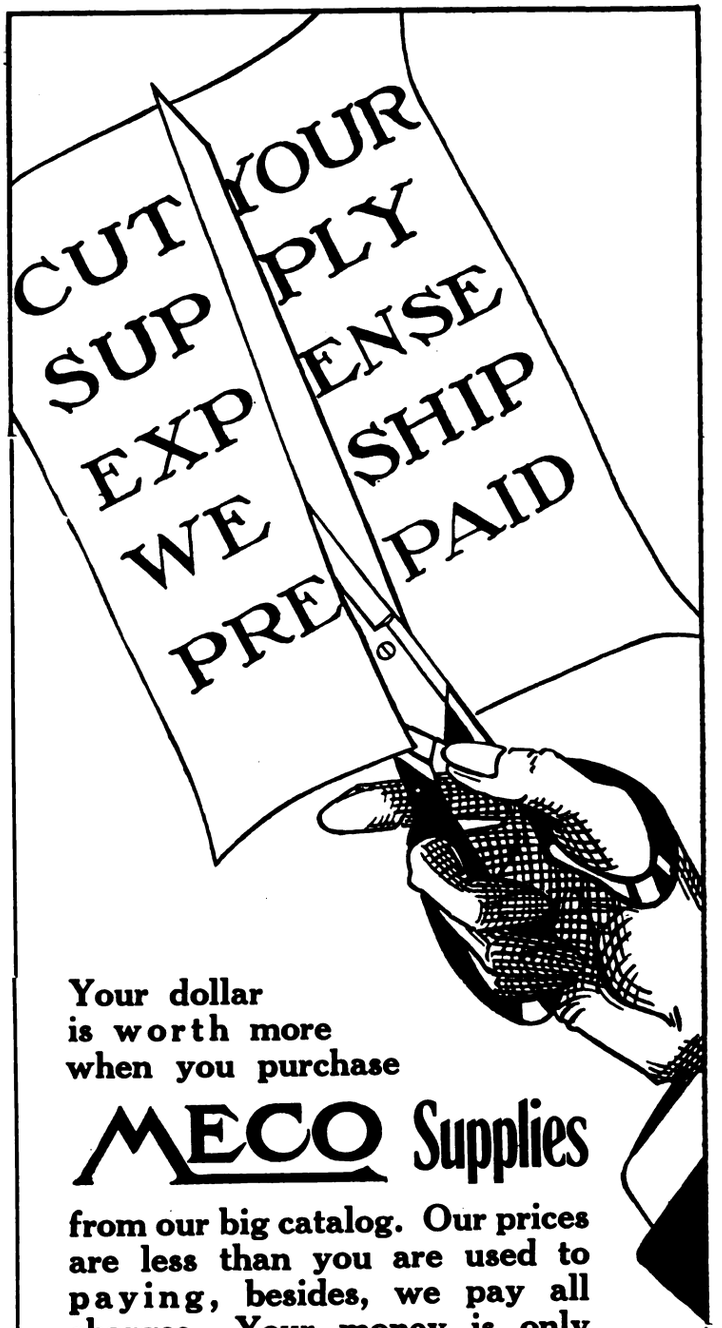
Kicking the tire won't tell you and guessing won't do.

Nearly right isn't enough, the pressure must be EXACTLY right.

ASK YOUR TIRE MAKER

FOR SALE BY
Tire Manufacturers, Jobbers, Dealers, Garages, or by

A. Schrader's Son, Inc.
30-32 Rose St. - New York



Your dollar is worth more when you purchase

MECO Supplies

from our big catalog. Our prices are less than you are used to paying, besides, we pay all charges. Your money is only held on deposit until you would rather keep the goods we ship to you than have it back. This is why there are so many Meco customers.

Dealers, ask for Discount Sheet
Riders—Write for Big Catalog

Motorcycle Equipment Co.
Hammondsport, N. Y.

Pacific Coast Branch, 3664 So. Main St., Los Angeles, Cal.

THE ONLY EXCLUSIVE SUPPLY HOUSE

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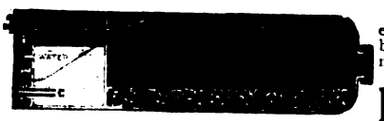
TANK O'GAS



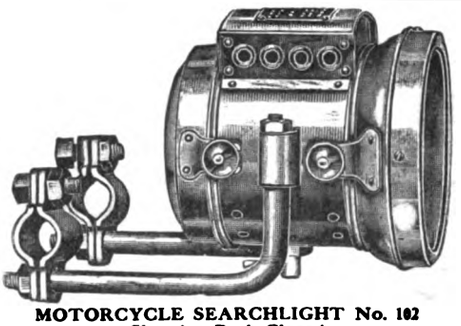
Don't chain yourself to an exchange storage tank, but buy a Tank O'Gas for your motorcycle and

Fill It Yourself

1 lb. of carbide and a pint of water will give you ten hours' light, with a half-foot burner, at almost no cost. Made in two sizes—4" x 13", price $10, and 3½" x 11½", price $9. Send us the price and we will send express prepaid the tank, satisfaction guaranteed. Reference, any mercantile agency.

Larger size for automobiles price $20

TANK O'GAS COMPANY, PORTLAND, MAINE



20th Century Lamps

(Motorcycle and Bicycle)

Foremost in Efficiency, Economy

Throw a long direct ray.

MOTORCYCLE SEARCHLIGHT No. 102
Showing Back Closed

Catalogue Free

20th Century Mfg Co

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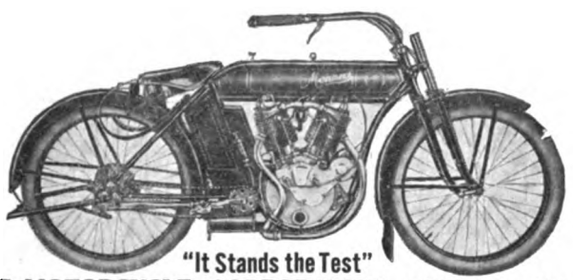


"It Stands the Test"

IVES MOTORCYCLE CORPORATION, 200 John Street
Owego, Tioga Co., New York

Distributed by Lowe Motor Supplies Co., 1727 Broadway, New York; Poulton & Hostetter, 20 S. 57th St., Philadelphia; John W. Grove Co., 624 Liberty Ave., Pittsburg; V. E. Yapp, Esbon, Kansas; Lincoln Holland, 1034 S. Main St., Los Angeles, Cal.

DEALERS! GET OUR 1913 CATALOG—NOW READY

THE SIDNEY B. ROBY CO.
ROCHESTER, N. Y.

Bicycles .·. Bicycle and Motorcycle Sundries
Garage Supplies

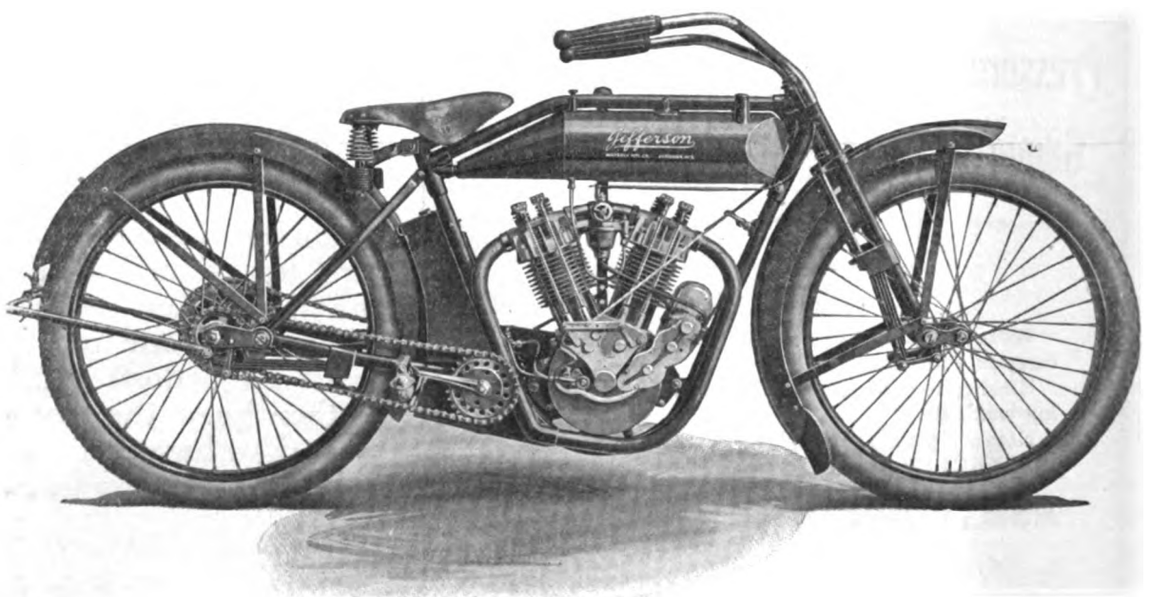
LOOK AT OUR NEW MIDDLE NAME

PENNSYLVANIA Oilproof VACUUM CUP TIRES

PENNSYLVANIA RUBBER COMPANY

Branches—Coast to Coast JEANNETTE, PA

Handsome Is As Handsome Does



It's a beauty and no mistake, but don't judge by the looks alone. Note the automobile leaf springs, front and rear—the clean-cut powerful motor, with overhead valves, its perfect balancing. Note the absolute absence of superfluous parts, the simplicity of the grips, without clutch levers of any sort. Do you know what that stock motor can do, **without** special preparation or "tuning up" of any kind? Oh, only about 78 miles an hour! And without turning a hair. Yes, it's there with speed, but it's got service, too, in its make-up.

Our catalog tells the rest. Post a postal for it NOW.

Waverley Mfg. Co., Jefferson, Wis.

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6 Reasons Why "Wetprufe" Belts Will Please You

If it's a *Wetprufe* motorcycle belt, you are guaranteed absolute belt satisfaction this year.

Flat or "V"—it makes no difference. Same quality. Same workmanship. Same guarantee.

There are many real reasons for *Wetprufe* satisfaction. Among them:

Wetprufe belts are—

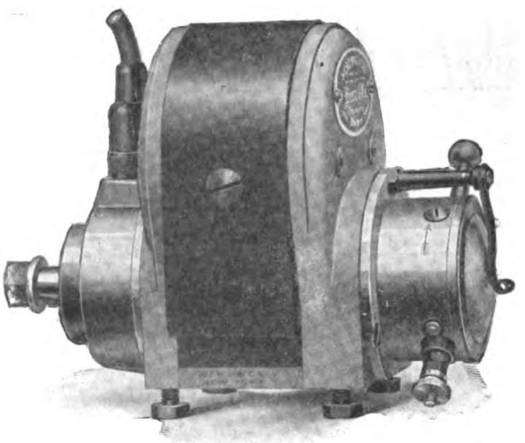
1. **Extra-thick**
2. **Extra-good**
3. **Water-proof**
4. **Weather-proof**
5. **Trouble-proof**
6. ***Guaranteed.***

That's the kind of a belt you want, isn't it? Then, why not get it?

Just say *Wetprufe* and belt satisfaction is yours—***guaranteed!***

Your dealer can supply you with a Wetprufe belt. Ask us for new booklet—"Wetprufe Specialties."

HIDE, LEATHER & BELTING CO.
227 S. MERIDIAN ST., INDIANAPOLIS, IND.
H. T. Roberts, Selling Agent, Railway Exchange Bldg., Chicago.



Which Magneto?

How One Great Firm Decided the Question

Hit or miss methods will not do for the house of Rudge Witworth in Coventry, England, the largest English manufacturers of motorcycles and cycle-cars. Not satisfied to equip their splendid cycles with a Magneto simply because it **looked** to be best or because people **said** it was best, they determined to make an exhaustive analysis of the various Magnetos on their own account. They wanted to **know** beyond question that their equipment could not be surpassed.

Their chief engineer, Mr. Holroyd, was delegated to examine into the matter. He visited practically every Magneto manufacturer on the Continent, naturally including in his trip Stuttgart, the center of the entire world in Magneto production.

While in Stuttgart, Mr. Holroyd called at the Ruthardt plant, the home of the HERZ MAGNETO. He was shown everything from raw material to finished product, including the elaborate testing plant, where a diagram is taken from every Magneto built. Mr. Holroyd stated that no other factory he had visited had such complete facilities for testing, that most of them had none at all and no diagram indicator, and some did not even know what the latter was.

When we say that HERZ MAGNETOS were selected by Rudge Witworth under these conditions, the statement needs no comment.

HERZ MAGNETO gives a strong, hot spark under fuel compression at 35 R.P.M. as against 45 R.P.M. for the best of the other makes. Its superior efficiency and serviceability are beyond all question.

HERZ & CO.
295 Lafayette St.
NEW YORK

Manufacturers of the HERZ PLUG.

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DEALERS!

Send for our Catalog descriptive of the following list of Live Specialties we are manufacturing for 1913 and which are needed constantly in the motorcycle field.

Guaranteed Perfect Specialties

Simplex Spring Tandem Attachments; New Type A-K Luggage Carriers with Tandem Combination; New Type A-K Spring Luggage Carriers with Tandem Combination; A-K Pleasure Side Cars, Metal Bodies; A-K Commercial Side Vans, Bodies Optional; A-K Motorcycle Locks; A-K Fabric Pulley Lagging; A-K Bicycle Luggage Carriers; A-K Manifold Air Valves; A-K Lamp Brackets; A-K Spring Cushions—used in connection with Combination Luggage Carriers; A-K Axle and Stand Extensions; A-K Axle and Special Nuts.

A-K Rain Proof Riding Outfits in Containers with Brackets. Container about size of Prest-O-Lite tank. Also used to advantage for carrying Tools or Extra Tubes, etc.

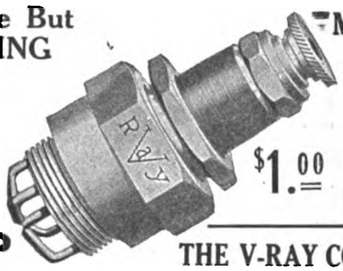
ANGSTEN-KOCH COMPANY
Incorporated
Makers of Good Specialties
00 Englewood Ave. CHICAGO

V-RAY

ALSO IN MICA-LAVA

Not Price But ENDURING Quality

Why defer V-Ray Service?



More Power on Less Gas

$1.00

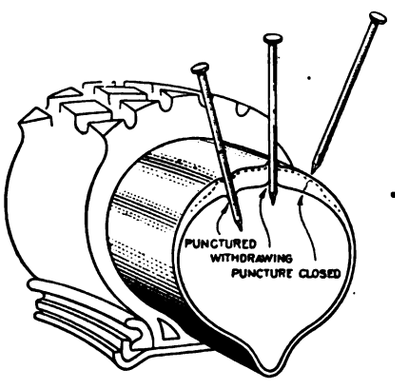
WILL OUTLAST YOUR MOTOR

THE V-RAY CO. Marshalltown, Iowa

More Money for You

We save you a quarter for every dollar you spend with us.
Send for our 1913 Catalogue showing the most complete line of guaranteed Accessories.
We save you DOLLARS on Tires.

Motor-Cycle Co-Operative Co.
650 Woodward Ave. Detroit, Mich.



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AN AIR-FILLED MOTORCYCLE TUBE POSSESSING VERY UNUSUAL FEATURES:

First: It withstands a tread puncture without deflating the tube.
Second: The higher the pressure the tighter the puncture closes.
Third: It eliminates the risk of destroying casings by reason of punctures.
Fourth: The danger of loss of control of machine is removed.
Fifth: It assures you of not being obliged to repair a puncture on the road and gets you "there and back" on full tires.

AIR FILLED ONLY.

Punctures are self-closing by reason of a scientific but simple principle of construction.

NO "DOPE," GUM, PASTE OR OTHER STUFFING MATERIALS

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As pioneers in the production of these articles we have acquired a reputation for high quality that becomes an asset to all who use our products.

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THE LIGHTEST, STRONGEST, SMOOTHEST STEEL TUBING MADE

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They are only sent on request. A penny postal is an even exchange. Write us.

Hawthorne Mfg. Co.

(INCORPORATED)

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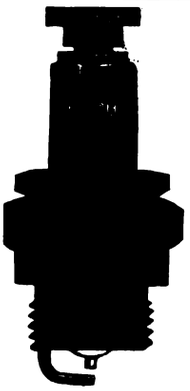


At Last—A Real Motorcycle Spark Plug!

MADE OF HEAT DEFYING, PERFECTLY INSULATING PORCELAIN—AND DESIGNED FOR MOTORCYCLES ONLY

No need any longer to use the inferior mica plug or a makeshift porcelain. This new Motorcycle Standard Spark Plug, built by the greatest manufacturer of spark plugs in the world, gives motorcycle riders a plug with a porcelain insulator that is faultless, defies heat and insures perfect ignition.

MOTORCYCLE STANDARD SPARK PLUG—$1.00

Leading motorcycle engineers of the country have pronounced this plug right in principle and construction. The length over all is 2¼"—just the right size for the limited dimensions available for a spark plug in the motorcycle motor. The porcelain is made in our own potteries. Heat cannot crack it. The bushings are case hardened. The terminal nut will take ordinary wire, ring, or special "Indian" terminal.

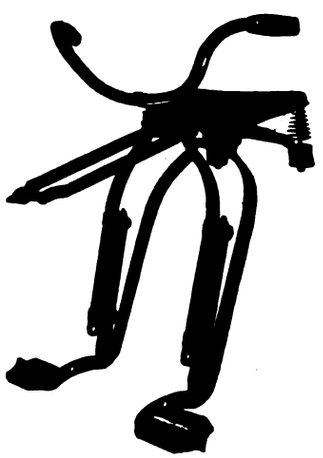
Comes in half-inch or metric sizes. Your dealer will supply you—or sent prepaid on receipt of price and size. Our guarantee—"Your money back or a new plug, unless you are absolutely satisfied."

Jeffery-Dewitt Company **55 Butler Avenue, Detroit, Mich.**

Simplicity—Comfort—Stability

The Empire Special

SPRING TANDEM



"IT FLOATS"

You wouldn't seriously consider purchasing a motorcycle that does not possess at least these three cardinal points. Then why permit a tandem attachment to be fitted on your machine, that has not proven to your complete satisfaction that it possesses these three characteristics in full measure? Here is

The Empire Special Spring Tandem

"IT FLOATS"

There is nothing about the Empire Special to get out of order. Simplicity is the keynote of its construction.

By a peculiar and ingenious invention, for which patents have been allowed, the Handle Bars and Pedals are caused to float with the saddle, insuring the maximum of comfort and smooth riding on the roughest of roads.

The famous Kelly No. 10 Adjustable Handle Bars are fitted on all Empire Specials.

Constructed of steel and no malleable parts, the Empire Special is practically indestructible.

Ask your dealer for our booklet. If he hasn't it, send us his name and you'll get one by return mail. The Empire's proof of superiority is in it.

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The Neverout

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(Patented)

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The Neverout is equipped with a *Patent Glass Covered Reflector of German Silver,* instantly removable; never loses its original brilliancy.

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FOR SALE BY LEADING DEALERS.

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From sales and inquiries received at Chicago Show this lamp will undoubtedly exceed the tremendous success of the famous X-Ray.

A glance at specifications will convince every rider of the desirable features of this lamp—greatest of which is the enormous size, genuine mangin mirror, 6½" diameter, unheard of before in the history of motorcycle lamps.

Specifications.

Front diameter .....8¼"
Body " .....6½"
Size of lens .....6½"

Manufactured by

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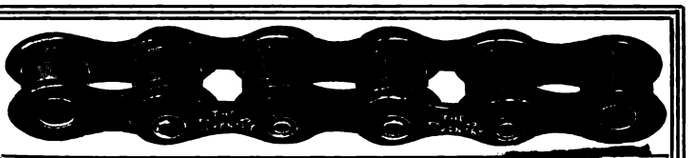

"The Coventry" Chain

"The Motor's True Mate"

Satisfies the most critical rider because it **must satisfy** a score of severest critical chain experts before leaving the factory. Each individual link bears the firm's reputation, so is designed and manufactured accordingly in the most painstaking manner.

It is not surprising, considering the engineering art embodied in **The Coventry Chain,** that it has forged a reputation on true merit alone for exceptionally fine transmission efficiency.

Our catalogue explains how a good chain is made, and is free.

Sarco Engineering Co.
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The MONARCH MICA MOTORCYCLE PLUG

We guarantee it for six months or replaced *without charge.* It is being used *exclusively* by leading motorcycle manufacturers such as:

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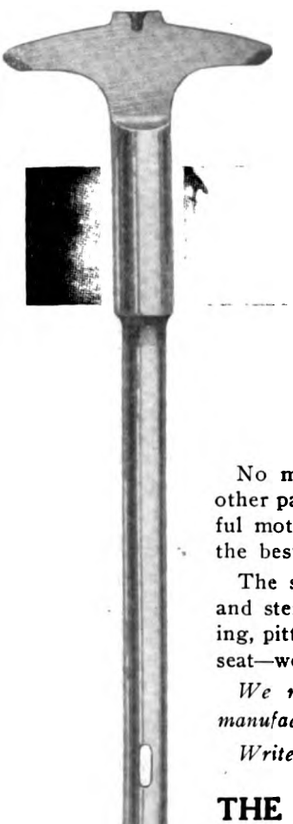
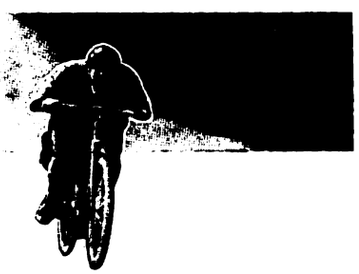
AND ON THE SPACKENGINE

Can we say more? We will send any rider two plugs to try, upon receipt of $1.00 Value 75c. each.

THE BENFORD MFG. CO., Mt. Vernon, N. Y.



A MOTORCYCLE depends on its VALVES for power



No matter how much you spend on other parts you cannot produce a powerful motorcycle unless you equip it with the best valves.

The special formula steel in the head and stem of this valve overcomes warping, pitting and breakage. The cast iron seat—welded on—minimizes pitting.

We make this valve in quantities for manufacturers only.

Write for our prices.

THE ELECTRIC WELDING PRODUCTS CO., Cleveland, O.

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IT'S GUARANTEED

1. To increase power 20%; 2. To save 20% Gasoline;
3. To Remedy Carbonization; 4. To Keep Engine Cooler.

You will never know how perfect your Motorcycle can run until you try the LYDON SPEEDLER Attached in five minutes on intake manifold. 30 Days' Free Use. Money back if not satisfied

PRICE, $3.00, With Handle Bar Control

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DON'T TAKE CHANCES

Don't depend solely upon your delicate grip control mechanism. If it should refuse to work at a critical moment —there'd be trouble. Get a

SIMPLEX MAGNETO CUT-OUT

Price 50c., or complete with cable, 75c. By mail, postpaid. We also make the celebrated Simplex Side Cars. Let us send you our booklet.

SIMPLEX MACHINE WORKS, 45th St. 6th Ave., Brooklyn, N. Y.

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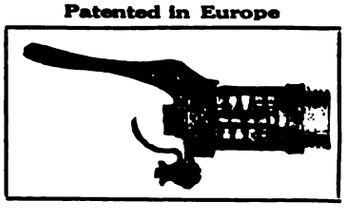
IF THE M&M ECONOMIZER COULD TALK WE WOULD NOT HAVE TO ADVERTISE

Patented in Europe



Patented in America

The M&M is positively guaranteed to save from 40 to 50% of gasoline, and increase the speed and power 20% with less gasoline and less carbon. With the throttle set at twelve miles per hour, by opening the M&M your mileage will be increased to eighteen or twenty miles, WITH THE SAME AMOUNT OF GASOLINE, and LESS CARBON.

The M&M is the only known carbureter adjuster on the market, and can be used for priming the engine. Do not throw your old carbureter away until you have applied our device. THEN NOTICE RESULTS. The M&M is also one of the greatest carbon eliminators on the market, and also acts in the capacity of an air-brake. In fact, IT IS BECOMING THE RAGE IN MOTORCYCLISTS' REALM.

The M&M can be successfully applied to any motorcycle on the market. It requires a ¼" pipe tap to insert into manifold, but can be reduced to ⅛" if necessary. It is made with one valve and six portholes, which admit auxiliary air into the manifold, and will give you that uniform mixture which is ABSOLUTELY NECESSARY in order to obtain SPEED and POWER. The M&M is nickel plated and highly polished.

HOW ABOUT THIS LETTER!

Milwaukee, Wisconsin, No. 842 30th Street, April 22d, '13.

Moller Bros., Phila., Penna.

Gentlemen:—I have placed an M&M Economizer on my 9 h. p. DE LUXE Motorcycle, and have found it to be a great success in more than one way. By opening the M&M, I can increase my speed 15 miles per hour or more. It also gives me more power in climbing hills. I find it is a great saver of gasoline, and the money saved on gasoline would pay for the M&M in a very short time. With the magneto cut off, I can use my engine as a brake, by leaving the compression on, and at the same time cool off my engine, by absorbing in cool air. I believe the M&M will work just as well on a smaller horse power engine, and I am sure that any rider would be as well pleased with it as I am. Yours very truly, JAMES A. STEWART.

WE GUARANTEE THE M&M TO DO JUST WHAT WE CLAIM, or money will be refunded in 30 days. (Reference—Citizens National Bank, Lewistown, Pa.) No dealer or jobber is authorized to sell without giving our guarantee.

Send for our catalogue and information. **PRICE OF THE M&M ECONOMIZER—$1.25 PREPAID.** **BEWARE OF INFRINGEMENTS!**

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Tandem Attachments for 1913 INDIAN

Price complete with Mesinger Superba Saddle $15
Price less saddle $10

The "Bu-Rem" Tandem is the safest and only practical tandem for use

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Write for complete catalogue describing "Bu-Rem" Tandems, Electric Light Outfits, Crank Case, Protectors, Dust and Mud Shields.

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Manufacturers—Jobbers—Dealers

Distributors for the Silent Indian, Cincinnati and Vicinity.

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"OMC"

Motorcycle Supplies

If you want to secure "Gulliver" quality at "Lilliput" prices—or in other words—a lot of value at small cost, send for our catalog of OMC motorcycle supplies. Everything for the dealer and rider. Don't fail to get our catalog.

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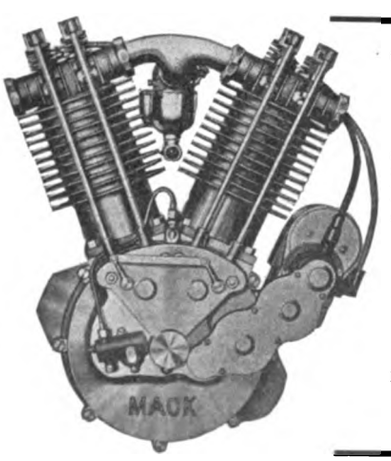

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Most powerful, speediest and most accessible motor ever designed. Built in four sizes—4 and 5 H.P. singles—7 and 9 H.P. twins. Overhead valve mechanism—patented positive action mechanical oil pumps.

BEST MOTOR MADE

We are filling orders for Manufacturers' 1913 requirements.

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Universal Machinery Co.

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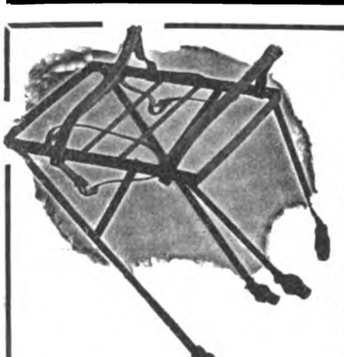

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Is Built for Heavy Duty

For the rider who wants to carry an excessively heavy weight behind the saddle, the Star Luggage Carrier fills the bill.

Scientifically constructed of steel, heavily re-enforced at points of wear, the Star can withstand considerably over 300 lbs. weight. For tandem riding the spring action makes it an exceedingly comfortable seat.

The Star is handled by the leading jobbers in America. Write us.

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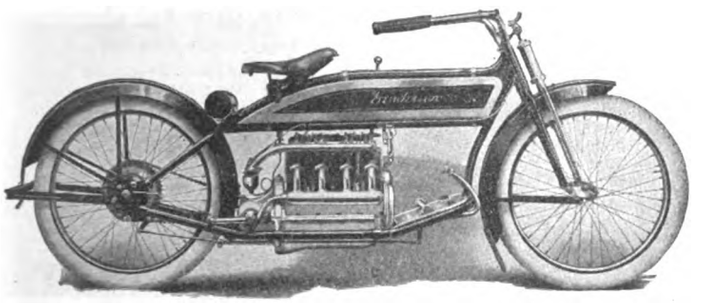
Henderson



8 H. P., 4 cylinders, free engine, chain drive, $325.

Why Four Cylinders?

Because the motorcyclist wants three things—power, flexibility of power and easy riding.

The Henderson's four cylinders develop 8 horsepower—enough and to spare to go over any road or climb any hill you will encounter, and far more speed than you will dare use.

This power is flexible. You can throttle to walking speed and still it pulls. You can jump to high speed without nursing the motor.

Four cylinders produce less vibration than one. They are placed low, so the center of gravity is low. The machine rides easier and holds the road better; and the wheelbase is longer.

These things have given the Henderson national popularity. Write for the literature.

Henderson Motorcycle Company

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Double Protection Against Plug Troubles

Every J-M Spark Plug has both a mica and a porcelain insulation, either of which is sufficient in itself to prevent any leakage or short-circuit—even when current is furnished by a magneto. Therefore, double protection against insulation troubles is positively assured by the use of the

J-M SPARK PLUG

Furthermore, the center electrode is scientifically tempered to withstand the highest temperature of the engine, and after being assembled all parts are subjected to heat and thoroughly baked to prevent undue expansion in service.

Firing points are made of Platinum-Iridium and Nickel Alloy, and will not fuse, pit excessively or carbonize.

J-M Plug combines all the advantages of both the all-porcelain and the all-mica types, and embodies many features of individual merit.

Its superiority has been proven by the most severe service tests.

All sizes can be used for magneto or battery. Price $1.00 each. Sent prepaid from our nearest branch if not at your dealers.

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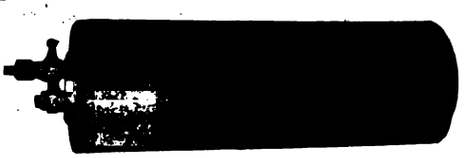

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Beautiful nickel-plated tank, with regulation hands to fit any machine.

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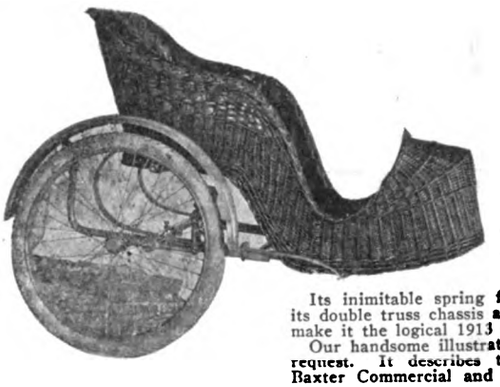

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The strongest, the lightest, the most comfortable sidecar in the world.

Its inimitable spring frame construction, its double truss chassis and its classy shape make it the logical 1913 sociable.

Our handsome illustrated booklet sent on request. It describes the entire line of Baxter Commercial and Pleasure Sidecars.

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The Stoll Spring Tandem No. 2

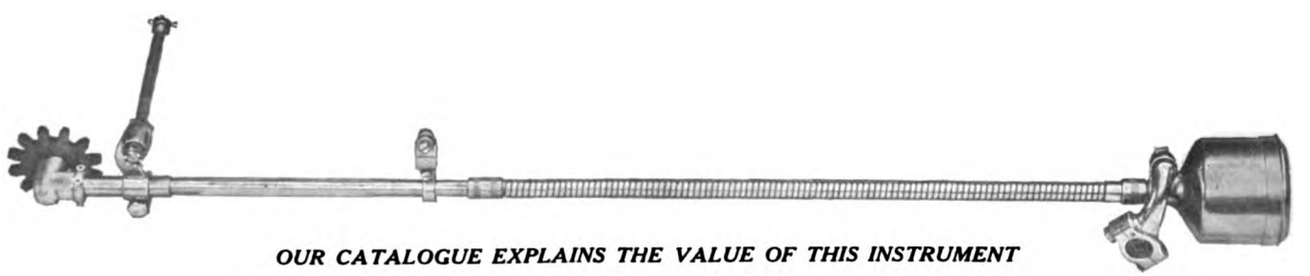
Price $12.50 complete.

THE RIGHT TANDEM AT THE RIGHT PRICE FOR THE 1913 INDIAN

This tandem has a spring action of about SIX INCHES, provided by long, coil springs enclosed in steel tubes. Cushion is curved in the fore part, which gives a very comfortable position. Has a very flexible action and for COMFORT, DURABILITY and APPEARANCE it outclasses many of the higher priced tandems. No side sway. Folding handle bars, lock securely in either the raised or lowered position. If your dealer does not handle these tandems, send us a money order for $12.50, and we will ship one of these tandems to you express prepaid, complete with handle bars, cushion and tool box attachment. Tandem is enameled Indian red. Dealers, write for our proposition.

THE STOLL MFG. CO. Denver, Colo. 33rd and Walnut.

WHY STANDARD SPEEDOMETERS ARE BEST



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To every prize winner whose winning machine is equipped with

The Berling Magneto

we will present a handsome, **useful** trophy as an **extra** prize.

For racing The Berling Magneto beats them all. Its fast, lively, snappy interrupter gets the last bit of speed out of your motor.

The Berling can be fitted to any mounting bracket.

Win an **extra** prize—be **sure** The Berling Magneto is on **your** machine.

Send **today** for free illustrated booklet.

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New Styles—Big Sellers

Loewenberg garments for motorcyclists more than measure up to every standard—style, finish, comfort, quality, protection, class. No matter what a customer may demand, no matter how much he may want for his money, you can make ready sales if you carry this line. It's a winner.

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We make a complete line of motorcycle garments, leggins, motorcyclists' capes, puttees and ladies' motorcycle garments. The Loewenberg line of specialties will make business for you.

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Is essential to the proper attachments of your motorcycle and to your safety.

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BARCO Exhaust Chime

Attach it in 30 minutes and enjoy it all summer.

Note the simple construction.

Note the 3-tone chime with all tones in one tube.

Note the unobstructed exhaust passage of the valve.

Reasonable in price. Prompt delivery.

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Get 100% Efficiency Out Of Your Motorcycle

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Good oils decrease friction and heat. They preserve the engine. Nothing is so injurious as low grade oils. Use the BEST—use

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OILS

HARRIS OILS are America's leading cylinder lubricants. Made of the finest grade Pennsylvania crude stock. Made by a firm with 30 years' experience in the production of high-grade cylinder lubricants.

HARRIS OILS offer utmost quality. Every drop gives *real* lubrication. These oils are preferred by ALL motorcyclists who appreciate economy, quality and efficient lubrication. Ask your dealer. If he's sold out, write us.

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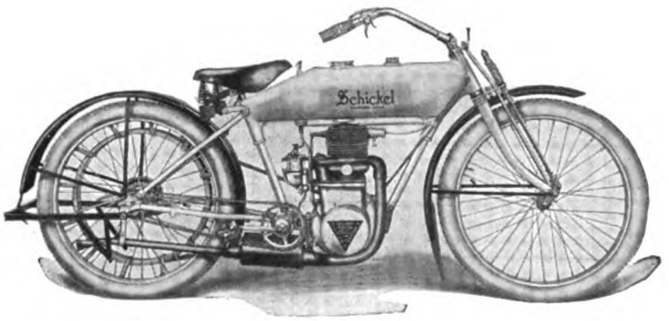
"BIG SIX" FLEXIBILITY



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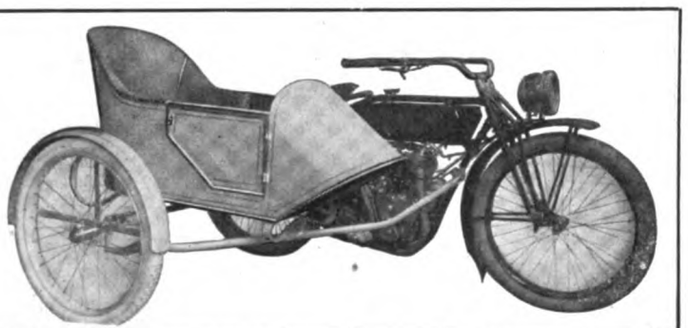

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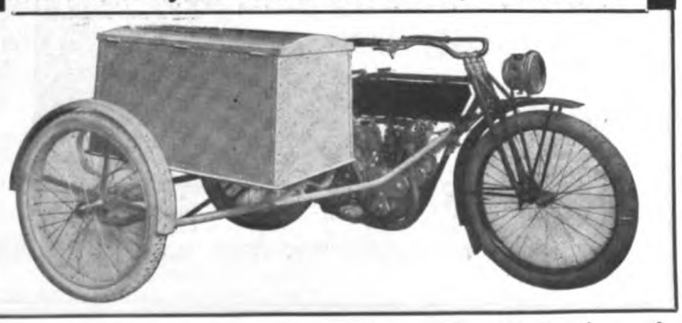

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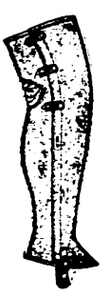

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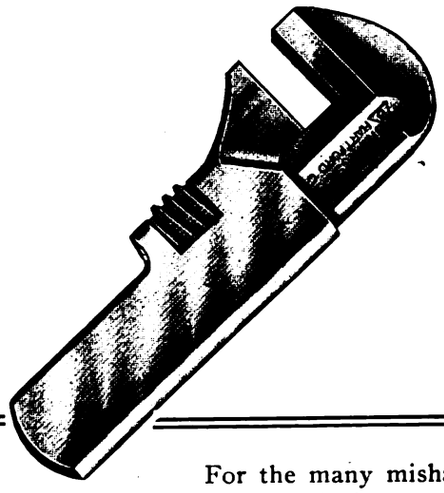

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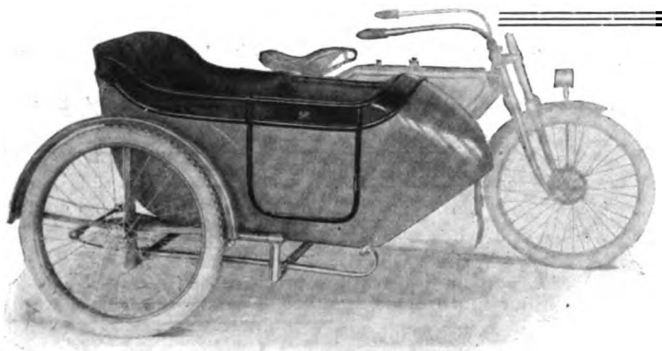

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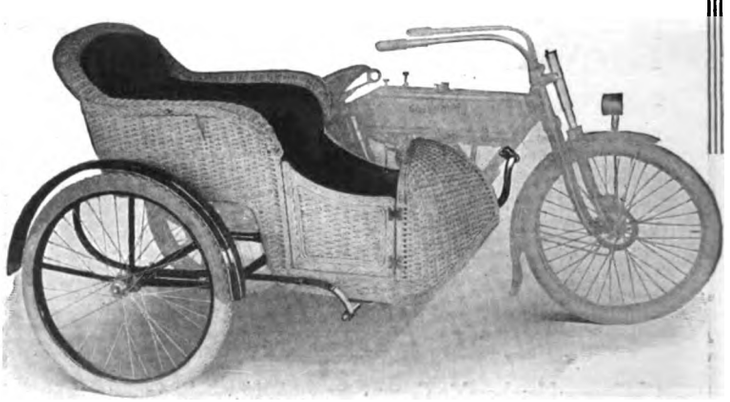

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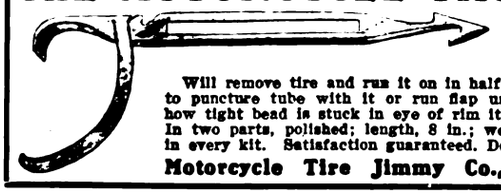

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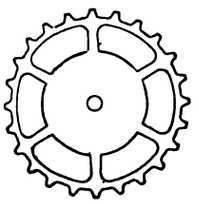

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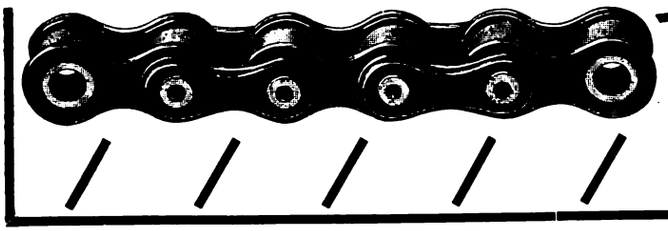

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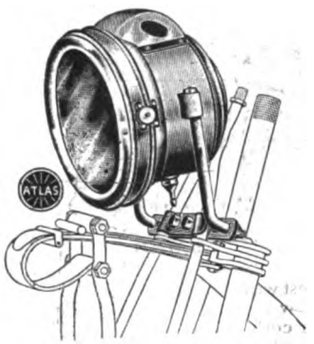

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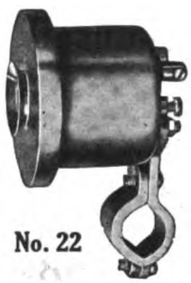

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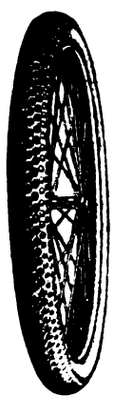

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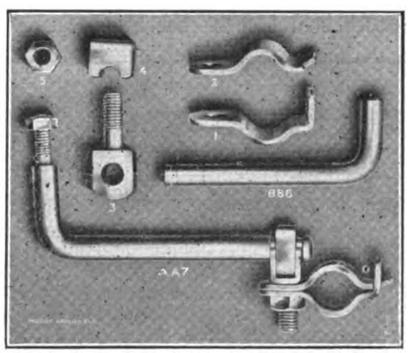

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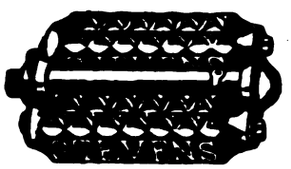

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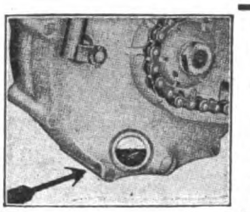

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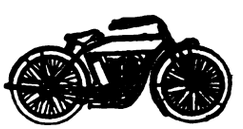

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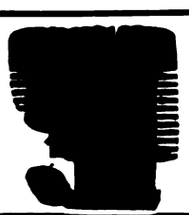

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(The man with the goods) (at Queensboro Bridge)

FOR SALE.—1913, model K, Heitger carbureter, size ¾ in.; price $5. Percy Morgan, 7 Elizabeth St., Newport, R. I.

FOR SALE.—1913 Emblem, 8 h. p.; run less than 100 miles; $230; will ship C. O. D. for $20 deposit. Leroy Voorhees, 534 Seneca St., South Bethlehem, Pa.

FOR SALE.—M. M. single; Bosch magneto; Spartan V-belt; rear tire new. Run about 500 miles; cost $225. Extras new. Tandem seat and handlebars, $15; Eclipse clutch, $15; 20th Century lamp and generator, $9.50; baggage carrier, $3; $267.50 for $150, delivered and guaranteed. Reason for selling—I don't need it. Address Lock Box 233, Savannah, Ga.

HENDERSON four-cylinder for sale. Perfect condition; run 500 miles; cost $325. Will sell for $200. A. A. Wheat, Wheeling, W. Va.

1912 M. M. TWIN with tandem attachment; good condition guaranteed; $175. George E. Egge, Nyack, N. Y.

"SELF-CURING INSTANTANEOUS PUNCTURE PATCHES." By mail, 50 cents. Box of ten. Special prices by gross or half gross lots. F. J. Schumann, 31 So. Walnut street, Akron, O.

FOR SALE.—Indian twin, late 1912 two-speed, ridden 1,235 miles, tires good, recently thoroughly overhauled, guaranteed fine condition, well equipped; $199. G. Leslie Dougherty, Jerseyville, Ill.

FOR SALE.—Flanders 4 h. p. 1912 model, with magneto, free-engine clutch, luggage carrier, gas light, horn and tools; in A No. 1 condition. Price, $125. M. K. Smoker, Ronks, Pa.

NEW SLEEVE DEVICE FOR INDIAN, double jet carbureter, starts motor instantly; $60c. postpaid. G. A. Allen, Livermore Falls, Maine.

FOR SALE.—Frame with tank, handlebars, seat post and transmission for 1910 Merkel-Light; wheels 26 in.; Thor Coaster, coil, Mesinger saddle and luggage carrier; what is it worth? or want engine to fit same. Have also Minneapolis 1911, complete with clutch; two-speed and lamp; in good condition; $150; want Twin. Robert Jensen, Watertown, S. D.

FOR SALE.—Indian 1913 Twin; $225; run 40 miles; guaranteed perfect; reason for selling, other use for money. Edw. Ladd, Vineland, N. J.

FOR SALE.—1911 M. and M. motorcycle; 4 h. p.; Bosch magneto; new; need money; will sell for $75 if sold at once. Wm. Long, 1309 Kaighn Ave., Camden, N. J.

WANTED.—Long cushion for two passenger Maxwell car. Roadster gasoline tank similar to Ford. A. A. Jordan, 279 Lumpkin street, Athens, Ga.

WANTED.—New 1913 motorcycle; Henderson or Harley-Davidson preferred. O. W. Hendricks, Mountain Home, Idaho.

HELP AND SITUATIONS WANTED

WANTED.—Two good motorcycle and bicycle repairmen; also one good inside salesman. A. H. Patterson, 1080 Bedford avenue, Brooklyn, N. Y.

WANTED.—Good experienced motorcycle salesman, to sell Indians in the best territory in the world. Liberal commission. Guy W. Campbell, the Indian Man, Waterloo, Iowa.

WANTED.—Side line salesman to sell well-advertised and much called for motorcycle article. Big money to be made. Write at once. C. M. C., MOTORCYCLE ILLUSTRATED.

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BARGAINS in motorcycle supplies and slightly used motorcycles. Write for particulars. Jewell E. Pierce, Magnolia, Miss.

YOUR NAME AND ADDRESS on 20 choice visiting cards, 10 cents. French beauty watch ornament free. Warfel, Photographer, Cadiz, O.

INSTANTANEOUS, self-curing puncture patch. Agents wanted. Sample $1.00 box by mail. $.75. Special prices for ½ and 1 gross lots. Akron Tire & Accessories Co., Akron, O.

MOTORCYCLISTS!—Searchlight gas lamps, complete with generator and brackets, $6.50. Jewell E. Pearce, Magnolia, Miss.

GET COMPLETE OUTFIT for monogramming autos and motorcycles with our transfer letters; small investment, big returns. Write for full particulars. Motorist's Accessories Co., Ashland, O.

CUSHIONS FOR YOUR CARRIER

BUY DIRECT from manufacturers. We prepay. Spring cushion, 10 x 14 in., in Moroccoline Spanish leather, red, tan, green or black, $2 prepaid. Tufted cushion without springs, size, etc., as above, $1.15 prepaid. Send for circular and samples of leather. Geo. Egelberg, 144 South Sixth street, La Crosse, Wis.

DEALER'S CARDS, Etc.

GUS ROTHOLZ, agent for Indian and Excelsior. 1491 Fifth avenue, between 119th and 120th streets, New York. Telephone, Harlem, 2337.

RIVERSIDE MOTORCYCLE GARAGE—Distributors for Reading-Standard and agents for Eagle motorcycles, Simplex side cars and F. N. combination tandem attachment and luggage carrier, complete, $15. 1913 models in stock; also a large number of used machines at bargain prices. A complete machine shop; all repairs and supplies. 533 West 110th St., near Broadway. Tel. 5615 Morningside.

"BOB" BRAZENOR, specialist on repairs, Brooklyn agent for Harley-Davidson and Excelsior motorcycles. Parts and supplies for all makes in stock. 1507 Bushwick Ave., Brooklyn, N. Y.

B. & C. TWO-SPEED and free engine gears for chain-driven motorcycles of the counter-shaft type. Bushnell & Cannon, 1268 East 80th street, Cleveland, Ohio.

THE LATEST AND BEST guaranteed Motorcycle Supplies at lowest prices will be shipped same day your order is received. You get satisfaction in every package. Write for largest Motorcycle Supply Catalog ever printed. Motorcycle Equipment Co., Hammondsport, N. Y.

T. J. SIXSMITH, expert repairing; agent for R.-S., Indian and Excelsior motorcycles. 208 W. 100th street, New York.

M.-M. AND EAGLE motorcycles. Two big twins—$240 and $275. Two big singles—$200 and $235. The largest and most powerful line in America. Full line of parts and accessories at George P. Jenkins, Eastern Distributor, 256 West Fifty-fifth street, New York City.

THE NEW YORK Motorcycle Co., 782 8th avenue, New York City. Distributors of Thor motorcycles and parts. We have the only supply of parts in America for F.-N. and Royal Pioneer motorcycles. We also carry a big stock of parts for Indian, Curtiss, M.-M., N. S. U. and R.-S. We have at all times over 50 used machines at all prices. We repair broken cylinders, pistons and crank cases. We have the largest and best equipped motorcycle garage in the country and we do reliable repairing.

HAVE YOUR motorcycle overhauled now; expert work, moderate charges; ten years' experience in motorcycle repair work. Parts for N. S. U., Indian and Peugeot. Metropolitan Motorcycle Repair Co., 320 Amsterdam avenue, cor. 75th street, New York. Tel. No. 1001 Schuyler.

T. S. CHIPLEY—The Motorcycle Man, Greenwood, S. C. Distributor of Harley-Davidson motorcycles and parts. We have the best equipped repair shop in the South. All parts for Harleys in stock at factory prices. Terms, cash with order. When in need of parts save time and order from us. Also have tires, belts, oils, etc. Prompt shipments guaranteed. T. S. Chipley, Greenwood, S. C.

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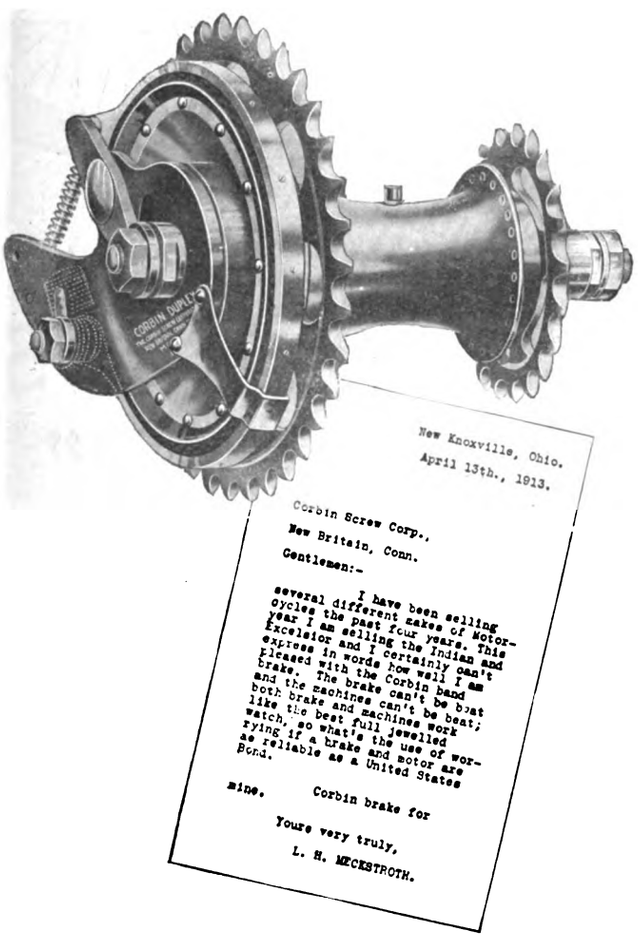
The Popularity of the

CORBIN Motorcycle Band Brake



This letter is merely a selection from many of like nature.

The superiority of the Corbin Motorcycle Band Brake is a fact to which the vast majority of motorcycle dealers and manufacturers throughout the country testify.

This testimony is backed by the fact that more than 60 per cent of all the 1913 motorcycles are equipped with Corbin Motorcycle Band Brakes.

Send for catalog, describing all the models of Corbin Brake and Hubs.

The American Hardware Corporation

Corbin Screw Division

New Britain, Conn.

Makers of the Corbin-Brown Motorcycle Speedometer

Branches: New York, Chicago, Philadelphia

Licensed Coaster Brake Manufacturers

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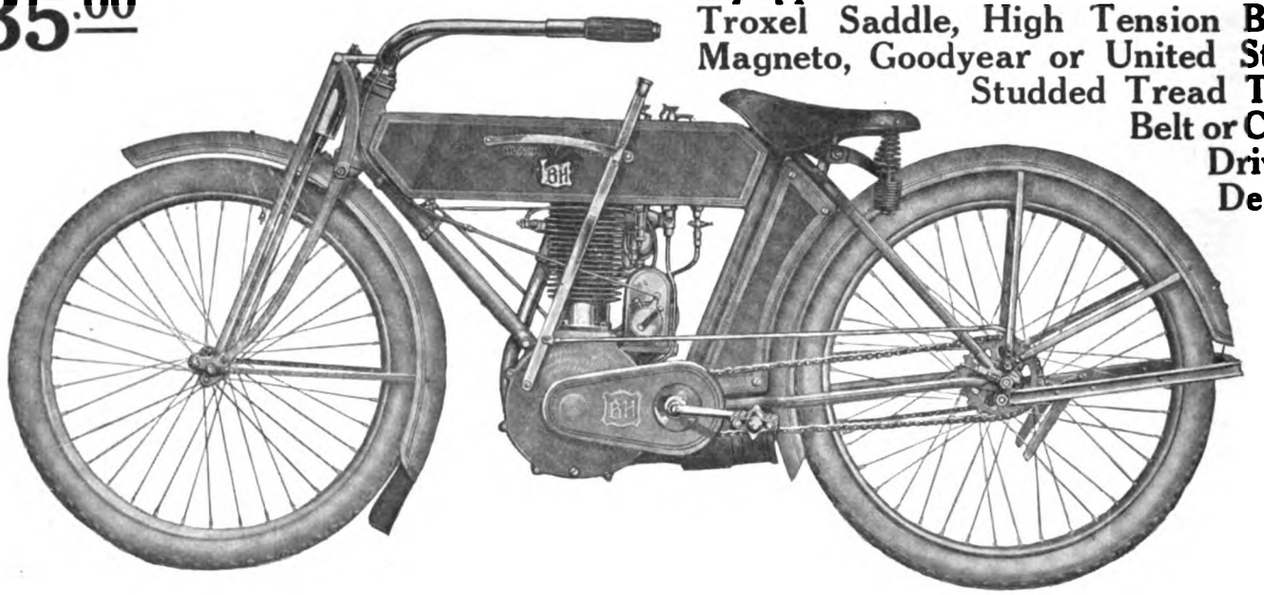
$235.00

Equipped With Schebler Carbureter, Troxel Saddle, High Tension Bosch Magneto, Goodyear or United States Studded Tread Tires, Belt or Chain Drive as Desired



Blaze Your Way To Greater Motorcycle Sales With "Black Hawk"

Live-wire dealers everywhere are grasping the local sales-rights of this new motorcycle, designed by the oldest, wisest heads in the motorcycle world.

The "Black Hawk" is the motorcycle all masters of motorcycle craft impatiently awaited for over a year and a half. It is the masterpiece of the acknowledged geniuses of the motorcycle world—a wonderful achievement.

The "Black Hawk" Is the Motorcycle Sensation of 1913

The success of each "Black Hawk" agent is **sure**—because the supremacy of the "Black Hawk" is **certain.** No other motorcycle shown in 1913 combines within itself so many **new** features that appeal so forcibly to riders--so many innovations that are such **real improvements.**

Check these improvements over—as they are noted in the panel to the right. Then act quick—don't let "the other fellow" beat you to this sure, easy sales-maker. Time is slipping—don't let it slip this opportunity through your fingers. Write today.

BLACK HAWK MOTOR CO.
Dept. B Rock Island, Ill.

"Black Hawk" Betterments That Bring Bigger Sales to "Black Hawk" Dealers

Spring Forks and Seat Posts designed so uniquely that they cannot "bottom"—that they cannot break.

Free Engine Clutch—instead of an unsightly bump on engine shaft or side of machine, clutch is **on the inside of rear hub**—thoroughly protected—most durable, being of the multiple steel disc type. This clutch is **lubricated while slipping,** thus avoiding wear and tear on engine and whole machine.

Most Flexible Motor—as fast and almost as silent as thought, yet extremely flexible, handling machine flawlessly at all speeds from 50 to 60 miles to 4 miles per hour without use of clutch.

Steel Oil and Fuel Tank Built Integral With Frame—enabling saddle to be placed low without sacrificing strength or beauty of frame—and also making the "Black Hawk" balance almost as perfect as that of a fine watch.

Sight Feed Mechanical Oiler — our exclusive position automatic oil pump, with only one moving part, cannot clog, always furnishing perfect lubrication, with oil flow increasing automatically as speed of machine increases, the flow stopping when engine stops.

Send for Free Catalog

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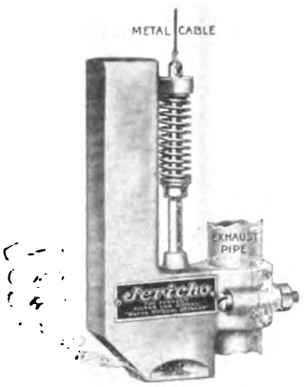

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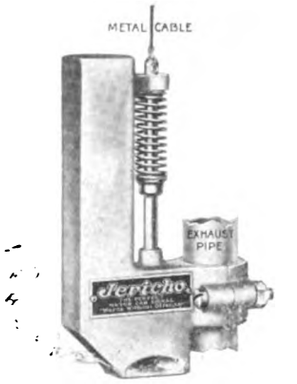
to attach

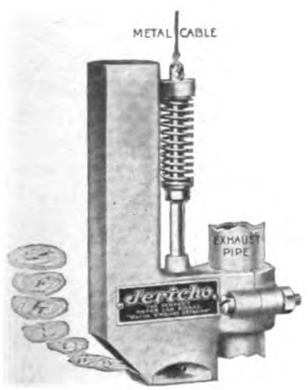
Jericho

MOTORCYCLE HORN

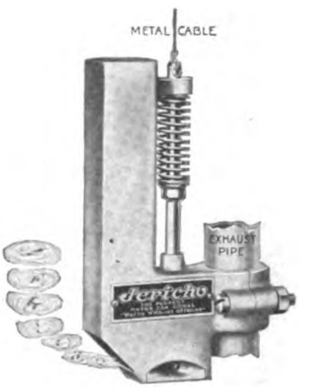


And a million years to convince you of the superiority of any other signal.

It's the horn you've been looking for—the kind that will end all your signal worries.



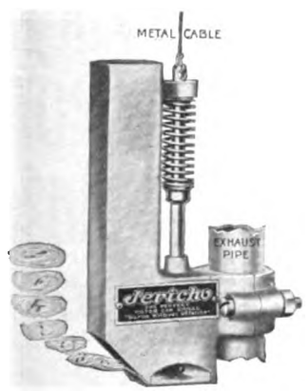
Jericho can't get out of order
Jericho costs nothing to operate
Jericho cannot clog



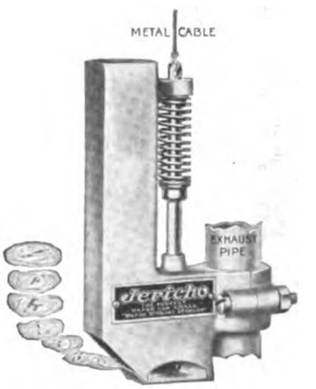
Jericho's clear, far-carrying note never startles and always warns effectively.

Jericho is guaranteed for the life of your motorcycle.

Price Complete $4.50



You can get the Jericho Motorcycle Horn at all up-to-date supply houses; or write to the manufacturers.



The Randall-Faichney Company

Jamaica Plains - - - Boston, U. S. A.

Ask for Booklet 7.

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The New Thor Factory in Which the Finest Built Motorcycle Will Be Made.

HASTE and Expediency in motorcycle manufacture emphatically do NOT mean the same. Haste denotes inadequate equipment—a general state of unpreparedness—and invariably means slurred inspections, careless workmanship, flawed construction and, finally, as a natural result, poor service on the road.

Expediency, on the other hand, indicates the presence of sufficient machinery, skilled labor, and, above all, a frictionless, smooth, "ball bearing" system of factory supervision and operation that eliminates every suggestion of wasted time and yet automatically assures absolutely flawless construction.

Therefore, we believe you will understand us when we say that every THOR motorcycle leaving our plant is made with expediency, which does NOT mean haste. That is why every THOR dealer can count on absolutely prompt deliveries. And that, also, is the reason why every THOR rider can be assured of his mount's flawless perfection—of its speed—of its comfort—of its invariably perfect enduring service.

Aurora Automatic Machinery Co.
Chicago

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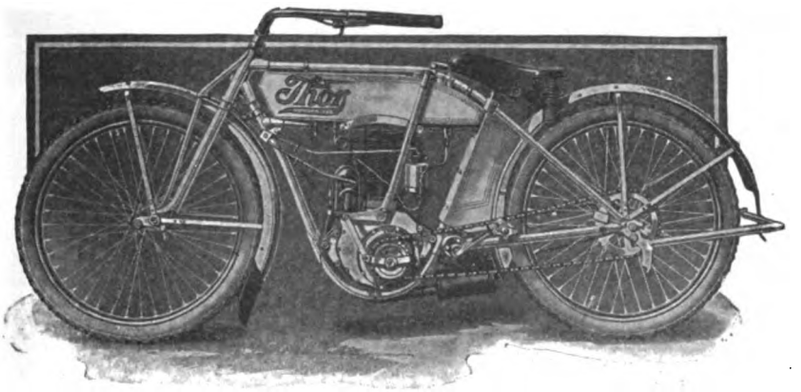


Model "13-M" $225.00

Some Thor Facts

Power, Comfort, Silence, Durability, Economy in operation, beauty of appearance. These are the features you should look for in a motorcycle, and these qualities are possessed in full measure by the THOR.

The THOR has overhead, mechanically operated valves. That means perfect cooling, higher compression, stronger down stroke—consequently greater power. Add to this the famous THOR undergeared internal gear direct chain drive, and you have the reason for the THOR'S tremendous speed and great reserve power.

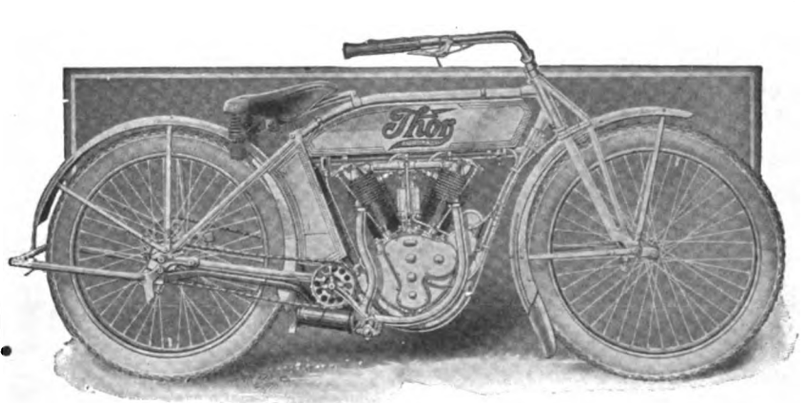
Comfort is well represented in the THOR by its spring fork, of exclusive THOR design, affording literally a floating riding motion, the famous THOR free engine clutch, eliminating all tendency toward jerky transmission, the vibrationless roller bearing motor, assuring a smooth continuity of power always, low saddle position afforded by the graceful sweep of the THOR frame and the THOR spring seat post with springs of varying strength for light or heavy road shocks.

From the standpoint of economy, again the THOR predominates. The THOR automatic carbureter, with twin butterfly adjustment, is responsible, to a large degree, for this. It affords a mixture absolutely correct at all times, yet consuming considerably less gasoline than other machines. It is not an unusual performance for a rider to make from ninety to one hundred miles on one gallon of gasoline.

A glance at the THOR shows its quality. It's a machine that looks like what it is, a thoroughbred. Its light, classy, graceful lines make it a machine to be exhibited with pride.

The Thor Line comprises Model 13-M, a 4 h. p. single at $225; Model 13-W, 5 h. p. single at $240, and Model 13-U, a 7 h. p. twin at $290. We will be glad to send our handsome catalog on request.

AURORA AUTOMATIC MACHINERY CO.



GENERAL OFFICES:
THOR BUILDING
1307 Michigan Avenue
CHICAGO, ILL.

Model "13-U" $290.00

Pacific Coast Distributor: Pacific Motor Supply Co., 1440 Market St., San Francisco, Cal.
New York City Distributor: New York Motorcycle Co., 782 Eighth Ave., New York, N. Y.
Boston, Mass., Distributor: W. F. Mann Motor Co., 356 Columbus Ave., Boston.

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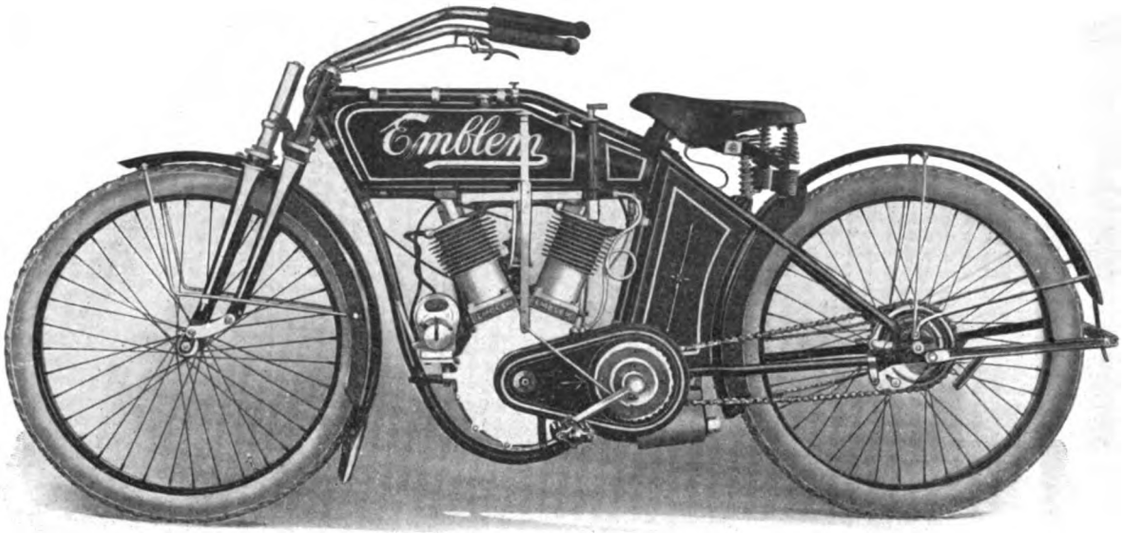

EMBLEM MODEL 108—67 Cubic In. Piston Displacement, Price $250.

Why the Emblem Motor is Powerful, Silent and Flexible

We invite your careful attention to the illustration of the EMBLEM motor shown here. Note the mechanical inlet valves of the overhead type, which permit of perfect cooling, higher compression—hence, greater power. Add to this flywheels of exceptionally large diameter, with the bulk of the weight in the rims, where it is most effective, and you have two good reasons for the indomitable power of the EMBLEM motor.

Then consider the EMBLEM system of lubrication, conceded by the American Association of Gas Engineers to be the **most perfect** system in the world. Force feed pump with sight feed are the generally accepted forms of lubrication, and these have been followed in EMBLEM construction. But—here is the difference—the crank and flywheel shafts are hollow, and have oil holes allowing both an **inside** and **outside** flow of oil, thus positively assuring a constant flow of oil throughout.

We give here but the salient features of the EMBLEM motor, the mainspring of EMBLEM efficiency. The rest you will learn from our catalog, which will be sent upon request.

Emblem Mfg. Co. **Angola, N. Y.**

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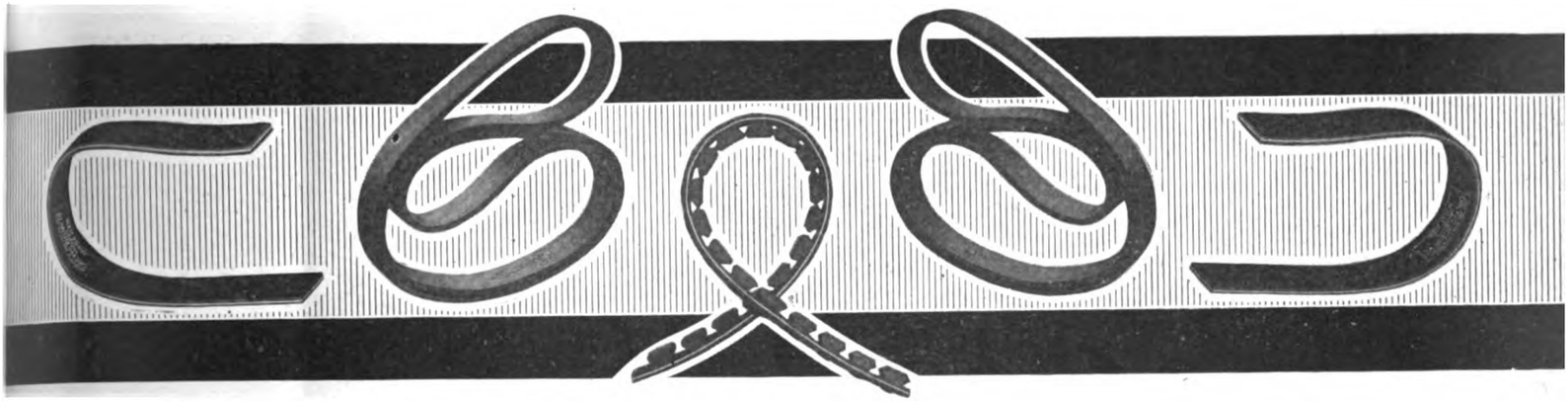

CHIBECO SERVICE

For Riders

After all, the rider is the final judge. In almost every mail we receive a letter telling the remarkable service given by a *SEA LION* or *WHITE STRIP* Belt. Such letters are the best evidence both of the superiority of the belt transmission, and of the supreme qualities of *SEA LION* and *WHITE STRIP* Belts.

For instance, the other day we heard from a man weighing over 200 lbs., who has used a *SEA LION* Belt two years, ridden over 20,000 miles and who ends his letter with the statement that the belt is still in good condition, and will last another season.

Another letter says, "I have used your *WHITE STRIP* Belt over 10,000 miles, and can truly say it is superior to any belt on the market, and it does not stretch."

That is what we mean when we talk about service for riders. The best service we can give a rider is to furnish him a belt better than any other on the market, and that's exactly what we are doing.

When you write for our catalogue send us your nearest dealer's name. We have something that will go back with the catalogue that you can use to advantage.

For Dealers

One of the big things we are doing for the dealer is the *CHIBECO* Belt Bulletin. If you are not getting this regularly, let us know, so we can put you on the mailing list. The bulletin is full of selling helps for you. The May issue, just off the press, has a table of belt sizes for all makes of machines from 1900 to 1913.

The *CHIBECO* Repair Outfits, *CHIBECO* Window Displays, *SEA LION* Dressing Display Cabinets—all to help the dealer. This space is too small to tell you more, but a letter from you will bring full details.

CHIBECO service means real help for you in increasing your business.

Now, don't forget to subscribe today for the CHIBECO Belt Bulletin. It will only cost you two minutes' time, and a postage stamp.

Chicago Belting Co.

113-125 North Green St., Chicago, Ill.

NEW YORK **NEW ORLEANS** **PORTLAND, ORE.**
NILES, MICH. **LOS ANGELES** **CLEVELAND**

M. C.

CHICAGO BELTING CO., Chicago.

I am a dealer. Send me the Chibeco Belt Bulletin regularly.

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300 Pages

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Nothing can give you a better idea of the wonderful scope, size and variety of our line as this book, and we earnestly urge you to get your copy **without delay.** As it looks now we may have to run another edition, so if you don't want to be kept waiting, sit right down now and drop us a postal.

We sell to the Trade only. When writing for Catalog, use your printed stationery or tell us who you are, that we may know you are entitled to Wholesale Prices.

MOTOR CAR SUPPLY CO.

1451-53-55 Michigan Ave., CHICAGO, ILL.

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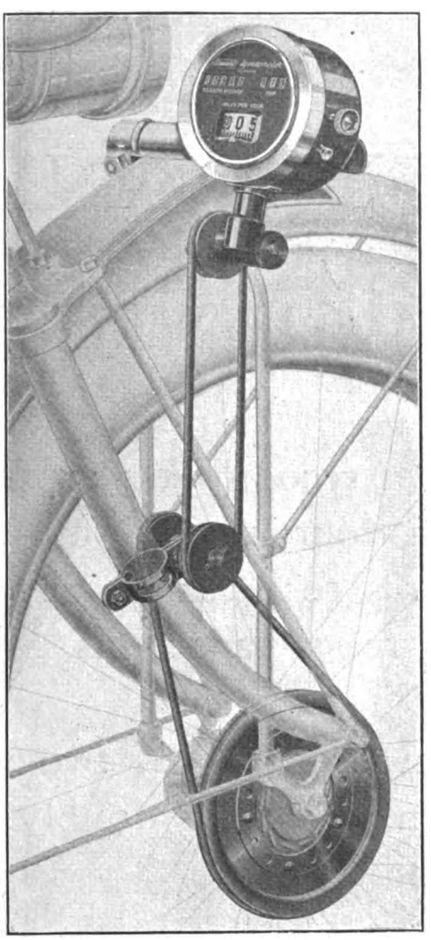
Stewart

Motorcycle Speedometer

With New Two Belt Front Wheel Drive



FLEXIBLE shafting has been proved radically wrong for driving motorcycle speedometers, Our new two-belt front wheel drive—an exclusive Stewart feature—eliminates every trouble heretofore experienced in transmitting driving power to the instrument. The pulleys are of steel and fibre, the belts of coiled steel piano wire. There is nothing to be worn out by the spring fork action or handlebar movement in turning corners.

$12 ***(Complete)***

75-mile speedometer; 100,000 mile season odometer, 100 mile trip register, which can be readily reset to any tenth of a mile without disturbing total mileage of season register, front wheel two-belt drive complete with pulleys and brackets.

The Stewart Speedometer Factory
1942 Diversey Blvd., Chicago, U.S.A.

International Service
Service Stations in all principal cities all over the world

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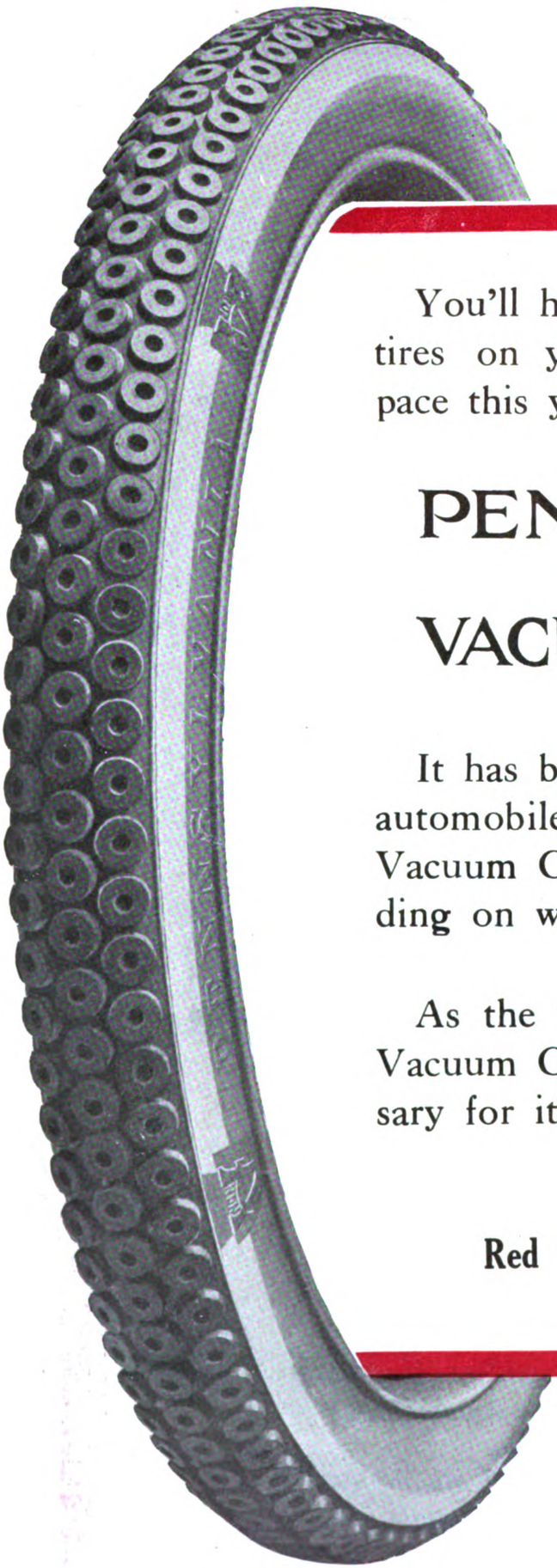

You'll have to have these *real automobile* tires on your motorcycle to keep up the pace this year—

PENNSYLVANIA Oilproof VACUUM CUP TIRES

It has become a recognized fact that the automobile, with four wheels, must have Vacuum Cup Tires to be safe against skidding on wet or greasy pavements.

As the motorcycle has only two wheels, Vacuum Cup Tires become doubly necessary for its equipment.

Red Tread Oilproof Vacuum Cup Tires for bicycles no

PENNSYLVANIA RUBBE

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PENNSYLVANIA RUBBER COMPANY OF NEW YORK
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An Independent Company

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The construction of the Vacuum Cup Tires for automobiles and for motorcycles is precisely the same—the same highest grade rubber, the same strong Sea Island Cotton fabric, the same careful tire building—in short these are

AUTOMOBILE TIRES MOTORCYCLE SIZE

Guaranteed 5,000 Miles

Although this guarantee is double the accustomed motorcycle tire distance, Vacuum Cup Tires far outdo this mileage in actual average service.

The absolutely Oilproof compound of Vacuum Cup Tires is the tire wonder of the time—you don't have to avoid the oiliest road—you need not have the slightest fear of that growing tire evil—"oil disease."

At your dealers—or he will get them for you—they're the sportiest looking tires, too, on your machine.

eclipsing their last season's tremendous selling sensation

COMPANY, Jeannette, Pa.

Minneapolis, 34 S. 8th Street
Kansas City, Mo., 514 E. 15th St.
Omaha, 215 S. 20th Street
Seattle, Armour Building

PENNSYLVANIA RUBBER COMPANY OF CALIFORNIA
San Francisco, 512-514 Mission Street
Los Angeles, 930 S. Main Street

an independent selling policy

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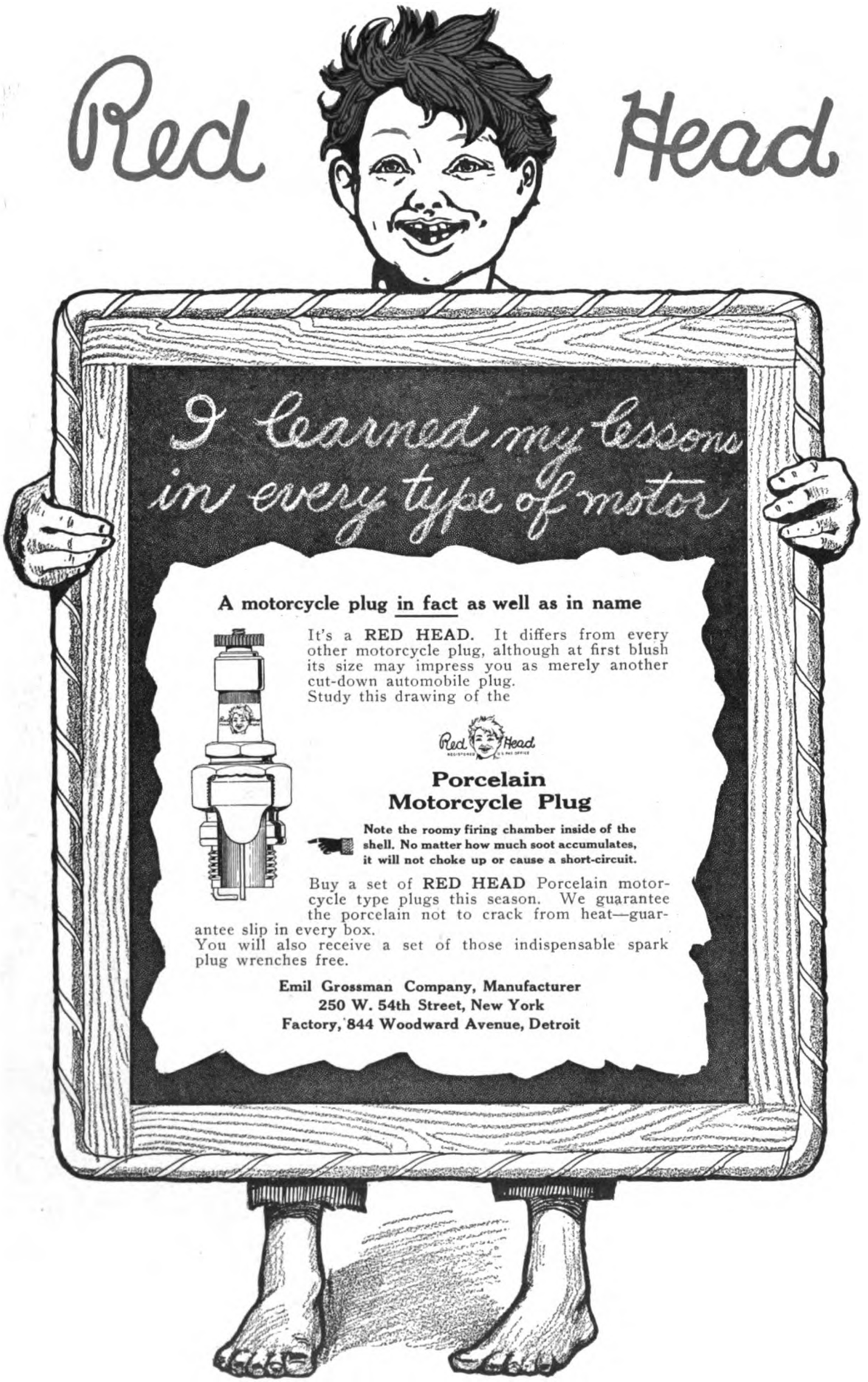

A motorcycle plug in fact as well as in name

It's a **RED HEAD.** It differs from every other motorcycle plug, although at first blush its size may impress you as merely another cut-down automobile plug.
Study this drawing of the

Red Head

Porcelain Motorcycle Plug

Note the roomy firing chamber inside of the shell. No matter how much soot accumulates, it will not choke up or cause a short-circuit.

Buy a set of **RED HEAD** Porcelain motorcycle type plugs this season. We guarantee the porcelain not to crack from heat—guarantee slip in every box.
You will also receive a set of those indispensable spark plug wrenches free.

Emil Grossman Company, Manufacturer
250 W. 54th Street, New York
Factory, 844 Woodward Avenue, Detroit

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MOTORCYCLE ILLUSTRATED

Weather Forecast:
Every Day Fine for the "Big Y"

Road-Riders' Edition

The Yale Bulletin

Published by Consolidated Mfg. Co.
1730 Fernwood Ave., Toledo

May 15, 1913

Circulation, 100 per cent Live Wires

Springtime and the Lure of the Road

IN the Springtime the motorcyclist comes into his own. He may have been one of the sterner sort who got into his cold-proof winter-riding clothes and bucked snowdrifts or defied the bitter north winds all winter with his steady-going Yale; but no matter how triumphantly he overcame the obstacles that Old Boreas set in his path, or how keen was his enjoyment of winning in those contests, the coming of Spring and the opening of road riding brings a thrill that nothing else equals.

Bursting Buds and Meadows Green

The sun begins to make its warmth felt, soft and delicious after the sharp, biting blasts of winter. As your machine purrs smoothly over the highway the grass in the meadows along the road is turning green. The buds are bursting on the trees, giving the woods a fresh, delicate tint of new life.

The air as it brushes your cheek has a balmy, caressing touch that invites you to stay out in the open, forget your troubles, and really enjoy life.

The World is Your Oyster

There is a feeling of independence—of fitness to meet creditably whatever may be in store for you—a knowledge that you can go where and when you please, free from the worries and discomforts of train, car or horse, with the unfailing dependability of your "Big Y" to insure a quick and pleasant trip, with no mechanical troubles to mar your enjoyment.

Over the Hills—

Ahead of you looms that big hill that other riders have told you is such a test for an engine—you remember their tales of how they pedalled, and pushed, and stalled their motors on that grade last year.

It's the first time you've tried that hill on your new Yale twin, but you open the throttle and speed toward it confidently, for what riding you have done so far has shown you the wonderful capability of your mount. As you go up the grade you wait for the motor to slow down and show signs of the hard pull—but it doesn't do it. Instead, when you open the throttle a little more on that steeper part near the top, it lets out another link of its immense reserve power and hurtles up the grade faster than ever.

And Far Away

As you shoot over the top and cut off power to coast down the other side, you find yourself wondering what those other riders found difficult about that hill—and then you remember that none of them rode a "Big Y", which explains it.

Riders Answer Call of the Open as Riding Season Starts

And there's a whole lot of satisfaction in knowing that you're riding a machine that will take you where the others can't go, and that you can "go them one better" at any game they want to try—speed, hills, sand, mud, or rough roads, for your Yale is built to win under just such difficulties as are met in give-and-take road riding.

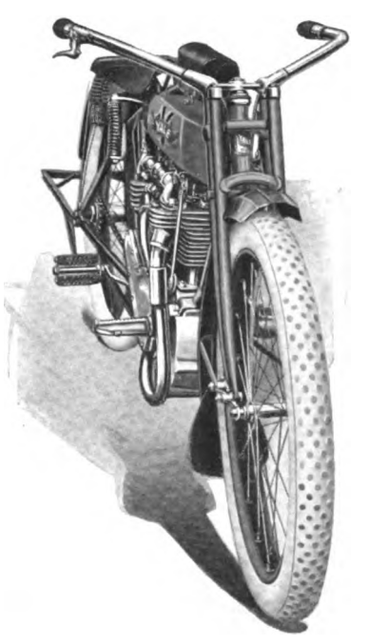
Getting a Six-Cylinder Goat

A few miles farther you have a little brush with a fellow who comes along with a big automobile. Just because it has a six-cylinder 60-horse engine stowed under its hood, and cost him about $5,000, he thinks that he can leave you behind easily, but—you don't feel that way.

Your right hand gives the gas to your big Yale twin, and you hold just even with him for a time, keeping several notches of speed up your sleeve for use when needed. He is the most surprised man you've met in a long time, and gets rather excited about it, for it's simply scandalous that a "big six" roadster like that, which the motorcar makers insisted was the fastest thing on wheels when they took his $5,000, should be matched so easily by a motorcycle—though he admits to himself that it's the raciest, classiest looking motorcycle he ever laid eyes on.

Then You Trim Him

He tries to jam his throttle lever over for a little more speed, but it's wide open now and he can't get another ounce out of his motor. Then you get sort of tired of playing with him, so you turn the throttle grip farther and shoot easily ahead, leaving him behind you in the midst of dust and amazement.



FACE to face with the fastest machine on the road, the 7-8 h. p. Yale twin. Note the substantial front fork of triple-stem design, with drop-forged crosshead connecting forksides, handlebars and central stem. Extra long, specially tempered springs that cannot break give luxurious comfort, and its great strength makes this the most dependable and enduring of all for hard use.

GETS ATTENTION IN EUROPE

Paris, May 10—Art C. Hanifin, the Chicago architect who is touring Europe on a 1913 Yale twin, is having great success. Hanifin's first trial of motorcycle riding was when he took his machine out of the crate after leaving the ship at Londonderry, Ireland, but he has had no trouble in handling it under all conditions.

His trip is for the purpose of studying the architecture of the countries here, and he would have no time for tinkering with mechanical troubles, so he uses a machine that has no mechanical troubles to tinker with.

His big twin attracts much attention wherever he goes, for its speedy, classy lines catch the eyes of the fastidious motorcyclists here, and they are surprised by the remarkable speed and power of the motor, which easily excels anything they had seen before. In England, where motorcycling is particularly popular, his "Big Y" was a center of interest wherever he went.

Hanifin is congratulating himself on his choice of machine for his journey, as he is so far from home that it would take a long time to get new parts if he was riding one of the cheap kind that need repairs frequently.

A Yale sale makes a Yale booster, for the rider has such a good machine that he can't help talking about it. He paid a fair price for quality and got surplus value for his money.

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Consolidated Mfg. Co.
1730 Fernwood Ave., Toledo

YALE BULLETIN

May 15, 1913

Preparing for a Season on the Road

THIS is the time when riders are deciding on their new mounts for the coming season—making up their minds as to what kind of machine to buy. Of course, considerable thought is given to the question, for everyone wants to get all he can for his money.

Right there many riders make mistakes. They are led to believe that if they can buy at a lower price they are getting more for their money than if they buy a Yale. The flaw in this is that they get so much more when they pay the Yale price that they really get much greater value for each dollar spent than if they purchased "cheap" machines

The Quality Standard

Before buying any machine, measure it by the quality standard. Inspect it carefully in every detail, to be sure that it will stand up under the strain of hard road use, and will not be found wanting because the maker wouldn't build it any better because he wanted to make bigger profits.

Inspect the motor. See if the cooling flanges of the twin are in line with the air currents—horizontal, as on the Yale, so that both cylinders will be cooled. If they are not, you probably will have an overheated rear cylinder.

Bearings

What kind of bearings? Be sure you get bronze bushings of generous size, made of special friction-proof alloy, such as are in Yale motors. Ball or roller bearings sound nice in catalogs, or when the salesman tells you about them, but neither gives sufficient bearing surface to sustain the heavy work that a motorcycle engine should handle.

Tips on Choosing a Machine That Will Give Most Satisfaction

As you sum up a list of all the good points that years of experience have shown to be desirable in a motorcycle, you will find that all of them are in the Yale. Then note the list of mistakes that have been made in motorcycle construction by various manufacturers, and the experiments and freak ideas that some of them are trying out on the riders—you will find none of these in Yale design.

All the Good Points

In the "Big Y" you get every really good and tested point known to motorcycle designers of this country and others, and at the same time you avoid all the wrong ideas that are so costly to riders after the machine is in use.

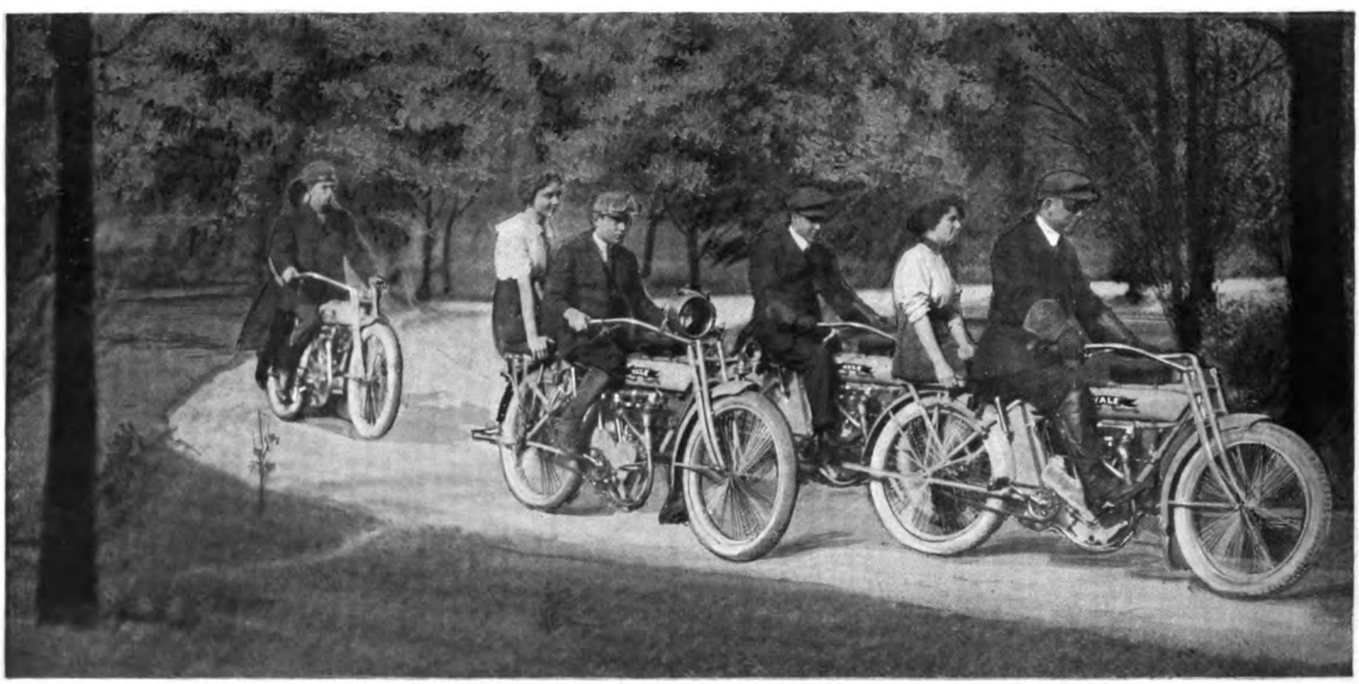
You can't afford to miss one good point, or to buy one bad one. The sure way of being right is to choose a Yale.

From Our Country Correspondents

Pikesville, May 12—Si Perkin's wife says she's agoing to leave him if he keeps on riding that there motorsycle he got last month, with them funny new springs on it, for Hez Jones and his wife with their Yale twin have trimmed Perkins and Mrs. Perkins every time they've went out tandem riding and Mrs. Perkins says she won't live no longer with any man what aint got gumption enough to get a Yale.

Five Points, May 9—Ezra Brown is slowly recovering at the hospitle over to the city, after getting hurt when the frame of his machene broke where there warnt no drop forged connection. His brother Jim was with him when it happened and says if Ez had been on a Yale, with drop-forged frame connections and reinforcements, there wouldn't have been no accident. Ezra says he'll sell his old boat to Abe Einstein, the junk man, and buy a Yale soon as he gets able to be about again. Good idea, Ezra.

Mount Eli, May 11—Bert Williams let Hiram Brooks, our well-known grocery and dry goods store keeper, see his (Williams') bank book yesterday and it most near took Hiram's breath. He says Bert's getting to be a regular capitalist. Bert has took the agency here for them Yale motorcycles that everybody's talking about and he's just getting rich selling them. He sold a twin day before yesterday to Deacon Summers' son George, and Zeke Myers is riding one he got last week and Joe Simpson's ordered one and three other parties that we could name are also proud possessors of this kind of machine. It might be added that Dr. Smith, the eminent physician of this city, is going to order a machine from Bert soon, cause he says Old Dobbin aint equal to the hurry-up calls he gets and he's got to be able to go to a patient quick when he is wanted. Doc is a mighty enterprising man and we can recommend that whenever you feel sick, call Doc Smith and you'll never need a doctor any more (cause Doc says he'll tell you to ride a Yale so the fresh air will keep you healthy).



THE Yale puts all the pleasure of the open country in reach of the riders. Yale tandem clubs all over the continent are enjoying outings now on every sunny holiday. It is the kind of recreation that puts color in the cheeks and sparkle in the eyes, with no danger of injury from buggy springs breaking or mechanical trouble from cheap construction, to spoil the pleasure of the trip.

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For Leadership Under Average Conditions

OF COURSE you want a machine that has enough speed to "trim" the other fellows on the road when occasion arises. You may not care much for speed all the time, but you like to know that you have it with you in case you do want it. And if you have a Yale twin you can be confident that it will give you all the speed you ask for—no matter how fast you like to go—whenever you open it up, for the big Yale has more speed than the most nervy rider dares turn wide open on the road. So when the time comes, you can give the throttle to your "Big Y" and leave everything on wheels in your dust.

For instance, one morning you start out for a ride. With your Yale twin purring softly you glide out of the city and onto the road leading out into the open country.

Meeting the Road-Burner

A little farther on, when you are loafing along at about 15 miles an hour, taking life easy and enjoying the scenery, another rider storms up from behind and shoots past you with throttle wide open, and as he passes he gives you a sort of pitying side glance that says plainly as words:

"You poor, slow little dub, don't you wish you had some speed such as I have?" His make of machine made some racing records with specially built track models, and that has made him think he has a really fast machine.

Then You "Show" Him

You don't care much for "burning up the road," as a general thing, but you simply can't resist the temptation to show that deluded speed-bug what real speed is, so you give the throttle grip a twist and with a deep bass roar your machine leaps in pursuit.

Machine with Road Ability, Not Track Records, Stays Ahead

The terrific power of your Yale twin motor picks up speed remarkably fast when you turn it loose, and within a few seconds the road is being reeled back under the wheels in a flying dun-colored blur to the accompaniment of the deep-toned "speed song" of the exhaust. The gap between you and the other man begins to narrow.

He hears you coming, steals a hasty glance over his shoulder to see you gaining hand over fist, then he flattens out on top of the tank and coaxes every inch of possible speed out of his "fast" twin.

Taking the Lead

But your machine was built for just such high-speed road use, and it is right in its element, and all the other man's efforts do not help him. Just to emphasize matters you give your throttle a little more opening and with your machine under perfect control (you feel safe and have no trouble in steering, for the fine balance makes the Yale handle beautifully at high speed) you flash past him at express-train speed.

As you go past you notice the trouble he has in steering, too. Although you are riding sure and safe at ten-miles-an-hour greater speed than the other man, he is wobbling perilously and has his hands full keeping the machine on the road for the less perfect balance and less carefully worked-out design of his frame and fork make control at high speed very hazardous. If something had broken—as you have heard of frail parts breaking—at the speed he was traveling — well, it's not nice to think of those things.

That Troublesome Sideplay

As it was, the sideplay gave him plenty of trouble at high speed, and you were on a good road, too. If it had been rough, where a machine is harder to handle, his mount would have been unmanageable, while your Yale would have been troubled little. The Y-A shock absorber, you know, is put where it insulates rider and machine most effectively from road jars, but where it **does not cause weakness** or allow sideplay.

And as you leave the other man in the dust behind you, you thank your lucky stars that you have a safe and sane shock absorber under you, for it makes you uncomfortable to think of a frame proving defective at such speed.

The Yale is built to do easily what other motorcycles cannot do at all—that's why it has won so decisively in all the big endurance runs held under most severe conditions.

Out in California, where the riders have a pretty good idea of what a motorcycle should be, they are taking to the Yale fast. In Los Angeles alone scores of riders have gotten rid of machines of other makes so as to buy Yales.

THE 1913 Yale twin is showing greater speed on the road than any other machine made. Its 61-inch motor develops remarkable speed and power, and the low center of gravity, perfect balance and unusual ease of steering make it easy to handle this machine at higher speeds than is possible with others on ordinary roads. The man on the Yale twin can easily leave behind him everything on wheels, for a turn of the throttle grip gives all the speed that the most daring rider will ask for. The flexibility of the motor delivers lots of power on low speed, too, so that the Yale plows steadily through mud or sand where other machines are stalled.

C

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Consolidated Mfg. Co.
1730 Fernwood Ave., Toledo

YALE BULLETIN

May 15, 1913

Dealers Running Ahead of Schedule

LAST FALL, before the tremendous $125,000 advertising campaign of the Yale was started, and before the 1913 models were announced, the prediction was made that the "Big Y" would be the easiest machine on earth to sell.

Now, with the active riding season just starting, this prediction is coming true in a most emphatic way. Yale dealers have been making sales in volumes never before approached. Several have already sold more machines than their original contracts called for, and dozens of others have delivered more than 75 per cent of their allotted number. Here are just a few instances:

J. J. Weber, of Dorrance, Kan., contracted last fall for the number of Yales he thought he could sell in 1913, but before the middle of March he had sold two more than his contract calls for and was still taking orders. Seeing the swarm of orders ahead, he doubled his contract on March 21st, and insists he will sell more than that before the summer is over.

Ray Bros., of Louisville, Ky., are also among those who already have sold more Yales than they expected to all season. The Bluegrass country knows all about fast horses and apparently has learned to know fast motorcycles, for it is very enthusiastic about the "Big Y".

It has kept W. C. Wood, of Fonda, Ia., busy increasing contracts to keep pace with his sales. Last winter he signed the original contract for what he considered the number of Yales he could sell. About a month ago he had sold all of them, so he asked to have his contract increased more than half.

It was granted, but he straightway sold all the machines covered by the increase, and applied for another increase equal in amount to his first contract. By the present time those machines are about all gone too, so that Wood will probably want another increase soon—if the rush of business will allow the factory any chance to give him more machines than his present contract calls for.

DO IT NOW!

FOR a successful season on the road, get the machine of greatest road ability. Now is the time to get your order filled, for only so many Yales can be built this season, you know, and if you wait too long there may be none left for you. Get your order in before your agent has sold all machines on his contract, for we cannot guarantee delivery of more than the contracted number of machines to any dealer. Several agents have already exceeded their original contracts, but had wisely given specifications far in advance, so that the factory was able to take care of them. But extra machines cannot be allowed on very many contracts, so get your order in before your dealer has sold his allotment.

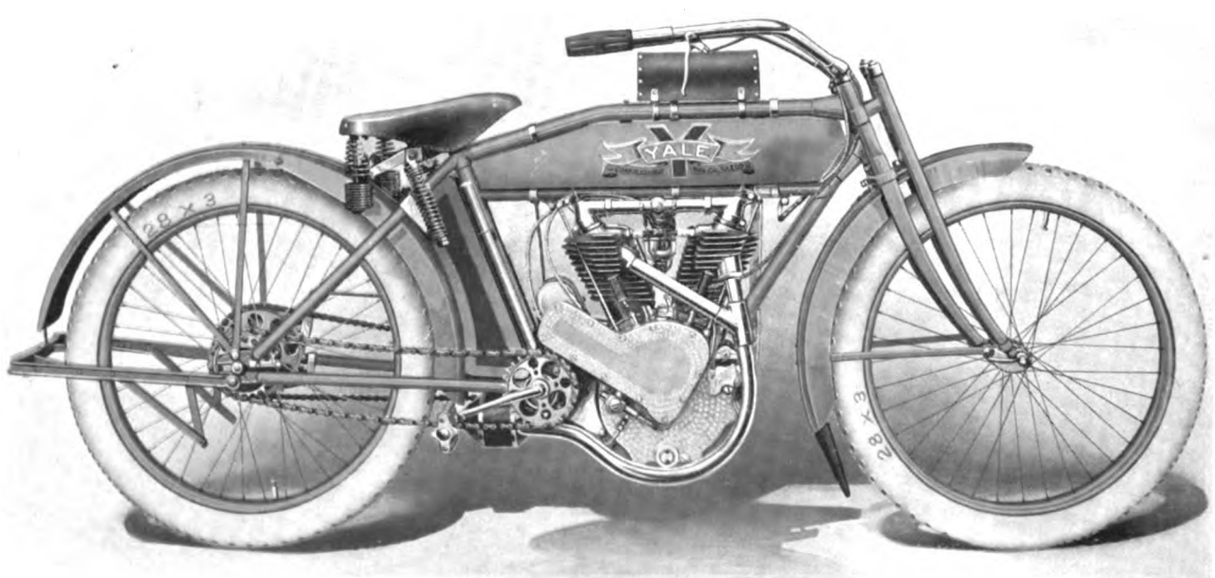
Over in Rochester, N. Y., John Kimpson is Yale agent, and glad of it. After the New York Show, Kimpson contracted for what he felt sure was all the machines he could sell during the entire season, but he would be a sad man now if he had been held to that original contract, for he already has sold and delivered more than the contracted number.

Down in Texas, W. E. Britain signed a contract about two months ago for all the machines he thought he could sell during the season. But he soon found his mistake, for just two weeks after signing he wrote to the factory to more than double his contract, for he had sold all the machines covered by the original one. His increase was granted, but that didn't hold him very long, for a few weeks ago he had sold all the machines granted on the increase and wanted to raise his bid again—this last increase being for more than the total of the original contract plus the first addition. At present he has taken nearly five times as many machines as his first contract called for, and is still going strong.

The Howard Cycle Co., Trenton, N. J., has rather surprised itself by the volume of its sales. It has already sold more Yales than its first 1913 contract called for—and that was no little contract, either.

Perry Rowen has been "whooping 'em" up out in Oklahoma—Renfrow is his town. He has sold all the machines on his original contract and is now making "excess sales," and watches his soaring bank account with an expansive smile.

C. D. Freeman, El Paso, Tex., has already delivered more than twice the number of 1913 Yales that he contracted for at first.



BIG 7-8 h. p. Yale twin. Note the racy, attractive lines of this machine. Long-stroke motor that gives a pull of 10 real horsepower at the rear wheel on actual test. Lubrication by positive mechanical oil pump of plunger type. Large separate tanks holding three gallons of gasoline and a gallon of oil. Chain or V belt drive—no motorcycle-size flat belt could hold such tremendous power. Yale cushion fork. Y-A shock absorber. Three-inch tires. Hinged rear mudgard. Footrests with auxiliary brake pedal. **$275**

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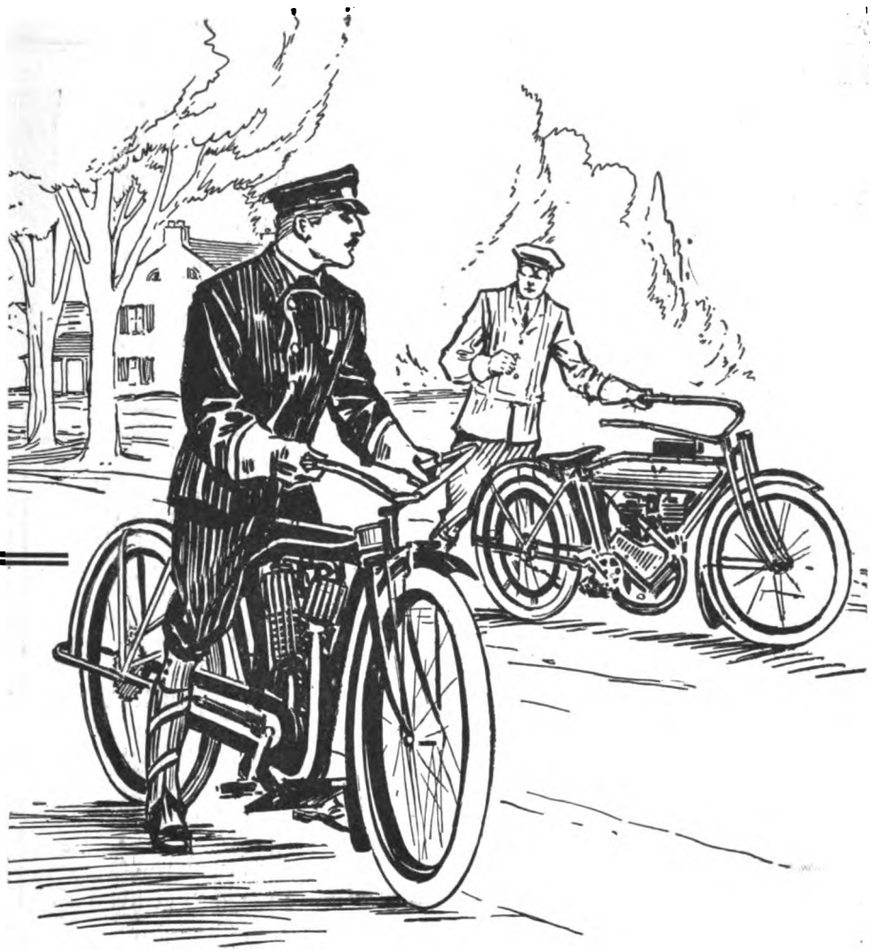

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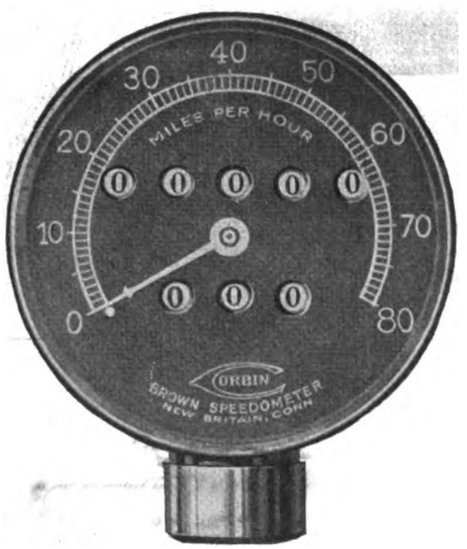
"THE SPEEDOMETER OF ABSOLUTE ACCURACY"

"Not quite 20 miles," says the man with the average speedometer.

"Actually 20," says the man with the Corbin-Brown—the centrifugal principle leaves no room for doubt.



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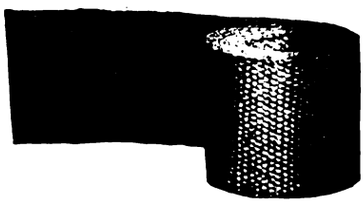

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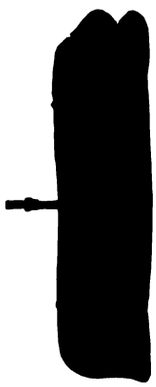

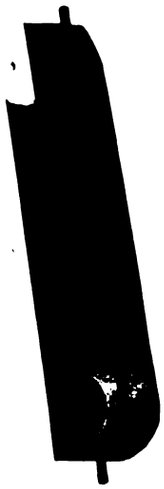

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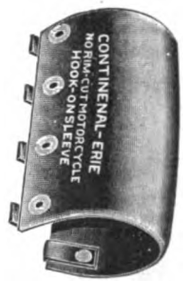

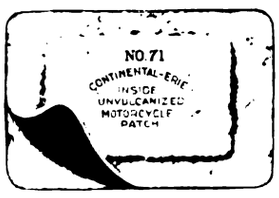

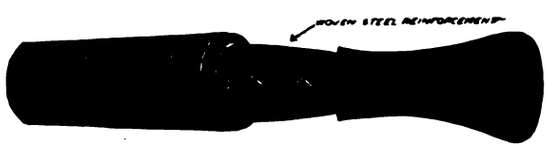

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The Spring Touring Season is again in full swing! And again Continental-Erie Tires will convince their users of the value of **concentrated** tire manufacturing—why they are productive of GREATER SERVICE.

No tire manufacturer making several different styles of tread can afford to put the quality of materials, the concentrated attention into his product that we can in

Continental-Erie Motorcycle Tires

The heavy, clearly cut studs, the highest grade of LONG STAPLE Sea Island Cotton and the extra thickness of tread make for greater durability, greater mileage, greater service. Day after day more riders are learning the true meaning of tire satisfaction. One enthusiastic rider wrote us "I firmly believe that the only reason CONTINENTAL-ERIE TIRES are not exclusively used on every motorcycle is that not every manufacturer **knows** the incomparable service to be obtained from them." ASK THE JOBBER—HE KNOWS.

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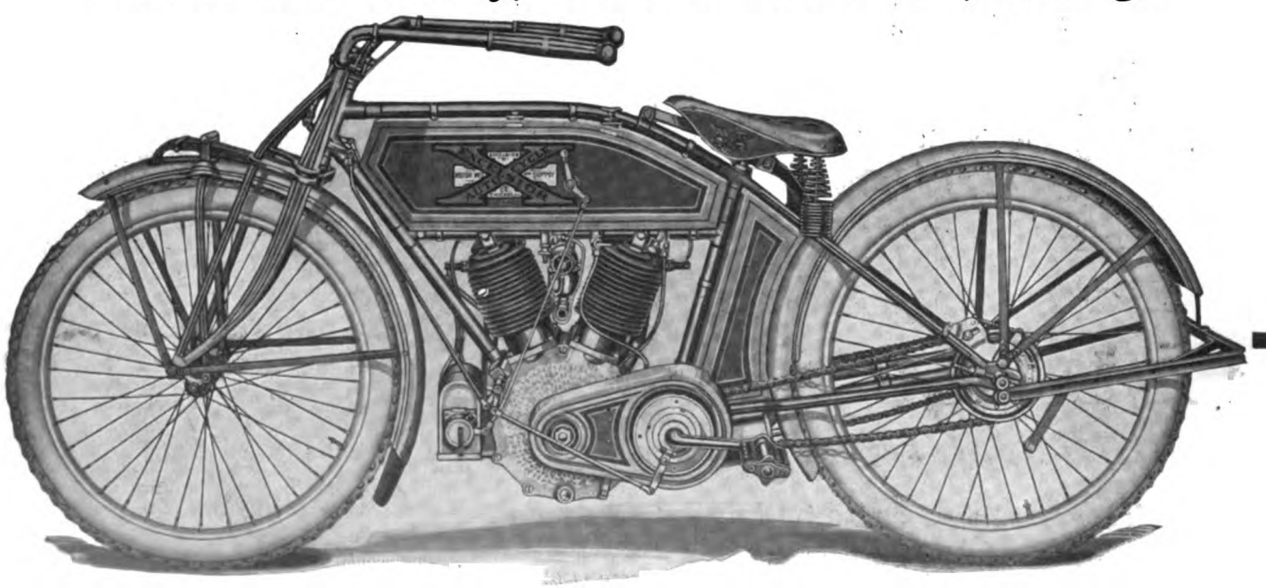

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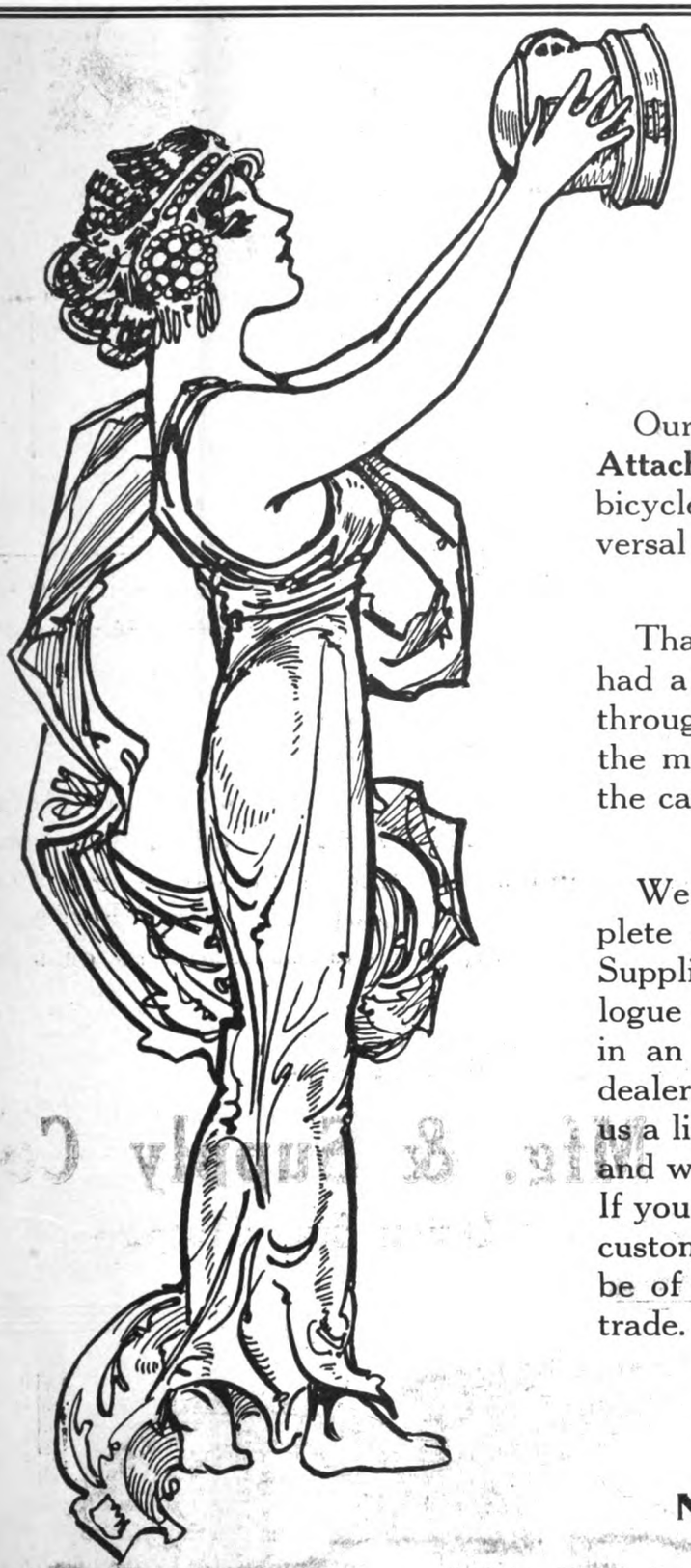

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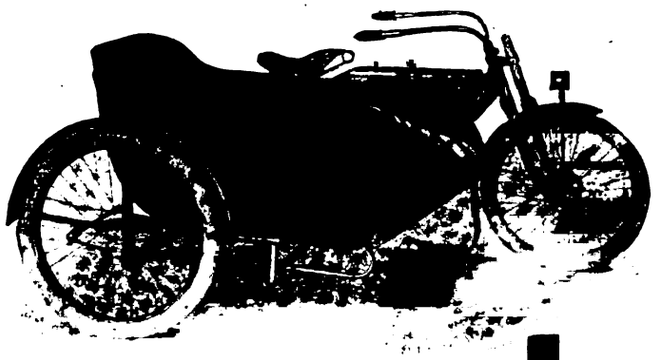

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Autocar body, with extra van body interchangeable on same chassis. Combination price, both bodies and chassis, complete $150.00. Deliveries on this model can be made within 8 days.

Universal Sidecars are a practical demonstration of how highly the sidecar really can be developed. They have brought to light possibilities in elegance of appearance, strength of construction and all-around "class" that were undreamed of before UNIVERSALS entered the field. We show here two models that combine all the comfort, roominess, luxuriousness and durability of a high priced automobile.

Autocar Model

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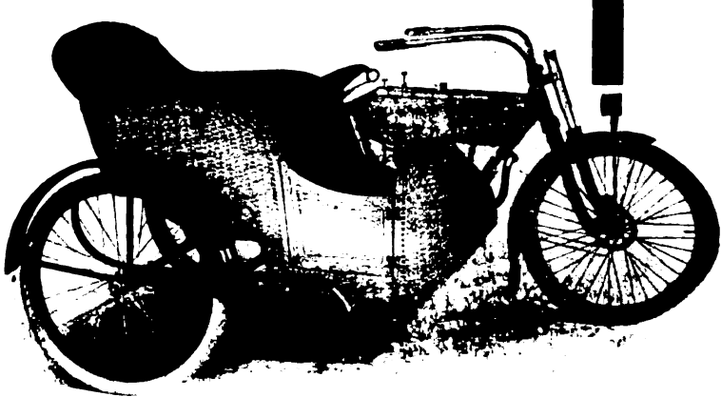
Reed Body Model

Here is a beautifully light and compact model which possesses all the charm, comfort and individuality that can be built into a sidecar. It is made of the finest imported reed, stained in rich baronial brown and upholstered in highest quality dark red imitation leather. The frame is effectually braced and reinforced, a floor board also adds to this strength and prevents "weaving." There is room for a tool and luggage receptacle under the seat. Mounted on chassis No. 2, with special "C" type steel springs, which exhaustive tests have shown to give the maximum of easy riding. There is nothing unfinished about this model—nothing left to chance. It is perfect in every way. Lightness, comfort, strength and durability are combined in overwhelming quantity in each UNIVERSAL Sidecar.

Carload shipments (30 machines) in 3 days from receipt of order

GREYHOUND MOTOR COMPANY

1440 NIAGARA ST.
BUFFALO, N. Y.
U. S. A.



S. D. Model **$85**
Also made in open body, price..... **70**

Deliveries can be made immediately on these models.

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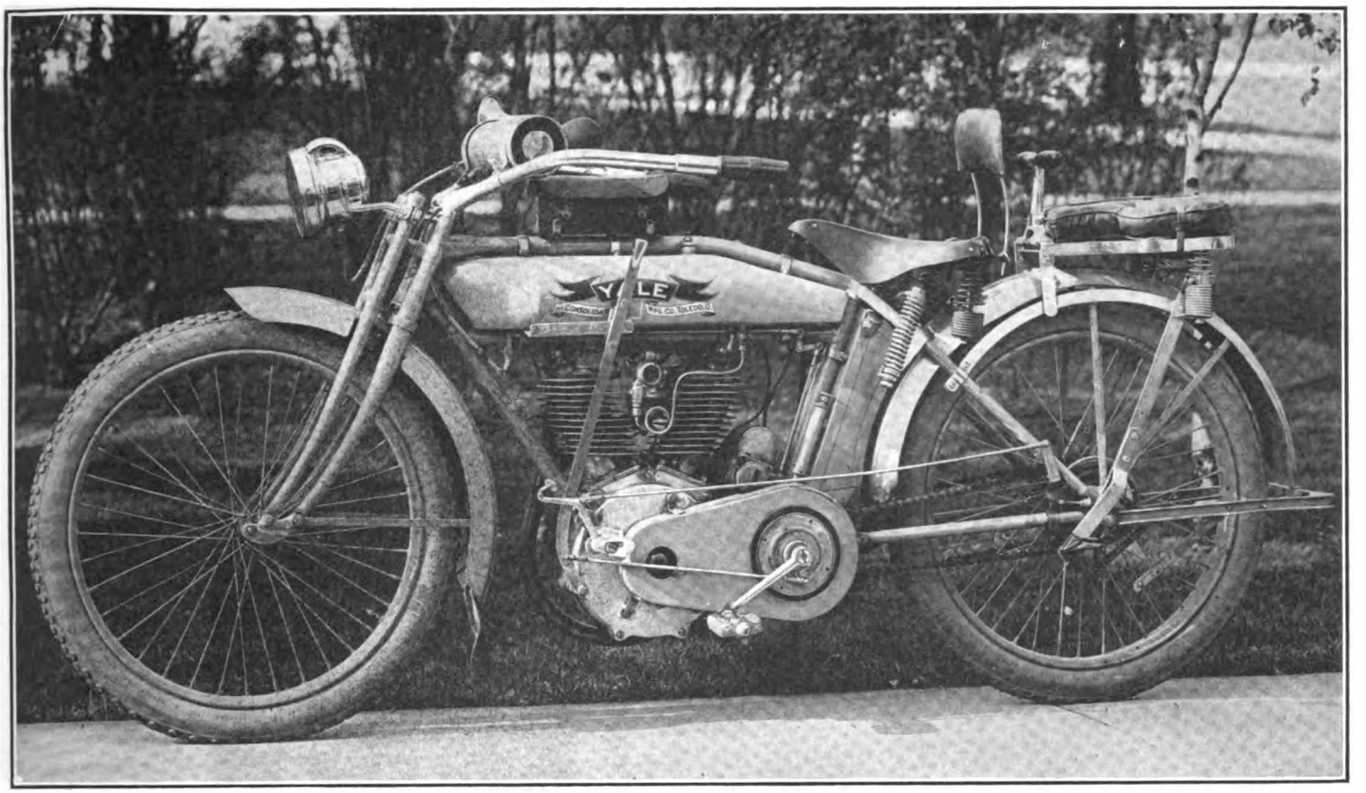
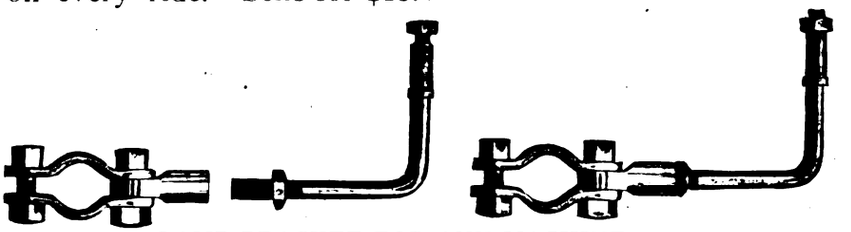


Fully Equipped

For genuine comfort and real service, Fentress-Newton specialties are necessary equipment. The F-N combination tandem attachment gives luxury to the passenger—ask anyone who has ridden it. Its low riding position makes steering easy. The carefully-designed shape of the seat, narrow in front, and the compound springs insure enjoyment on every ride. Sells for $15.

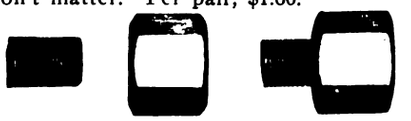


LAMP BRACKET FOR ANY MACHINE

The only lamp bracket that will fit any machine. Adiustable in all directions. Shape of handlebars don't matter. Per pair, $1.60.

F-N BACKREST

This backrest gives automobile luxury to the motorcyclist and relieves strain on the back on long tours. Attached or removed in a moment's time. Price, $2.60.



F-N EXTENSION NUTS

The F-N Extension Nut, for attaching tandems or luggage carrier, has a screw insert that acts as lock for the nut. Made in these sizes: ½ x 24, ½ x 20, and 9/16 x 24. 40 cents per pair.

If you are not using Fentress-Newton equipment you are not getting the full benefit of your machine. Find out about this—write for our catalog.

FENTRESS-NEWTON MFG. CO. 429-431 Bagg Street DETROIT, MICH.

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What is True Transmission Efficiency ?

A transmission, to be truly efficient, must, primarily, require little or no attention. It must always be in tune with the motor. It must be economical. It must effect minimum wear on motor bearings and gears. It must be clean. It must be simple in construction; hence, less liable to get out of order. It must be silent.

The famous "G & K Belt Talks" have demonstrated by clear, logical, convincing reasoning, the preponderance of these true efficiency traits in

SPARTAN BELTS

The Economical-Comfortable Efficient-Transmission

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These scientific treatises were corroborated by floods of enthusiastic letters from dealers throughout the country—from dealers who **know.** Some of these letters have been published in our former advertisements. Others will follow.

Riders! Do not underestimate the importance of these dealers' opinions. Their mechanical knowledge, their long experience, eminently qualifies them to speak authoritatively on the transmission question. These dealers have the future of the motorcycle too much at heart to fail to do their utmost to put the rider on the right transmission path. They have endorsed our statements because they know them to be true. That is why the utmost confidence should be attached to their endorsements of our claims, which in substance are as follows:

SPARTAN BELT TRANSMISSION causes less trouble and expense than other forms in that it is not seriously affected by a misalignment, which causes other transmissions to wear appreciably and frequently results in costly replacements.

SPARTAN BELT TRANSMISSION insures minimum wear of the power plant and frame, as its flexibility absorbs all road shocks, which, by a more positive method of transmission, are communicated to the entire machine.

SPARTAN BELT TRANSMISSION, in contrast to a more positive method of transmission, causes less wear to the bearings and gear than any other drive, because of its slight slippage under abnormal loads, such as quick starting, etc.

SPARTAN BELT TRANSMISSION assures a high degree of comfort on account of its smooth action when starting, and its elimination of overload shocks when accelerating or diminishing speed.

SPARTAN BELT TRANSMISSION is more cleanly than other transmissions, requiring less frequent lubrication, and the use of a lubricant more easily and neatly applied.

SPARTAN BELT TRANSMISSION is more silent than other transmissions, as no metal touches the pulleys—in revolution leather touches metal, not metal to metal. Furthermore, the SPARTAN BELT in its makeup has no small metal parts to loosen, rattle and clank.

If you have confidence in your dealer's judgment, if you take his earnest advice, you will use the SPARTAN BELT TRANSMISSION.

SPARTAN BELTS ARE USED ON 90% OF ALL BELT-DRIVEN MOTORCYCLES, BECAUSE EXPERIENCE HAS PROVEN TO THE THOUSANDS OF SPARTAN USERS THAT JUST AS THE BELT IS THE HIGHEST AND MOST EFFECTIVE FORM OF TRANSMISSION, THE SPARTAN RANKS FIRST IN PERFECTION.

Our 1913 SPARTAN CATALOG describes our complete line of Spartan Belts and Accessories. Your copy is waiting for you.

The Graton & Knight Mfg. Co., Worcester, Mass.

Branches in All Principal Cities

Canadian Distributors, CANADA CYCLE AND MOTOR COMPANY, West Toronto—Winnipeg—Vancouver

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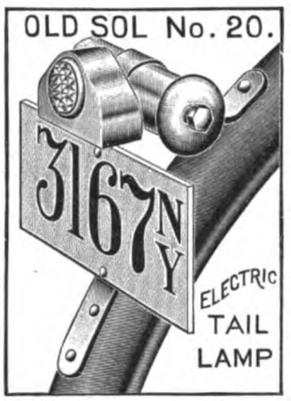
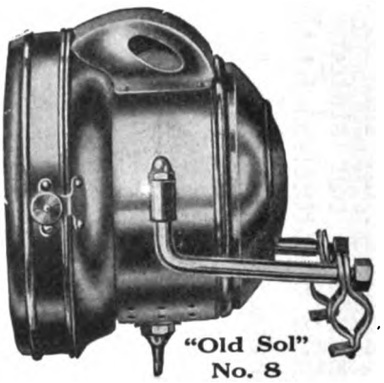


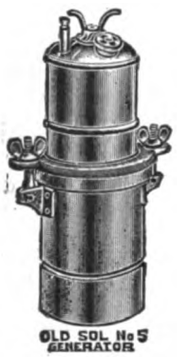
A Brilliant Aggregation of Light Throwers

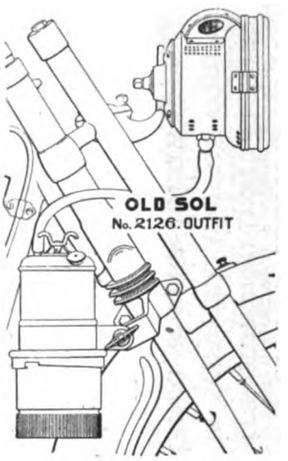

"Old Sol" No. 8

The "Old Sol" line presents an aggregation of light-throwers, which for efficiency, variety and low price is absolutely without an equal on the face of the earth.

We are continually evolving new "stunts." Among our latest successes is the now famous No. 20 Electrical Tail Light, which has achieved a tremendous vogue in an exceedingly short space of time. Its economy, efficiency and low cost make it one of the "best sellers" of the year.

We have now brought upon the market our OLD SOL No. 29, an Electric HEAD-


OLD SOL No 5 GENERATOR

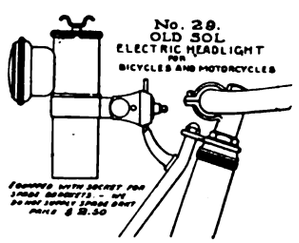


Price $4.00

WITH THE "OLD SOL" MOTORCYCLE LAMPS OVERSIZE LENS

LIGHT for bicycles and motorcycles. The well-known "Old Sol" quality and efficiency is represented in these new models to an exceptionally high degree.

The dealer who handles the Old Sol Line is assured a remarkable influx of sales—sales which are continually on the increase, because day in and day out some "Old Sol" Lamp is demonstrating its remarkable efficiency to an enthusiastic user, whose advice always is



"Get an OLD SOL The Sun's Only Rival"

Our complete line is illustrated and described in our booklet, which is yours for the asking.

Hawthorne Mfg. Co., Ltd.

35 Spruce Street, Bridgeport, Conn.

Pollock Mfg. Company, Ltd., Berlin, Ontario, Canada

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Prest-O-Lite
For Motorcycles

Join the Night Riders!

In the day time ruts, rocks, bumps and other chances for a spill don't bother you much.

But, by night, how different if you have to depend on a poor treacherous light! A sudden bump and your feeble light may go out, leaving you at the mercy of ruts, bumps, wash-outs, and what not. You creep along trembling and cold-footed, while the automobile you dusted so handily during the afternoon sweeps by you.

You can change all this EASILY by adding Prest-O-Lite to your equipment.

Prest-O-Lite is the ONE practical dependable light for motorcycles; turns on and off like a gas-jet, and gives a brilliant, uniform light that stays with you through thick and thin. Has no troubles and costs less to own and use than any other system of brilliant lighting.

Yet Prest-O-Lite costs no more to use than the troublesome gas generator. One night accident might cost you more than several years of Prest-O-Lite protection.

A Splendid Buy

The money you pay for Prest-O-Lite is not really **spent but invested.** A genuine Prest-O-Lite never becomes second-hand. It is in such universal use and demand that it can always be sold for about what you pay for it.

Our 30 Day Trial Offer

Put Prest-O-Lite on your machine. Use it for 30 days on all kinds of roads and conditions. At the end of that time if you feel you can get along without it, return it to the dealer and your money will be refunded promptly and without argument. Can anything be fairer?

The Prest-O-Lite Co. **246 East South Street Indianapolis, Ind.**

Canadian General Offices and Factory, Merritton, Ont.
Exchange Agencies Everywhere

TO DEALERS: There are five times as many motorcycle Prest-O-Lites in use today as there were one year ago. Are you getting your share of this business?

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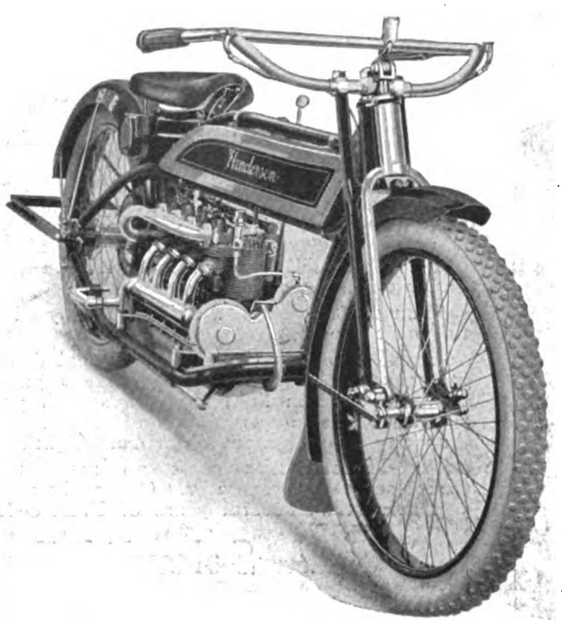
Let the Henderson sweep this season as a



The 1913 Henderson 8 H. P., 4 cylinders free engine, chain drive **$325**

We mean just what we say in the headline.

The Henderson will sweep you into the front rank, whether you are a dealer or a rider.

The Henderson itself is in the front rank—and this, mind you, after one season before the public.

Its rise is the most remarkable rise to popularity the motorcycle industry has known.

Moreover, its popularity is permanent. It is increasing, both in sections where the Henderson is known and in new territories.

Get in touch for full particulars about the Henderson; and about your own territory if you are a dealer.

Henderson Motorcycle Company, 1158 Cass Ave., Detroit, Mich.

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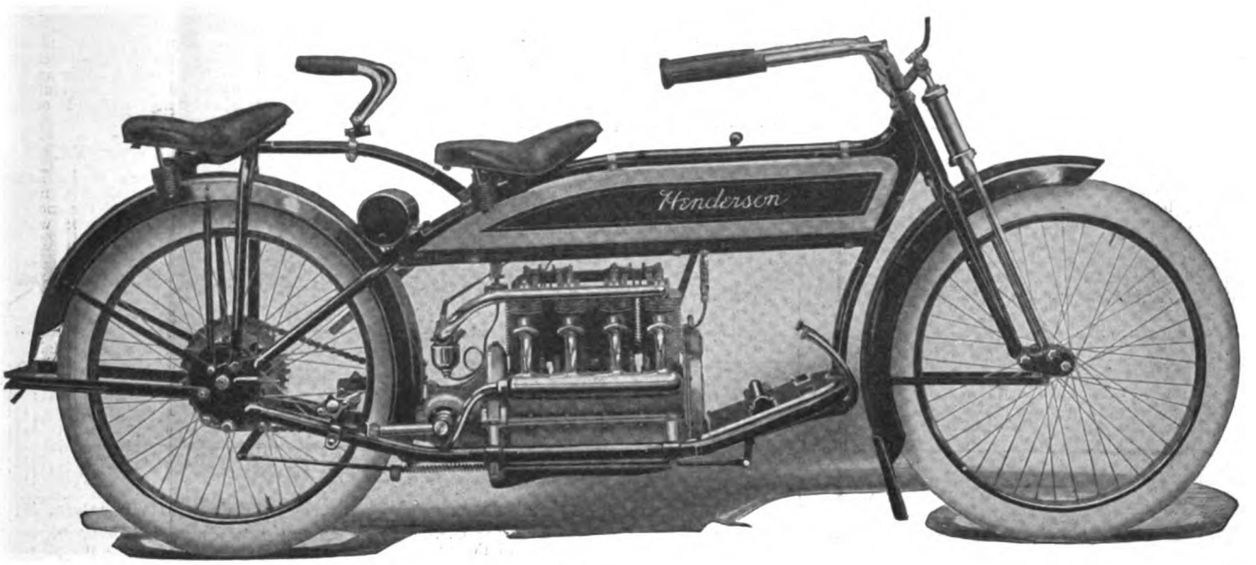
you into the front rank dealer or a rider



Tandem attachment complete with grips, foot rests, skirt guard, etc..... **$25**

Why has the Henderson made its remarkable strides?

Because it is a comfortable machine—one that rides without excessive vibration.

Because it is powerful—8 H. P. in its four cylinders—and because it is flexible to handle in traffic, quick on the pick-up and getaway and quiet in its operation.

Because these advantages are not possible in so great degree with any single or twin.

Because of new and better ideas of design and construction that carry a distinct appeal to the discriminating buyer.

Try out the Henderson, and see for yourself the great advantages of four cylinders.

Henderson Motorcycle Company, 1158 Cass Ave., Detroit, Mich.

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Twenty Straight Tips From Pope Users

Here's your chance, Mr. Dealer, to get a line on POPE MOTORCYCLES. Below we print a symposium of dealers' and riders' opinions regarding Models L, K and H—twenty straight tips from satisfied users. Our files are full of other testimonials just as good. Could anything be more significant or convincing to the man who wants to be shown than these reports from the front?

Plenty of Rooters for the Pope "Twin"

(1) From John H. Kuenzli, Milwaukee, Wis.

"The Pope Model L is the most flexible, powerful and speedy twin I ever rode in all my days. Saturday I talked Pope to a shrewd, practical man, He said nothing, and the reason for this I expected was that he wanted to be shown. I took him out for a ride. When we returned I took his money."

(2) From Jesse J. Lesh, Chattanooga, Tenn.

"The twin is doing very good work and seems to have all kinds of power. Last Saturday I took a 180-pound man behind me to the top of Lookout Mountain. The mountain is 5 miles long and has 68 curves from the bottom to the top, and at some places it is almost straight up, but the twin climbed it with all ease."

(3) From Myron L. Foote, Rochester, N. Y.

"Just a few lines in regard to the Pope twin I am riding. I have ridden motorcycles for six years and nearly all kinds of machines, as I was a repair man and had to do testing. I received one of your twins last Monday and am pleased to say that it is the easiest handled motorcycle I ever sat on. I can get it down to 5 miles an hour on a level street without slipping the clutch. It has power to throw away and all kinds of speed."

(4) From R. G. Miller, Hornell, N. Y.

"Received the Model L motorcycle all O. K. and am more than pleased with it. Everyone who has seen it pronounces it the finest in town. I intended to keep this machine for a demonstrator, but a fellow coaxed so hard that I had to let it go today, so that leaves me without a machine again. If possible, wish you would ship the other two at once."

(5) From H. C. Fronheiser, Richland Centre, Pa.

"I had the Model L machine out nearly all Sunday and was doing fine under all road conditions. We passed the Lehigh Mountains both ways, and the mountains seemed to be about as much to this machine—Model L 7-8 h. p. chain drive—as a small pretzel would seem to one when real hungry, with but little effect on one."

(6) From R. Gallaher, Easton, Pa.

"I have received motorcycle Model L and found it in good condition and am very much pleased with the machine. Have tried the motor and find everything satisfactory. Everyone who sees the machine speaks well of it."

(7) From H. Ferguson, Grand Rapids, Mich.

"The Pope twin is making a hit with everybody who sees it. Last night a bunch of us were out for a ride. We all carried passengers. We came to a hill about ⅓ of a mile long and very steep. The other machines made a race for the hill and were some 3 or 4 rods ahead when I opened up. When we got to the top of the hill there was not a machine within 200 ft. of the Pope. I think we must have been going close to 60 miles an hour."

(8) From C. C. Simmons, Oakland, Cal.

"The twin is without a question of a doubt the classiest looking twin on the market. The sample showed up very satisfactory on the hills and is above the average in this respect. She is in my estimation a *bear cat* of a motorcycle."

(9)

"I received my first Pope twin a week ago today and I must say that it is certainly a dandy. It started with ¼ of a turn of the pedal. I will say that in my opinion it is the best and most powerful twin of today. The U. S. Special Delivery boys are all crazy about same and are all talking about getting a Pope twin."

Dealers Endorse Powerful Model K

(10) From W. M. Chelf, Leoti, Kas.

"I tell you that the Big 4 skins them all. We can take them to a cleaning with it at anything that they want to go at."

(11) From J. H. Kuenzli, Milwaukee, Wis.

"The Model K 4 horsepower which is in the U. S. Special Delivery service is cleaning up all the new 1913 5 h. p. machines in this service."

(12) A. Ross Rider, New Lebanon, N. Y.

"A young man owning a Model K is already a terror to everyone living along the pike on account of the way he burns up the road, and must say that the performance of this Model K has been wonderful, because the chap can ride it up the side of a house, hills having no terror for him whatever."

(13) From T. B. Hallbourg's, Clearwater, Fla.

"Mr. Kennard of Tampa rode the Model K to Clearwater yesterday. A friend went along with him and rode a twin of another make. On the trip they met some other riders, and this P. M. they dropped into Kennard's store and told about meeting him on the road and said the K would run away from the twin like it was tied to a stump."

(14) From New Eng. Motorcycle Co., Boston, Mass.

"I consider the Pope Model K one of the best motorcycle propositions that I have ever seen and it is undoubtedly the best buy in a single cylinder machine in the market today."

(15) From S. E. Matthews, Austin Centre, Tex.

"The Pope Big 4 is a crackerjack. I believe it's the best that can be made for the money. Mine has given perfect satisfaction. Pulls everything, slow or fast. It is worth $50 more than you sell it for."

Pope Model H Popular Everywhere

(16) From Dallas Rubber & Cycle Co., Dallas, Tex.

"I cannot place the Pope too high. It is as near fool-proof and perfect as a motor could be. Also have had 6 in our service for the last 18 months, 24 hours a day. Rain or shine, hot or cold, have no effect on them, and we lay our success in our business to the Pope. For hill-climbing they leave them all. You cannot overload them. We have tried nearly every make and could not keep them because the repair bills were too much."

(17) From Joseph Lesage, Cuoro, Tex.

"I hardly know how to find words to express how I am pleased with my Pope. Have ridden it about 2½ months now, covering about 1,500 miles, and I want to tell you that I have not had a bit of trouble with my motor, and that is something that many others here cannot say."

(18) From O. C. Berger, Reedley, Cal.

"I have ridden and repaired different machines, new and old, but can say from experience have found nothing to stand with the Pope for quality, as I have ridden my Pope over 17 months and with very little expense beside gas and oil."

(19) From A. Ledger, Horton, Kan.

"I rode a light-weight Model H last summer which gave me perfect satisfaction in all ways. I always rode with several fellows who had machines of same h. p., and I could go places where they couldn't think of trying to go, and for speed, I was always in the lead. Of course I was not afraid to give her throttle. I used to have one sitting on the luggage carrier nearly all the time, and I can say I never stalled on a hill with two of us on."

(20) From Walter L. Hotopp, Jersey City, N. J.

"Have just completed the most successful season on a 1912 Pope. Little did I dream of the quality this light machine can give. During the whole 9 months of continuous service I hadn't one minute's trouble or delay—it was always ready for me. I use it mostly in my business to see my customers, as I cannot make the proper car connections, so bought the Pope. Now I can do 3 days' work in 1 day which by car took me 3 actual days. It is the most serviceable and always ready for the roughest kind of use you can give it. You may have heard of Dan Kelley's hill; it is one of the roughest in this section. Why, it is a cinch for the Pope."

DEALERS—To the right dealers in the right localities we have an attractive proposition to offer. Send for catalog and further particulars.

MODEL L, "Twin," 7-8 H. P.	**$250**	**MODEL K, 4 H. P. (Belt Drive)**	**$200**
MODEL M, 5 H. P. (Chain Drive)	**215**	**MODEL H, Lightweight**	**165**

The Pope Manufacturing Company - Hartford, Conn.

Pacific Coast Motorcycle Distributors:

F. P. Keenan, Portland, Ore., Northwest

Kimball-Upson Co., Sacramento, Northern California and Nevada.

C. L. Smith, Los Angeles, Southern California.

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HERZ PLUG

"Bougie Mercedes"

Racing men and other motorcyclists who know that it pays to be particular about their Spark Plugs have long insisted upon using HERZ PLUGS.

These Plugs are now in their twentieth year—twenty years showing a continuous record of efficiency and steady improvement!

The new model has a completely protected terminal which renders it dustproof and waterproof and obviates the possibility of short-circuiting.

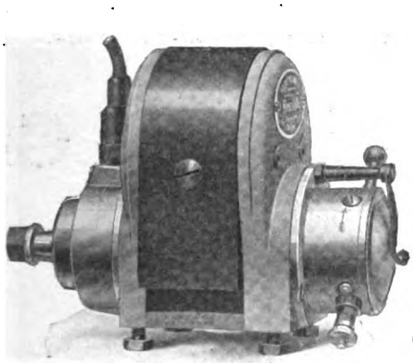
Other important Herz features are the Four Sparking Points, the Platinum-alloy Electrode, the Self-cleaning construction, and above all the Unbreakable Blue Enameled Double Stone Insulation instead of porcelain. Every Herz Plug is

GUARANTEED A FULL YEAR

HERZ MAGNETO is as far superior to other Magnetos as HERZ PLUG is to other plugs. In the official English test against 15 competitors, it was adjudged the most efficient Magneto of its size and weight by 25%.

HERZ MAGNETO is small and light, and absolutely protected against atmospheric conditions, dust and moisture. It was run completely submerged in water for 16 days, at this winter's New York and Chicago Shows.

The strength and reliability of HERZ MAGNETO is attested by the fact that it is used by so many racing men—among others, by Lee Humiston when he made his new world's records from 1 to 100 miles.



HERZ MAGNETO

HERZ & CO., 295 Lafayette St., NEW YORK

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The One Perfect

THE 300-mile Savannah Endurance Contest, April 26th it pays to put the kind of stuff in a motorcycle that

Two Harley-Davidson "5-35" singles started in this contest and both finished on time. The average score of these machines was higher than that of any other make. After a most rigid technical examination by experts both machines were pronounced to be in absolutely perfect condition, not even a nut or screw was loose

The Harley-Davidson was the only single cylinder machine to score perfect and was the only single made good enough to stand up and travel along with the twins for the hard 300-mile drive. Eight different machines rated at 7 H. P. or better, and representing five different makes, were unable to stand the grind that the Harley-

Harley-Davidson

Producers of High Grade

452 C Street

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Single—the "5-35"

and 27th, was a splendid demonstration of the fact that enters into the makeup of the Harley-Davidson.

anywhere. One machine was awarded a perfect score of 1000 points. The other machine, although it in itself was in perfect condition, was given 995 points because its rider (whose weight was over 250 pounds) had violated the rules of the run and dismounted outside of a control.

Davidson "5-35" singles stood.
It is a mechanical impossibility for any motorcycle built of material inferior to that of the Harley-Davidson, or in which the workmanship is inferior, to give the same service as the Harley-Davidson.

Motor Company

Motorcycles for Eleven Years

Milwaukee, Wisconsin

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NORTHERN MOTOR SUPPLIES LIMITED
Edmonton, Canada

February 26 1913.

Jenkins & Co.,
Des Moines, Iowa.

Gentlemen:

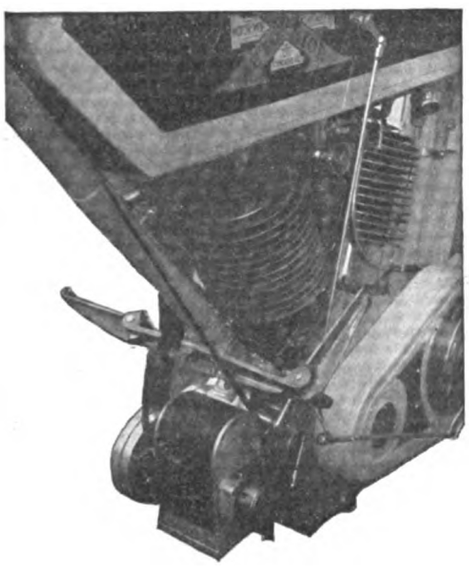
Yours of the 18th received. The Indian riders here want your Jenco Indian carrier. Please ship thirty by freight immediately.

Yours truly,
Northern Motor Supplies Ltd.
Per Manager.

ONE OF THE MANY ORDERS RECEIVED FROM FOREIGN COUNTRIES.

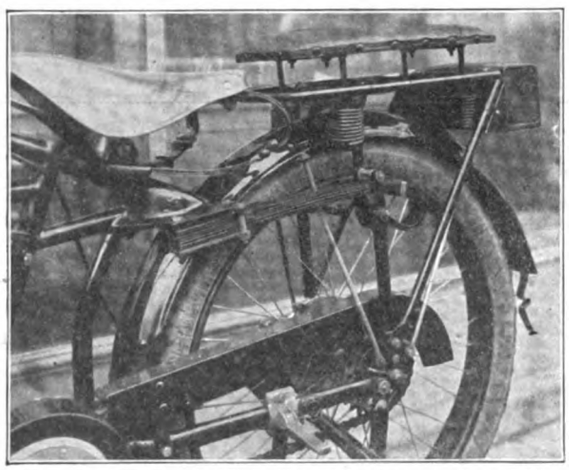
Jen-Co Specialties Are Right

Study them over carefully. The Jen-Co Indian carrier is built to fit 1913 Indians, Merkels and Reading-Standards. It stands to reason that you ride much easier with suspension springs than with compression springs. Springs on our carriers are adjustable to weight of person. Note the fine folding foot rests in cut. The position is great. You can clamp the driver with your knees and hold on tight. Jen-Co spring carrier is made to fit all machines. Made on same principle as Indian carrier except that carrier frame and all is furnished either nickeled or enameled to match any machine. This carrier is built strong and springs are adjustable to weight of person. The neatly made pad shown in cut is made to fit this carrier exactly, $1.00 extra. Jen-Co spring tandem is made to fit any machine. The springs are long and flexible. They play inside of a tube which is hid from view by the large mainstays. Built on the same principle as Excelsior and Harley spring seat posts. A strong feature is that you are not thrown into the air after hitting a bump. You come back just as easy as you went down.



JEN-CO FOOT RESTS FOR ALL MACHINES

Price $2.50



JEN-CO INDIAN CARRIER

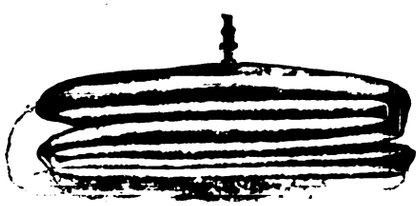
Price with Foot Rests $5.50
Price without Foot Rests 4.50

VERY BEST OIL

purchased in car load lots, therefore these prices per gallon:

½ gal.	cans	$0.45
1 gal.	cans	.75
5 gal.	cans	.60
½ bbl.	steel	.55

Heavy or Light.



JEN-CO RED TUBES

Prices 10% Lower. Goods Better.

CUSHION FOR JEN-CO SPRING CARRIER

Price $1.00

JEN-CO INDIAN SPRING SEAT POST for 1910-11-12 and 13 Indians

Price $4.00

JENKINS & COMPANY,

Largest Exclusive Motorcycle

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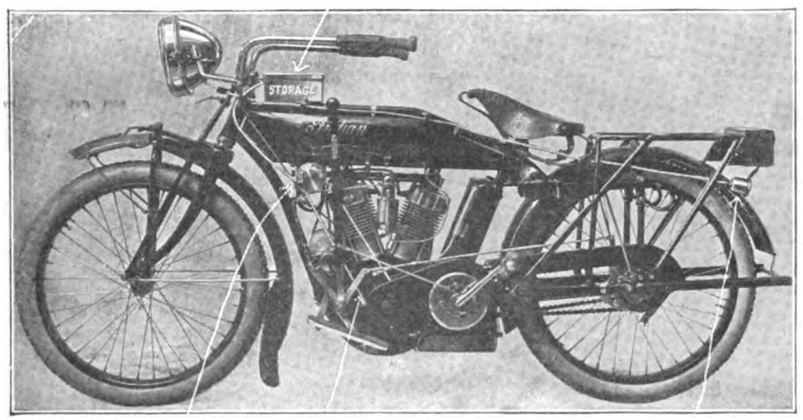
You Have All Heard About the

New Lite

Ready for deliveries on Indians and Excelsiors now. Other machines soon.



Made to Fit any Machine

Send remittance in full or one-third cash, balance C. O. D.

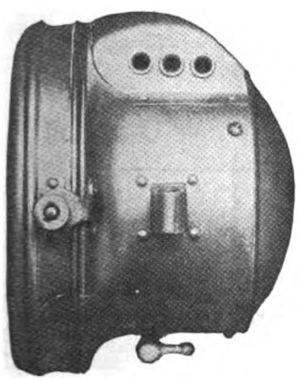
New Lite Electric Lighting Outfit
Price Complete, as Shown on Cut, Less Battery, $30.00

The New Lite Electric Lighting Outfit

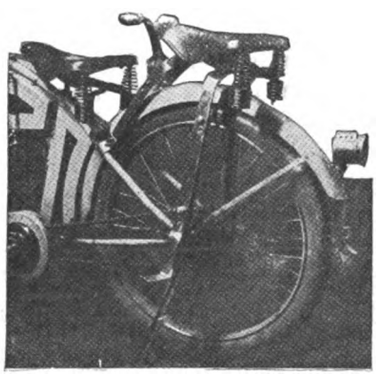
is the only practical principle of automobile electric lighting applied to motorcycles. The New Lite is not run from the tire, it is run direct from the engine. Our dynamo has a governor to take care of the speed, no matter how fast your engine runs. You can have light whenever your engine is running. For those who want a light when their machine is at rest we furnish a storage battery about the size of a Presto tank for $10.00 extra. You may depend on this outfit. We stand behind it.

Jen-Co Lamp No. 1 is just as substantial and beautiful as the cut shows it. It is not too big and not too small. Just what you want. 8 in. door, 5½ in. mirror, set screws to hold brackets, everything riveted, beautifully nickeled. Positively right and can't be beat.

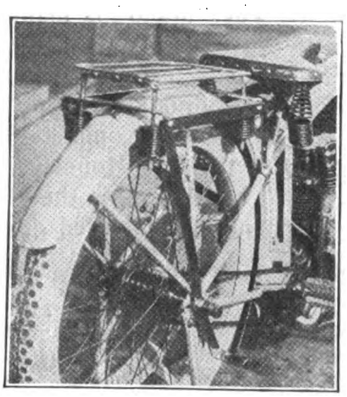
Jen-Co Indian spring seat post is built on same principle as Excelsior and Harley seat posts. Any one can install. A combination of this seat post and the 1913 spring frame is great. At last!!! We can all have foot rests. Jen-Co foot rests are made to fit all machines. They are simple, easy to install and thoroughly reliable. When you fall they do not break off, they fold up just like Indian foot rests. Order a pair. We buy and build everything in the largest quantities, therefore quote you prices that can not be touched by any of our competitors. We can either save you money on the same quality or give you better quality for the same money. Send for our new up-to-the-minute catalog. Prices positively lowest. Dealers' prices in proportion.



JEN-CO LAMP NO. 1
Price $5.50
Price, Bracket ..... .75



JEN-CO SPRING TANDEM
Price, Like Cut $15.00
Price, without Bars 13.50



JEN-CO SPRING CARRIER
Price $6.00

DES MOINES, IOWA

Supply House in America

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Elyria-Dean
TRADE MARK

THE "MAXO" HORN

An Electric Warning Signal for Motorcycles

GUARANTEED

Price
$5.00
Complete with Cord and Button

The "Maxo" adds value to Motorcycles.
The "Maxo" is manufactured by the makers of the Tuto and Rexo Automobile signals.
Inexpensive to operate.
Easily installed, as it is provided with universal mounting bracket.
An adjustable clamp is provided to attach push button.
Furnished complete, including Baked Black Enamel Horn and Button, Connecting Cord and Instruction for Mounting.
The "Maxo" is the only Electric Warning Signal built especially for the Motorcycle service and carrying an unlimited guarantee.

TO DEALERS—We have an interesting proposition for you as our agents. Ask for it today.

MANUFACTURED ONLY BY

THE DEAN ELECTRIC COMPANY

603 Taylor Street

Kansas City **ELYRIA, OHIO, U. S. A.** **San Francisco**

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RIDERS-DEALERS-JOBBERS

PRICE $2.50 **INVESTIGATE the MERITS of the** **PRICE $2.50**

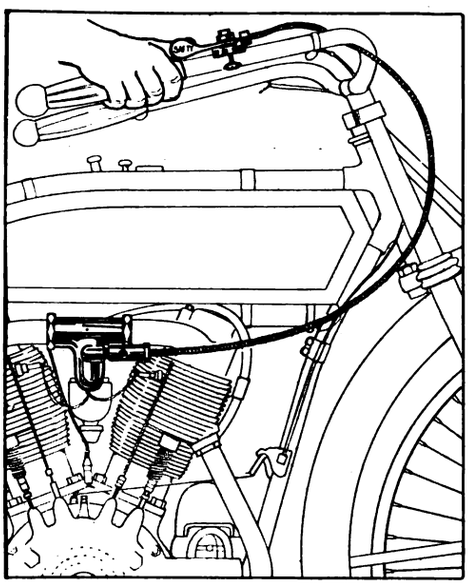
SAFETY GAS SAVER

WHAT IT IS:

The SAFETY GAS SAVER is a patented air control device fitted to the intake manifold and a perfected thumb control attached to handle bar close to either grip.

The GAS SAVER body is machined from brass and has a close fitting piston which closes upon a ground seat. The piston is actuated by the movement of control lever on handle bar.

One of the patented features of this device is the opening in the body for the admission of air. This opening is a rectangular slot and as the piston is drawn out this slot is gradually uncovered, making it possible to quickly and accurately adjust mixture.



Large holes are drilled in the body which the piston uncovers at the end of its stroke permitting an excess of air to enter making the mixture non-combustible.

The handle bar control is made entirely of brass and is so constructed that lever can be easily adjusted and will remain in any position. The flexible connection is known as the Bowden control cable and will conform to any curve without binding or breaking.

The SAFETY GAS SAVER is neatly designed, heavily nickeled, and highly polished, so constructed as to be adaptable to any make or model of motorcycle.

WHAT IT DOES:

The SAFETY AIR VALVE is primarily a gasoline saver, but adds to the efficiency of the motor in so many ways that it is an economical necessity.

It is a well-known fact, and generally understood that the Carbureter of today does not fulfill all the requirements, in that it cannot be adjusted to automatically furnish a mixture suitable to any and all conditions. Hence the development of an auxiliary air valve and the perfection of a device to answer the purposes of all drivers and all motors, known as the SAFETY GAS SAVER.

By our patented means of admitting air you can decrease the consumption of gasoline by 25 to 40 per cent.

You can increase your speed from 5 to 10 miles per hour.

By using the SAFETY you are assured a perfect mixture at all times, regardless of weather conditions or altitude, and a perfect mixture lessens the smoke and accumulation of carbon in the cylinders and helps keep the valves and plugs clean.

By fully opening valve and admitting an excess of air you can use compression of engine as a brake. This is serviceable for several purposes, for rounding corners or descending grades.

Is used to clean and cool engine while coasting. Can also be used as a safety lock. No one can start engine with valve fully open.

OUR GUARANTEE: We guarantee the SAFETY GAS SAVER to reduce your gasoline consumption twenty-five per cent. To increase your speed at least ten per cent. To keep your motor cooler. If the SAFETY fails in any of the above claims return same and we will refund your money. All dealers and jobbers are authorized to sell under this guarantee.

OUR TRIAL OFFER: Upon receipt of Two Dollars and a Half ($2.50) we will prepay to any address, one SAFETY GAS SAVER. Use this for thirty days and if not as represented or thoroughly satisfactory return same and we will refund money by first mail.

MR. DEALER: Our discounts are liberal and our guarantee bona fide. Increase your profits by handling accessories of merit. Purchase through your jobber.

MR. JOBBER: We have several thousand SAFETY GAS SAVERS in stock and can make delivery day your order is received. Sample will be mailed upon request. A clean-cut proposition to offer. Write.

THE MOTORCYCLE SPECIALTY SALES CO.

914 S. Main Street, Los Angeles, Cal.

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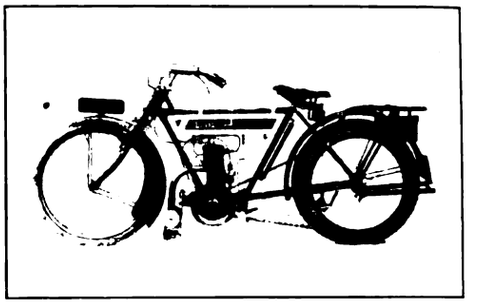
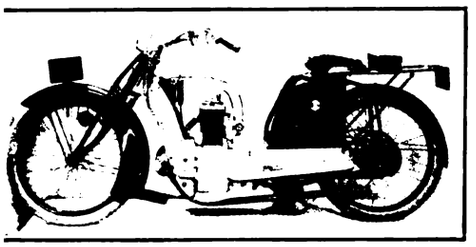
6 H. P. CALTHORPE COMB

ROYAL ENFIELD



THE LEVIS

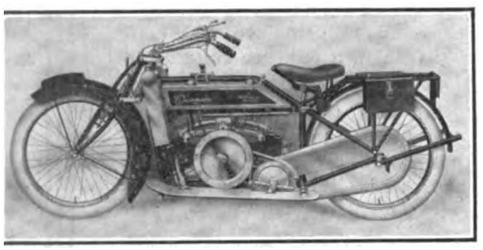


SWAN

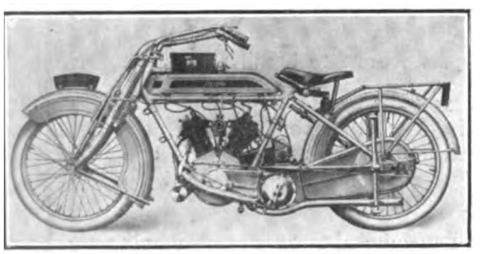
Renold

are used on 90% of the English chain-driven motorcycles. Space does not permit of our illustrating every one of these thirty-eight machines, whose names stand for motorcycle quality the world over.

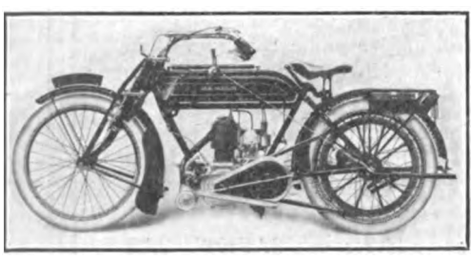
RENOLD CHAINS play an important part in the establishing and *maintaining* of a motorcycle's reputation for reliability.



WILLIAMSON



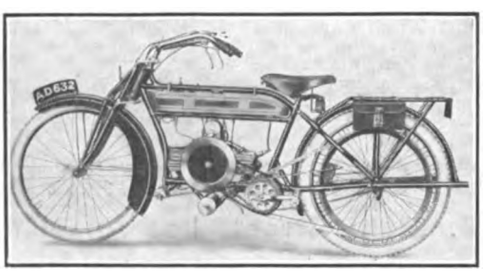
CLYNO



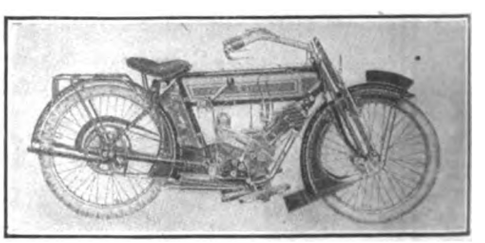
NEW HUDSON

Peter A. Frasse

WULTRUNA



THE DOUGLAS



PHELON & MOORE

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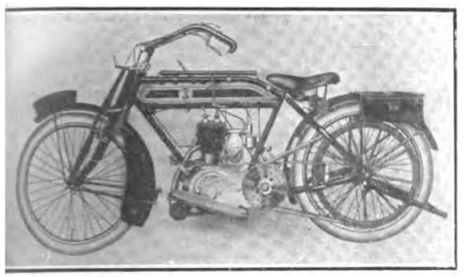
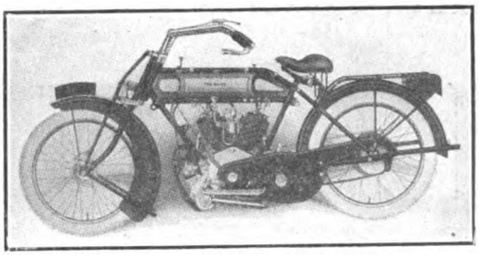
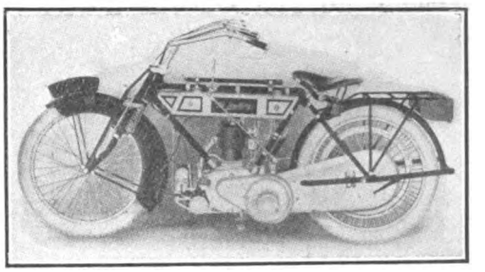


PREMIER

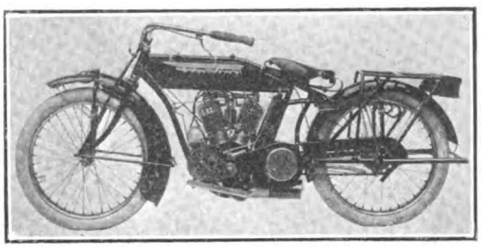


THE ROLFE



THE BRADBURY

Chains



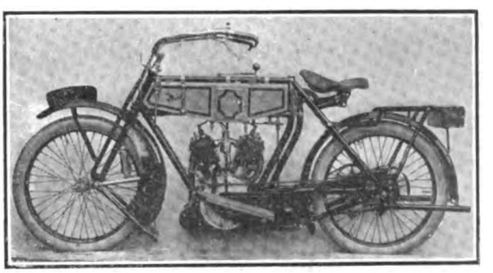
ENGLISH MODEL INDIAN

Renold Chains have a reputation for accomplishing results. For three consecutive years, RENOLD CHAINS have won the Tourist Trophy Race, the most famous motorcycle classic in England. In innumerable other instances they have demonstrated their supreme fitness.

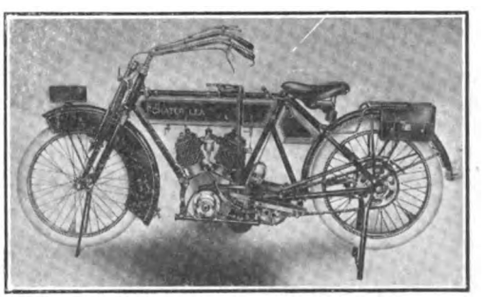
Thirty-three years of chain manufacturing experience have brought to its highest point RENOLD RELIABILITY. "RENOLD EQUIPPED" is a guarantee of transmission perfection.

Learn more about the chain in general and about the RENOLD CHAIN in particular from our free booklet, "Hints on Chain Drives for Motorcyclists."

REX

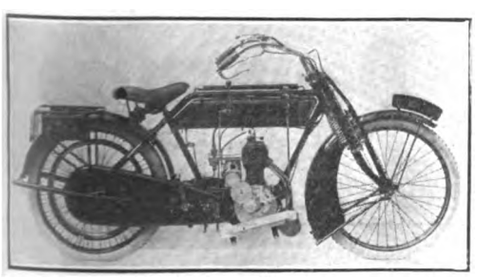


THE BAT

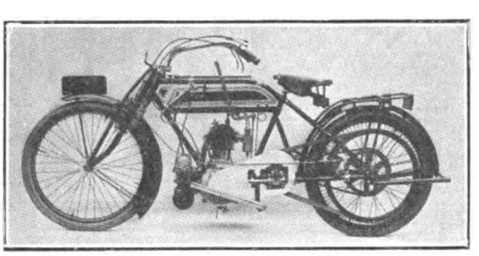


CHATER LEA

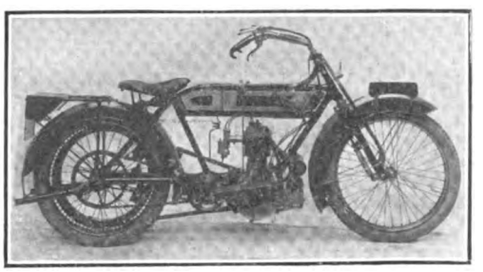
& Co. 419 Canal Street NEW YORK



SUNBEAM



LINCOLN ELK



L. M. C.

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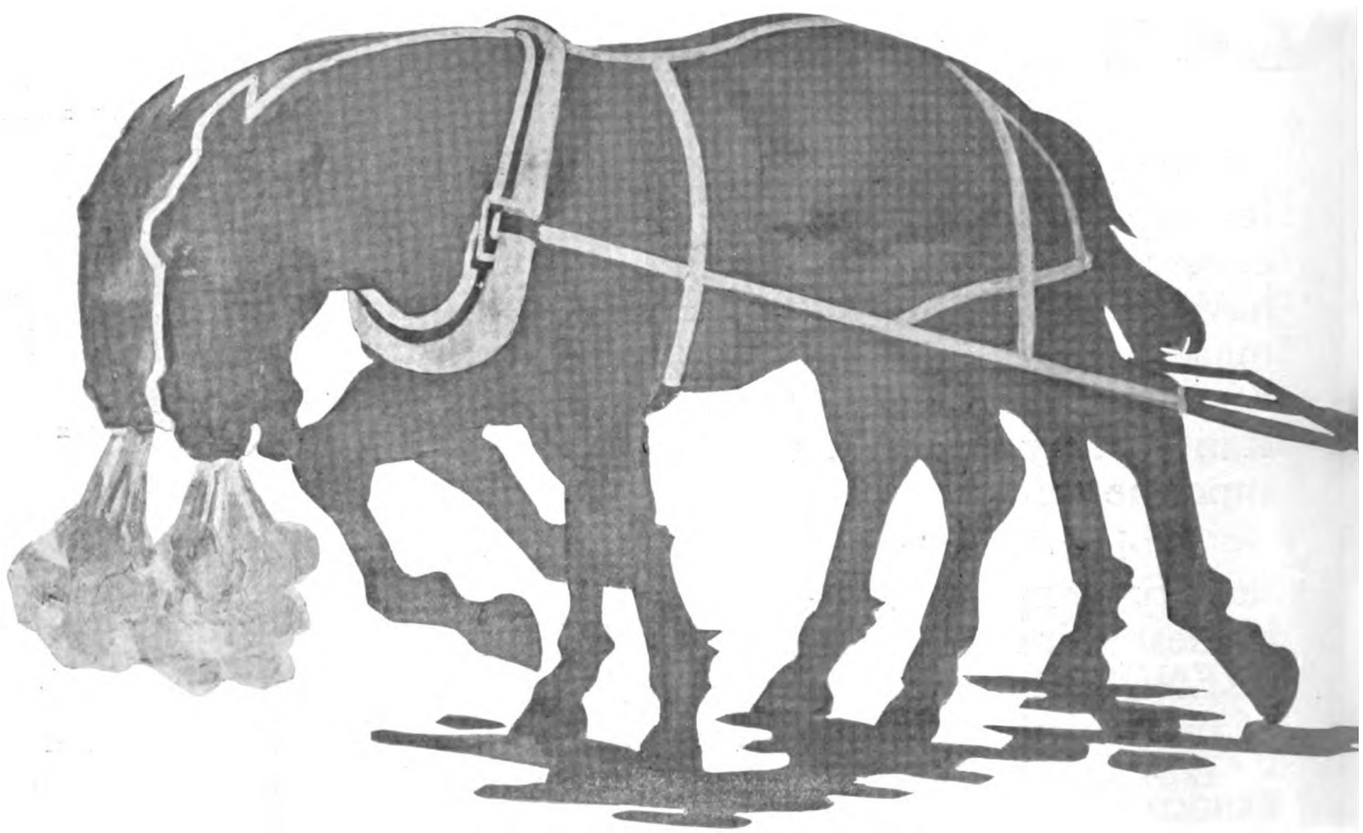
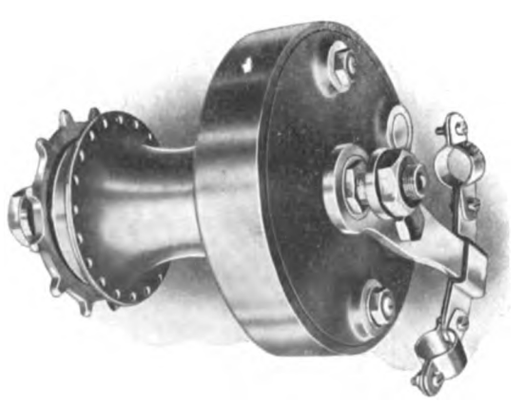
WILL STOP Y

Do you suppose that the combined strength of these two heavy Percheron draught horses could hold and stop your machine? Of course it could. The new New Departure Motorcycle Coaster Brake is even more powerful and gives you the same retarding effect at the brake drum as would the pulling of these two horses against your motor and momentum. This is not a fantastic statement, but a fact; mathematically correct



the ingenious, strong, simple leverage mechanism of the new New Departure—in emergency cases, the retarding power of the brake is equal to that of three or four horses.

The brake can be applied gradually or instantly,



FOR BELT DRIVE MACHINES

The New Departure
BRISTOL,
COASTER BRAKE

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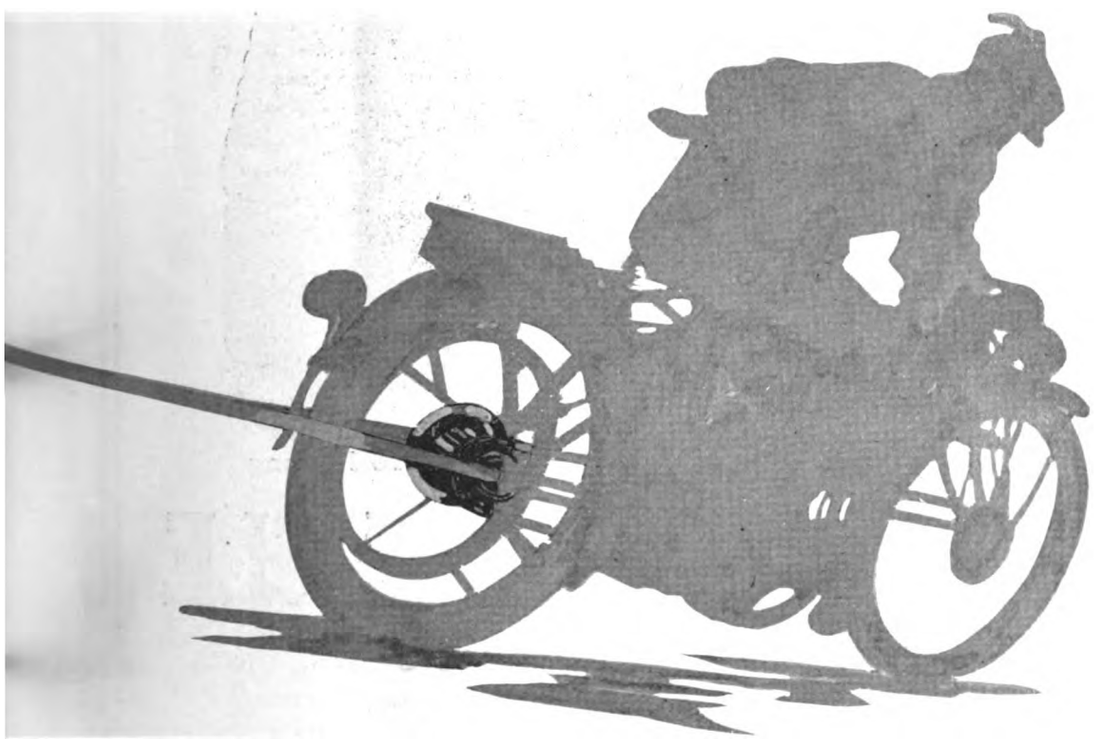
OUR MACHINE

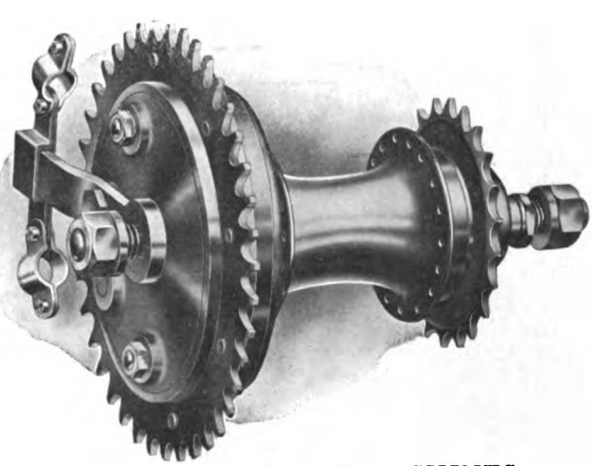
and proven in practice. This brake is of the same design as that employed in an automobile and more than adequate to the requirements of the highest powered modern motorcycle.

The picture is not an extreme demonstration. The lightest rider can exert a back pedalling force of seventy-five pounds. This small effort is compounded thirty times by



but always releases instantly, will work in oil, will not bind, wind or lock.

Write for literature fully illustrating and describing this wonderfully practical motorcycle coasting and braking device.



FOR CHAIN DRIVE MACHINES

Manufacturing Co.

CONN.

LICENSORS

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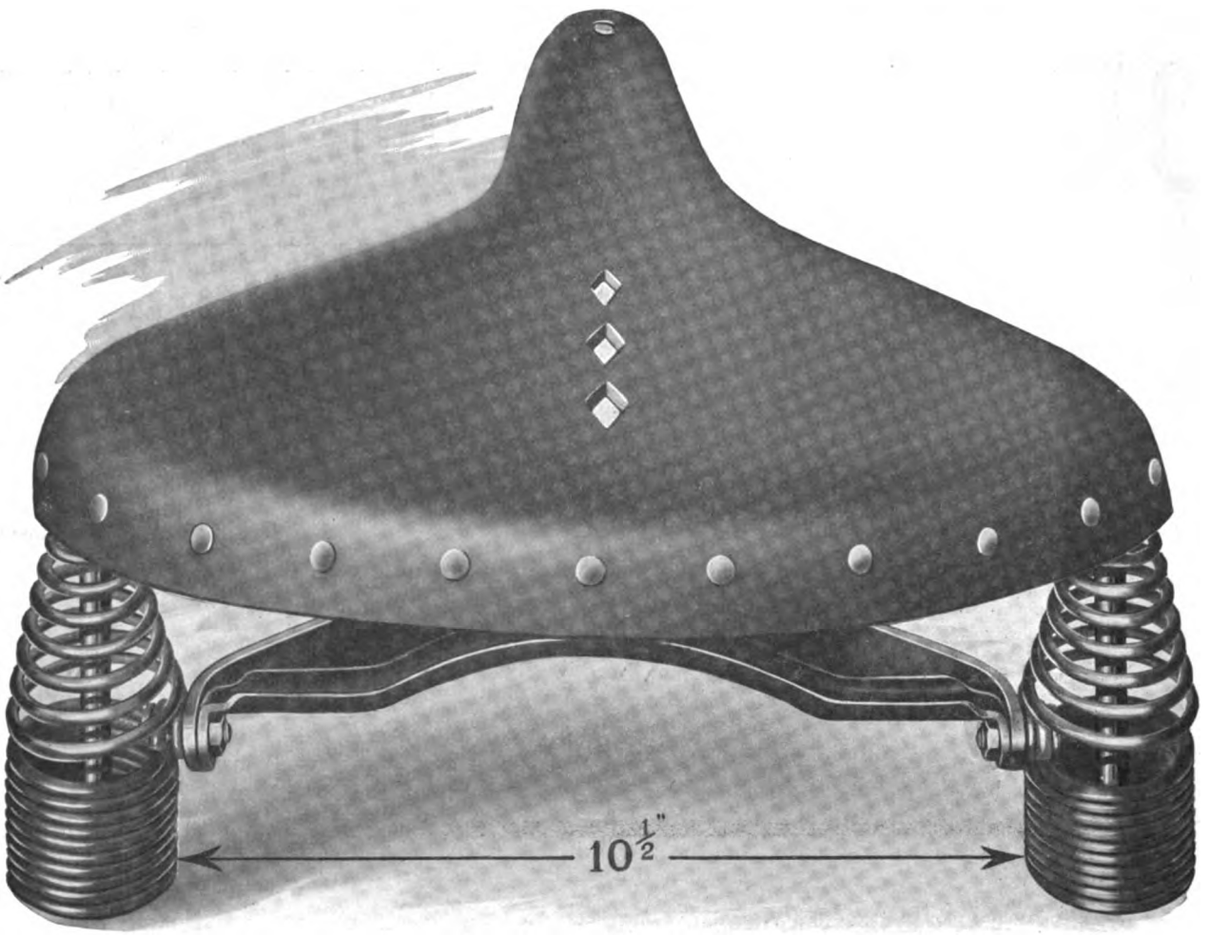

Troxel Special No. 3 Motorcycle Saddle. Size of Top, 13 1-2 wide x 15 1-2 long

IT FITS ANY MOTORCYCLE

Has an inside spread between springs of 10 1-2 inches, and is wide enough to spread the rear construction of any machine made

Write quick for the descriptive circular!

Specify a Troxel on Your New Machine

There is a Difference!

TROXEL MANUFACTURING COMPANY

ELYRIA, OHIO

H. T. ROBERTS, Selling Agent, Railway Exchange Bldg., Chicago

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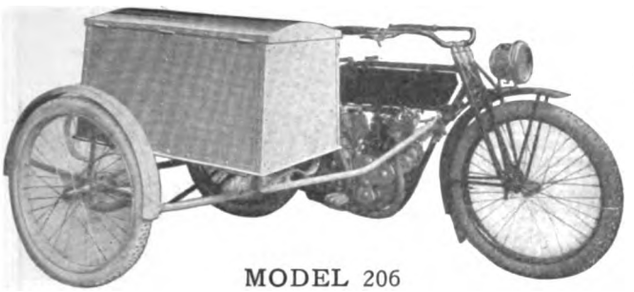


MODEL 206

Anders Sidecar

"With the Rocker Motion"

The ultimate pleasure to be attained is a ride in an Anders Sidecar, the most easily handled, the lightest, the most comfortable and by far the most durable sidecar made. Add the final touch of distinction to your motorcycle by fitting an Anders Sidecar.

THE ROCKER SPRINGS

The springs in Anders Sidecars are distinctive of the whole outfit, in that they assure the long-desired "rocker" motion. They are made of oil-tempered Swedish Spring Steel, body resting on body loop, bring springs on either side of body, therefore totally eliminating all side sway. The front spring is fastened to the frame by a T-socket, thus instead of the usual swaying motion, you have the rocker motion, the spring under the foot of the car working in unison with the rear spring, which assures comfort and safety for the passenger.

The supremacy of the "Anders" Sidecar is upheld not only in the superior quality of materials, the ingenuity and excellence of design, but also in the promptness with which deliveries are made. *Every sidecar* ordered will be delivered when wanted. That's saying a lot—when you consider the tremendous demand for "Anders" Sidecars.

Classy Clean Cut Designs

Superior designing skill, coupled with a positive GENIUS for the evolving of distinctive, graceful shapes, that smack not in the slightest of "freakishness"—Anders models have that thoroughbred, "classy" look. They are made to be admired, as well as to serve.

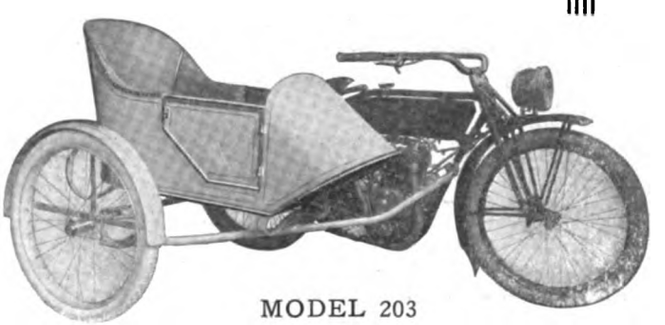
Anders Commercial Sidecars

The commercial sidecar field is as broad as it is rich. No wide-awake dealer can overlook the sales possibilities of the ANDERS Commercial Van. Your butcher, your grocer, your launderer —every local tradesman will be interested in the ANDERS.

Our catalog comprehensively covers the ANDERS line, and also our National Accessory line of tandem attachments. A postal card will get it.

National Cycle Accessory Co.

DEPT. A, AURORA, ILL.



MODEL 203

When writing to advertisers, please mention MOTORCYCLE ILLUSTRATED.

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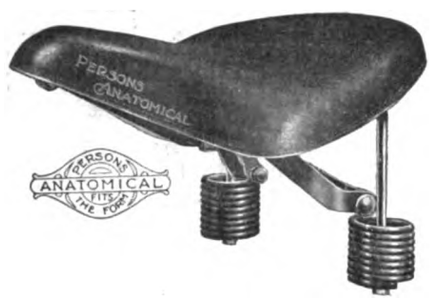


Two Persons Motor Seats that mark the millennium in saddle perfection.

SPECIFY PERSONS SUPERIOR SADDLES

Most of the pleasures of Motorcycling are spoiled because of uncomfortable positions that riders must assume. Free your body from discomfort, and you put your mind in the best possible position to enjoy the ride.

PERFECT SIMPLICITY and MECHANICAL EXCELLENCE Predominate in the

1913

Persons Champion Motor Seat

throughout. True Compound Spring Action, Scientifically Correct and Mechanically Perfect, is found in PERSONS Duplex Compound Springs. Of the thousands or more patents issued on Saddles, but five show designs of true Compound Spring Action. One is owned in England; the other four —by PERSONS.

IN A SET OF PERSONS PATENTED COMPOUND SPRINGS THERE ARE ONE HUNDRED AND FORTY-EIGHT INCHES OF TEMPERED STEEL SPRING WIRE, OF WHICH ONE HUNDRED AND FORTY-FOUR INCHES ARE ALIVE. This is true of no other saddle on earth.

No Re-Bound! A Spring upon a Spring! A Motorcycle equipped with Persons Seats is miles faster than others.

The one piece—high—arch bridge insures low Saddle position without the usual "bumping."

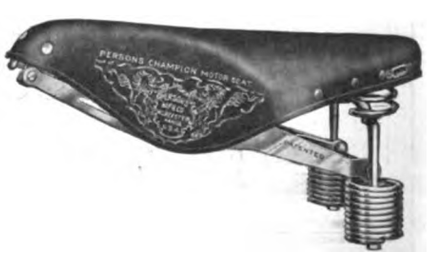
PERSONS CHAMPION is so constructed as to prevent tipping. It is built with the only safety clamp ever invented. This holds the Saddle at two points and absolutely prevents tipping. Seven high carbon steel drop forgings are used in these clamps.

Persons Anatomical Motor Seat

or "PAN-DANDY"

is built to meet a demand. It meets the demand among riders who desire a low snug-seating Saddle of SUPERFINE QUALITY. This method of construction gives a slightly elastic seat, free from deadness and with a feeling of "bottomless velvet" when in use. "Saddle Fatigue" is impossible with a PERSONS ANATOMICAL. This model can be equipped with either PERSONS DUPLEX COMPOUND SPRINGS as shown on our Champion, or with extra large lowers as illustrated above.

Write for booklet of "Facts and History." It throws new light on the Saddle Question.



The Persons Manufacturing Co.

The Oldest Makers of the Newest Motor Seats in America

Worcester, Mass.

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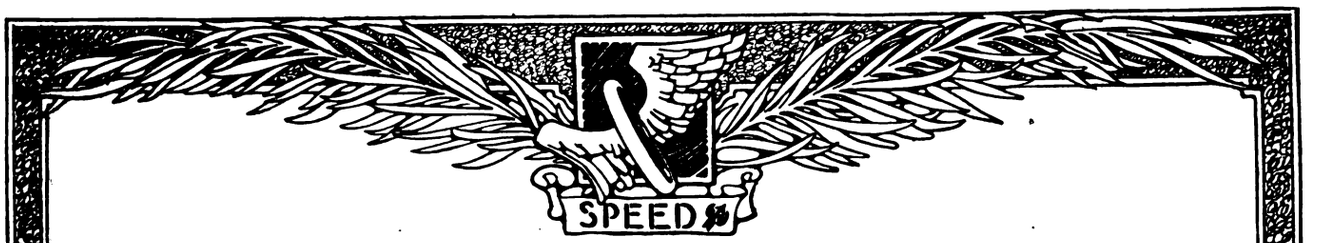

After experimenting with several different makes of machines the Park Board of Minneapolis has just placed its order with the Edwards Cycle Company of that city for another motorcycle. Quite naturally it is

In 1910 the Minneapolis Park Board purchased three single cylinder motorcycles—one Flying Merkel and two other well known motorcycles of different makes. The motorcycle was a new thing for this city department and the Park Board very naturally desired to ascertain which make would show the greatest percentage of efficiency. These three motorcycles were used unsparingly for a year. In 1911 the Park Board purchased four new motorcycles and—EVERY ONE OF THE NEW MACHINES WAS A FLYING MERKEL. The Minneapolis Park Board found after a year's test that the Flying Merkel could always be depended on to give the greatest service. These five Flying Merkel motorcycles had rendered such splendid work that it was not necessary to purchase new machines in 1912. A week ago the Minneapolis Park Board sold one of the other makes and placed its order for a 1913 Flying Merkel, thereby recognizing the superiority of the Flying Merkel over all other makes.

There's a mighty valuable lesson in the experience of the Minneapolis Park Board for every motorcycle rider. Why experiment with other machines when for practically the same price you can have the BEST MOTORCYCLE MADE? A Self Starter, Two-Speed Hub, Adjustable Spring Frame, Ball Bearing Motor, Spring Fork, Low Saddle Position, Throttle Controlled Oiler, are only a few of the many exclusive features of this wonderful machine.

Have you seen our new art catalog? It's free for the asking. Remember,

"Every Flying Merkel Sells Another"

The Miami Cycle & Mfg. Co.
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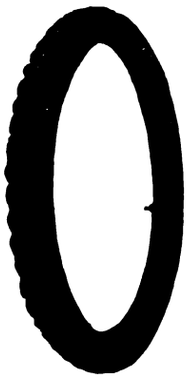

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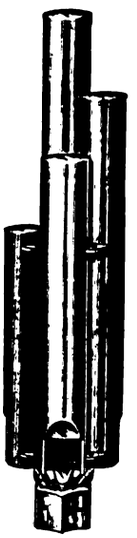

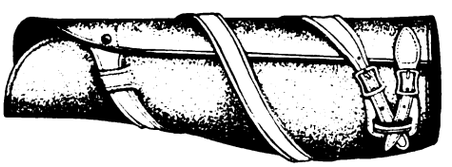

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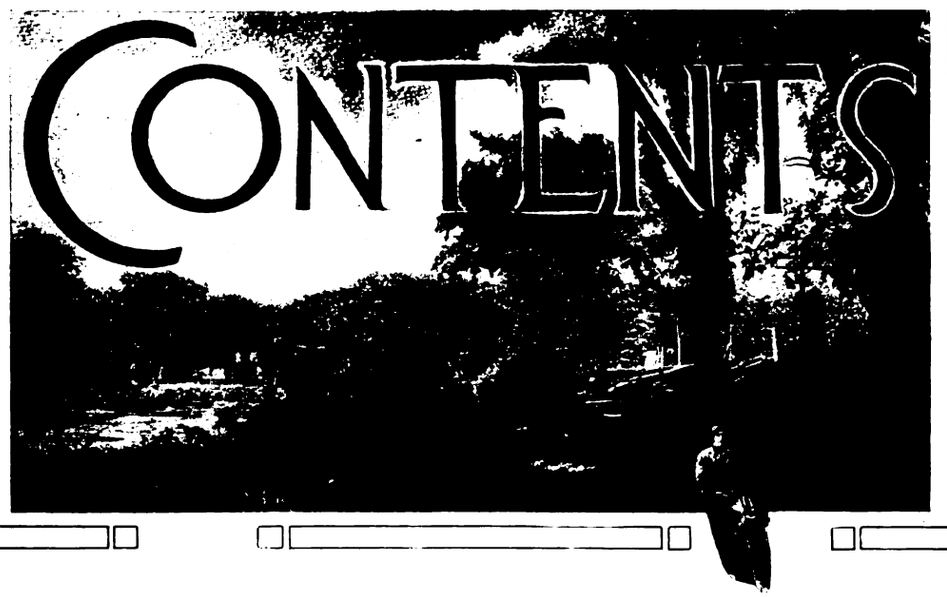

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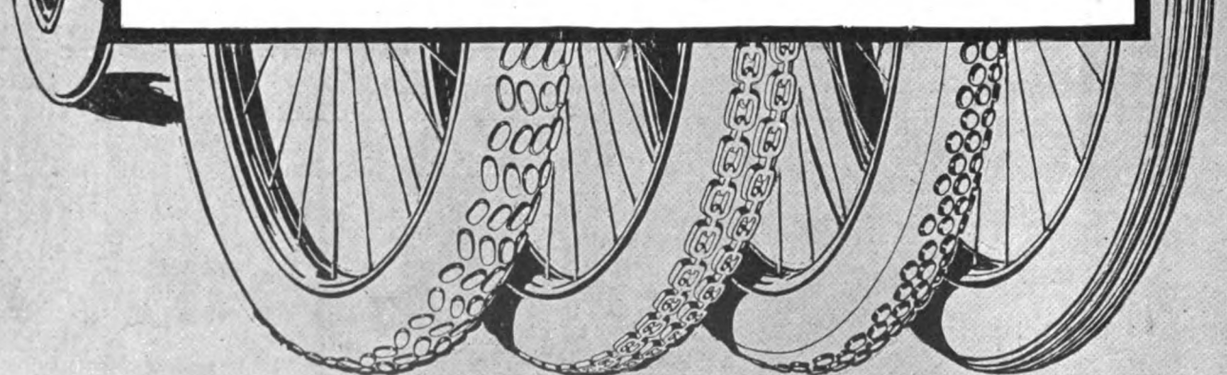

United States Tire Company-New York

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VOL. 7

MOTORCYCLE ILLUSTRATED

NO. 10

WITHOUT striving especially for a symbolical effect the artist has embodied a forceful suggestion in the picture which adorns this page. We find the tourists, smiling, confident, gazing across a sweep of fair country to the rising sun—obviously appreciative of what Nature has already done for them, keenly alert for new beauties to be unfolded as Sol climbs the sky.

So do thoughtful trade workers and riders look out upon the possibilities of motorcycledom. Much has been accomplished, but our sun is still rising; as yet it is two-thirds below the horizon of ultimate achievement. The scope of this Spring Touring Number, the nation-wide interest which justifies it, leave no doubt of this. The 1913 riding season is with us, unprecedented in the inducements it holds out—and we are ready for the road. Give 'er the throttle!

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Cleveland and Norfolk Capture F. A. M. Trophies

Award for Largest Number of Memberships Turned Over to Director Sauer Goes to Cleveland M. C. While Virginians Made Best Showing in Attendance at the Official's Lecture—Standing of the Clubs.

WITH an address before a meeting of New York riders in the World building Monday evening, Chairman Sauer, of the Legal Action Committee of the F. A. M., brought to a close his missionary tour in the interest of the Federation. The Legal Action chairman will be glad to address further meetings of riders in and about Greater New York at any time that will be mutually convenient, and he invites interested clubs to write to him at his business address, 51 Chambers street, New York City.

Chairman Sauer announced yesterday the winners of the membership contest trophy and the attendance cup, which were offered by the National organization in connection with his tour. For contributing the largest number of memberships, the Cleveland club, with 116, tops the list. Elmira, with 47, is second, and Norfolk, with 37, third. The first twelve cities in the membership contest, and the number of members handed to Mr. Sauer in each one of them is as follows:

Cleveland, Ohio	116
Elmira, N. Y.	47
Norfolk, Va.	37
Indianapolis, Ind.	28
St. Louis, Mo.	26
Savannah, Ga.	25
Salt Lake, Utah	22
Ft. Worth, Tex.	19
Buffalo, N. Y.	18
Portland, Ore.	17
Louisville, Ky.	16
E. St. Louis, Ill.	15

It is probable that the presentation of the trophy will be made to the Cleveland club during the Ohio State Convention in Cleveland next month.

Quite as interesting as the membership figures is the attendance tabulation. It will be remembered that when Mr. Sauer started on his tour, he announced that another trophy would be awarded by the F. A. M. to the city having the best attended meeting in proportion to its F. A. M. membership the first of March. The idea of basing the attendance award on a percentage basis was to afford to clubs in every city, no matter how small, equal opportunity to win the cup. The percentages given below may be illustrated by the following examples: Assuming that a city having an F. A. M. membership of 200 had an attendance of 100 at the F. A. M. meeting conducted by Mr. Sauer, it would get a percentage of 50. If, on the other hand, a city having an F. A. M. membership of 25 showed an attendance of 50 riders, or double, it was given a percentage of 200. Worked out in this way, the city of Norfolk, Va., with a percentage of 350, had an attendance of three and one-half times its F. A. M. membership and was easily a winner and will be awarded the attendance cup. Boston was second with 225 per cent. and Milwaukee third with 210 per cent. The percentage of attendance in each city on the Legal Action chairman's schedule is given herewith:

	Per Cent.
Norfolk	350
Boston	225
Milwaukee	210
New Haven	175
San Jose	150
Denver	140
St. Louis	130
Richmond	130
Baltimore	125
Indianapolis	125
Louisville	120
Cleveland	120
Hartford	115
Buffalo	110
Elmira	110
Salt Lake City	110
Newark	105
East St. Louis	95
Savannah	85
Atlanta	85
Detroit	85
Fort Worth	75
Pittsburgh	65
Los Angeles	60
Rochester	55
Cincinnati	50
Tacoma	50
Seattle	45
Portland	40
Washington	40
Philadelphia	40
Bakersfield	35
Birmingham	25
Toledo	25
Chicago	20

Chairman Sauer has discussed with a number of trade folk the question of the date of the Denver Convention which, according to present arrangements, is slated for the week beginning Monday, July 21. The impression is general that if this date is adhered to, very few of the trade will go out to Denver, owing to the fact that most of them wish to attend the Cycle Trades Convention in Altantic City the second week in August. Those of the trade who are accustomed to start for the Pacific Coast in September have suggested that the F. A. M. convention be held the latter part of August, so that they could first attend the Atlantic City gathering, and then take in Denver on their regular westward business trip.

On the other hand, the Denver hotel people claim that August is pretty well filled up, and that they would prefer the week which the Directors have decided upon. The latter are still in communication with the Denver club and it is possible, though not probable, that the date for holding the convention may be changed. In the mean time, however, nothing will interfere with the plans of the Denver club, which is proceeding with the purpose of making the Denver convention a record-breaker in the annals of the Federation.

Colorado State Commissioner W. W. Whiting, of Denver, advises that he will soon turn in a big batch of memberships and the affiliation papers of the Denver club, which had just been reorganized previous to Chairman Sauer's arrival.

From all indications, the tours to the Denver meet will be participated in by scores, if not hundreds, of long-distance riders. The section between the Mississippi and the Rocky Mountains will be particularly well represented and tour arrangements are under way in cities as far east as Indianapolis, Buffalo, Elmira and Rochester. As a matter of fact, aside from the convention tours, this year promises to establish a new high-water mark for transcontinental touring. This is evident from the number and character of inquiries for long-distance touring information received daily at the headquarters of the F. A. M. National Touring Bureau.

New York Riders Discuss State Convention Plans

Committee is Named at Enthusiastic Meeting to Learn Sentiment of Clubs Throughout Empire State Relative to Choice of Assembly City—Elmira is Making Strong Bid to Play Host to Delegates.

CALLED by State Commissioner J. A. Hall, a meeting of Greater New York riders was held in the *World* building, on Park Row, New York City, Monday night. The purpose of the meeting was to afford the State Commissioner an opportunity to sound local sentiment in connection with the proposed New York State convention, which in all probability, will be held during the week of the 4th of July.

Although the meeting was not largely attended, it was a representative one and enthusiastic withal. A half-dozen New York and Brooklyn clubs were represented by delegates, and the State convention situation was thoroughly threshed out, with the result that, upon motion by Chairman J. P. Thornley, of the Competition Committee, seconded by J. W. Constant, a committee consisting of Commissioner Hall, Chairman Sauer and William Gladish were appointed to get immediately in touch with clubs throughout the State, with a view to selecting the convention city as soon as possible. Although the State Commissioner is empowered to make the selection on his own responsibility, State Commissioner Hall explained last night that one of the purposes of calling these meetings was to ascertain the sentiment of the riders, so as to be sure of their co-operation after the selection has been made.

Some of those at Monday night's meeting were strongly in favor of holding the convention in Poughkeepsie because of the fact that if the convention is held there it will be possible to run off the State championships on a first-class mile dirt track. At the same time, the meeting adopted a resolution offered by

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Mr. Sauer that it was the sense of the meeting that the convention be held in a centrally located city.

Thus far the city which has made the strongest bid for the convention is Elmira, N. Y., the Elmira club having been working enthusiastically to land the convention since the proposal that a State convention be held in New York was made by Chairman Sauer on the occasion of his visit to Elmira about three weeks ago. The suggestion was immediately taken up, and the Elmira boys are today not only willing but anxious to entertain the delegates.

To prove just how anxious they are and how well prepared to make good, at a recent meeting of the Elmira club's board of directors it was unanimously voted to raise at least $1,500 for the entertainment of the convention. The club, at its regular meeting last Thursday, immediately ratified the action of the board of directors and appointed a committee consisting of Burton A. Forsythe, LeRoy Morris, Harold McGlen and F. N. Barthne, to take up the matter of the selection of the convention city with all the affiliated clubs in the State. General Manager Ralph D. Webster, of the Eclipse Machine Company, is among the enthusiastic Elmira boosters and is co-operating with the local club in every way. It is said that the Buffalo, Rochester, Syracuse, Utica, and other clubs in the western and central districts will be well represented if the convention is held in Elmira. Only one objection has been offered to the selection of Elmira, viz., the fact that the Elmira track is a half-mile circuit At the same time it has been suggested that the twin-cylinder State championships could be held separately on a mile track.

An important matter in connection with the selection of the convention city will be the assurances given the F. A. M. State Commissioner as to what extent the convention will serve to establish a comfortable nucleus for a State F. A. M. fund. Not much money is necessary, for ordinary purposes, to conduct State affairs of even a commonwealth as large as New York. At the same time, every well-populated State should have at least a few hundred dollars in its treasury. But the distribution of even a hundred or two hundred dollars to each State by the national organization, inasmuch as the membership dues are only one dollar a year, is quite out of the question. It is for this reason that the New York State Commissioner, as are no doubt the commissioners in other States, will largely gauge the selection of the convention city according to the probability of its paving the way for establishing a State F. A. M. fund.

The New York meeting was addressed by Chairman Sauer, Chairman Thornley, "Happy Days" Pitman, and others. State Commissioner Hall presided.

Big Tours to Feature Ohio State Convention

Four F. A. M. Divisions Will Start on June 19 for Cleveland, the Points of Assembly for Tourists Being Cincinnati, Marietta, Toledo and Ashtabula—Two-Day Entertainment Program in Convention City Includes Racing and Parade of the Visiting Motorcyclists.

PLANS for four tours to be held in connection with the state convention of the Ohio F. A. M. organization were launched at an enthusiastic meeting of the directors of the body in Middletown, Sunday, May 5. The tours will start simultaneously from the four corners of the state on June 19, Cincinnati, Marietta, Toledo and Ashtabula being the points of assembly for the tourists. Two days will be allowed for the riders to reach Cleveland, the scene of the convention, and bronze medals of special design will be presented to the riders who finish the trip. It is stated that the runs will have all endurance and speed features eliminated, and that every effort will be made to develop them along social lines. It is expected that many women enthusiasts will be included in the parties.

The annual business meeting of the Ohio State F. A. M. will be held on the morning of June 21, at Cleveland, and in the afternoon a big race meet will be staged at the Randall track, under the auspices of the Cleveland Motorcycle Club. All the events will be for amateurs. In the evening races will be held at Luna Park motordrome. On the morning of June 22 a parade of riders will be held through the principal streets of the city, and it is confidently expected that 1,000 machines will be in line.

One answer to the oft-repeated question: What do I get for my F. A. M. dollar? was embodied in a report of the Legal Action Committee of the Ohio state body, submitted at the recent meeting of the directors. The report showed that it was due to the activity of the state organization that the recently proposed $5 license fee for motorcyclists was reduced to $3 before the measure was adopted. There was a determined effort on the part of the lawmakers to railroad the unfavorable bill through, but such opposition was worked up by the F. A. M. officials in the state that the fee was cut to $3.

State Commissioner J. A. Campbell, of Toledo, presided over the directors' meeting and the other members of the board in attendance were as follows: Edward Hensley, of Dayton, secretary; M. E. Remelin, of Cincinnati, chairman of the Highway Committee; Carl Cappel, of Dayton, chairman of the Legal Action Committee; Walker Brown, commissioner for Hamilton County, and F. L. Valiant, chairman of the Publicity Committee. Among others in attendance were George Squiers, of Dayton, and M. E. Horn, president of the Cincinnati club. There was so much business demanding attention that the board held two sessions, one in the morning and the other in the afternoon. After the latter meeting Mr. Remelin, the Cincinnati member of the board, entertained the visitors at dinner and also took them on a sight-seeing trip in his automobile. The next meeting will be held at Dayton, May 25.

BAKER'S TOUR COMPLETED.

MEMBERS of the Indianapolis M. C., headed by President McLain, met Erwin G. Baker at Plainfield, Ind., as he was returning to Indianapolis the latter part of April. Baker had many thrilling stories to tell of his extended tour. The last leg of his trip, from Los Angeles to Indianapolis, included the desert region of California and Arizona, where it was necessary to carry water, gasoline and oil in canteens. Baker says that he traveled fully a hundred miles without seeing any sign of life in the country about him, and that the heat was terrific. Baker is the first man to cross Cuba on a motorcycle. While there he paid $1.10 a gallon for gasoline, which was furnished in pint bottles, sealed with paraffin. The accompanying photograph shows Baker being welcomed by President O. F. McLain, of the Indianapolis club, who is also State F. A. M. commissioner.

Baker will compete in the twenty-four-hour endurance run to be held in connection with the Indiana State Convention, May 16, 17 and 18. He will also assist McLain, who has been appointed tourmaster for Indiana, at the time of the tour to Denver. The Indiana tour will pass through St. Louis, where the party will be joined by the St. Louis riders. From St. Louis the route leads over the Santa Fe Trail to Hutchinson, Kan., at which point the party will join the Short Grass Club in their tour to Denver. The photograph shows Baker (on the machine) being welcomed by State Commissioner McLain.

MILWAUKEE'S THREE-DAY RUN.

LACY CROLIUS, chairman of the touring committee of the Milwaukee M. C., with H. E. Jamieson and Louis Bauer, members of the club, have just completed a pathfinding trip preliminary to the three-day tour which will be held under the auspices of the club, beginning Memorial Day. It is planned to have Madison as the first night control and on the second day the riders will pass through Sun Prairie, Columbus, Beaver Dam, Fon du Lac, Neenah, Menasha and Kaukauna to Green Bay, where the second night control will be arranged. The third day's riding will bring the riders through all the towns along the lake between Green Bay and Milwaukee. The course covers a little less than 400 miles.

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ALONG the NEW JERSEY COAST

by TOURMASTER

FOR at least seven months in the year—frequently more—there is almost a steady stream of motorcycle travel between New York, Long Island, Newark and the metropolitan district generally, and the long stretch of New Jersey shore that lies between Sandy Hook and Cape May. Fortunately, or no, from the New York end the start-off is the slow, annoying part of the whole ride, as the really good stretches do not begin until one is below Keyport; but from that point nearly all the way to the tip end of the southern New Jersey peninsula the roads are mostly good, with some pieces of gravel unexcelled in the United States.

To the locally unacquainted motorcyclist, the geographical situation between Manhattan and the two Amboys or below, is both intricate and puzzling; and whichever way you go means a sacrifice of distance. By the simple expedient of laying a rule—or even a pencil—down on the accompanying map between New York and Seabright, it will be seen how much additional road mileage is made necessary in order to get around the large indentation of Raritan Bay—something, of course, that can never be helped except by the establishment of a boat line carrying motorcycles, automobiles, etc., between the metropolis and the head of the North Coast, which the "Sandy Hook" route will not do.

The present way is easy, however, compared with not many years ago, for before the Perth Amboy-South Amboy bridge was built (and one summer afterward when it had to be closed for changes insisted upon by the War Department), it was necessary for road travel to go all the way around by New Brunswick (too far west to be shown on the map). There have been other changes for the better on these routes, as will be noted further along, as no other section so near New York has been undergoing more constant and important improvements.

LEAVING NEW YORK CITY.

For laying out a motorcycle trip between Manhattan and the New Jersey seacoast, the first essential is a good reference map showing at a glance the choice of routes in their correct geographic relation. While the accompanying diagram, made specially to illustrate this article, is necessarily on a small scale—and in fact is tilted somewhat to go in an arbitrary page—it will be useful for planning this tour to best advantage down and back.

It shows the two main lines between New York and Lakewood—one across Staten Island, and the other through Newark and Elizabeth, both meeting at Perth Amboy, in order to use the only approach to the Raritan River bridge. Of course it has been stated before, but needs to be referred to again in discussing the advantages and drawbacks of these two routes, that the Staten Island line is the shorter, more logical and better-surfaced route, but requires a difficult and sometimes even a dangerous ride through the heavy traffic of the middle and lower city on week days.

The trouble is that the great city of New York has only one through road all the way to South Ferry, and into Broadway—especially below Fourteenth street—are jammed more street cars, delivery wagons and other vehicles than anywhere else. A trip downtown on the average afternoon will mean keeping out of the way of all these, and at the same time dodging several hundred pedestrians. But Sundays or holidays, in the early morning or late at night, the Staten Island route is the preferable way, as under all conditions it is the logical route from Brooklyn or Long Island points, touching only a small portion of lower Manhattan.

CROSSING THE RARITAN RIVER.

The roads from New York, via either Weehawken or Jersey City, thence around through Newark, Elizabeth and Rahway, are never as good as the line across Staten Island, for they necessarily traverse a heavy manufacturing and thickly-settled suburban district. But despite this, and the much greater distance, many motorcyclists prefer this route to the one which requires riding to the tip end of Manhattan. Of course, tourists coming from Newburgh, Paterson, Lake Hopatcong, Port Jervis, etc., bound for Keyport, Red Bank and the Coast, desiring to cut New York City out entirely, may do so by an intermediate connection at Newark, as the map shows, thence down through Elizabeth and Rahway.

Meeting at the western edge of Perth Amboy, both routes come together to cross the Raritan River bridge, a curious, angling structure, 1 1/3 miles long—none too wide for the amount of traffic going over it, but free from toll—leading into South Amboy. Old-timers will remember the famous "hole-in-the-wall" under the Pennsylvania Railroad tracks between the bridge and the town; that has now been largely superseded by the construction of a shorter connecting link, but not done away with altogether, as there was one time in 1911 when some repairs were made on the new route, and the old line through the dark tunnel had to be used for several weeks. Perhaps it is being retained for just such emergencies.

After literally wriggling through South Amboy, one has a fairly clear stretch—with one sharp curve at the edge of Cheesequake Creek, and a very dangerous grade crossing at Morgan station—to the western edge of Keyport where, as will be seen by the map, the two routes to Lakewood divide. The majority of travel which goes down the coast continues into Keyport; turning right at the central four-corners of that old town, the going rapidly improves to the little old village of Middletown.

Here the road makes a square left turn, and in so doing crosses the tracks of the New York and Long Branch Railroad twice in the same tenth of a mile; whether this is the result of poor calculation on the part of the road or the railway does not appear, but so far as the writer's observation goes, it is the only situation of its kind. It is not likely that that will remain much longer. Beyond these two overhead bridges begins a stretch

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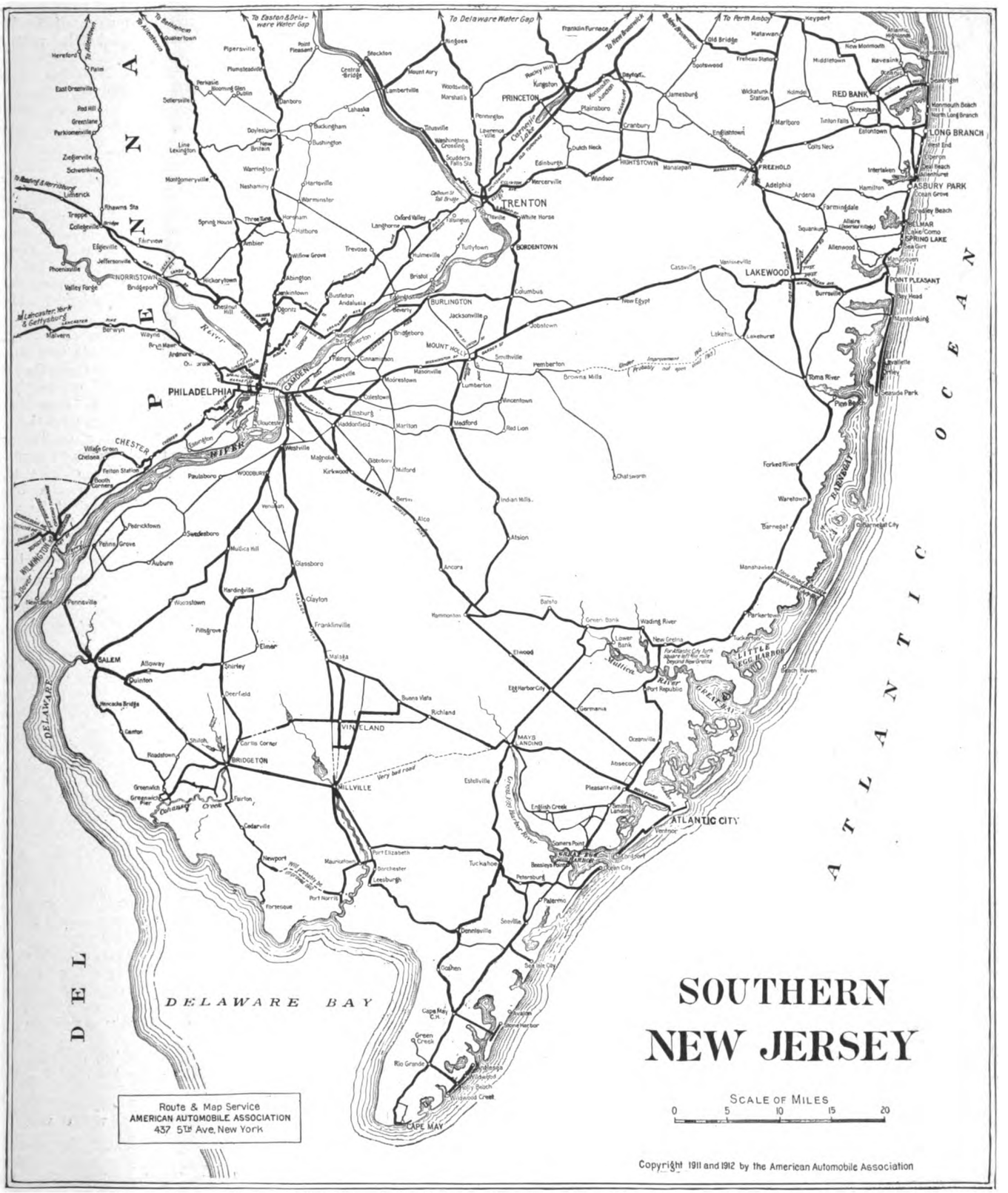
of as perfect road as will be found anywhere, though it loses a little in quality just before crossing the bridge over the Navesink River into Red Bank—as the map shows, an important junction point for the two routes farther down the coast.

The reader who may choose to follow out these suggestions by reference to the map may possibly wonder why a circuit that shortly loops back to Atlantic Highlands should be run all the way from Middletown to Red Bank; but the reason will soon be apparent. In addition to missing the excellent piece of road already referred to, the short-cut from Middletown would run above Little Silver, reached only from the north or west by going through Red Bank, and the principal gateway of the famous Rumson road. A ride over this road is one which no stranger should miss, and which is at the same time the best for the every-day traveler.

Little Silver is not a town, but simply the locality, marked by a signboard, where a square left turn is made from Branch avenue,



This small-scale map shows all the practicable connections to the popular New Jersey coast, particularly from Trenton, Philadelphia, Wilmington and points west or south of these cities.

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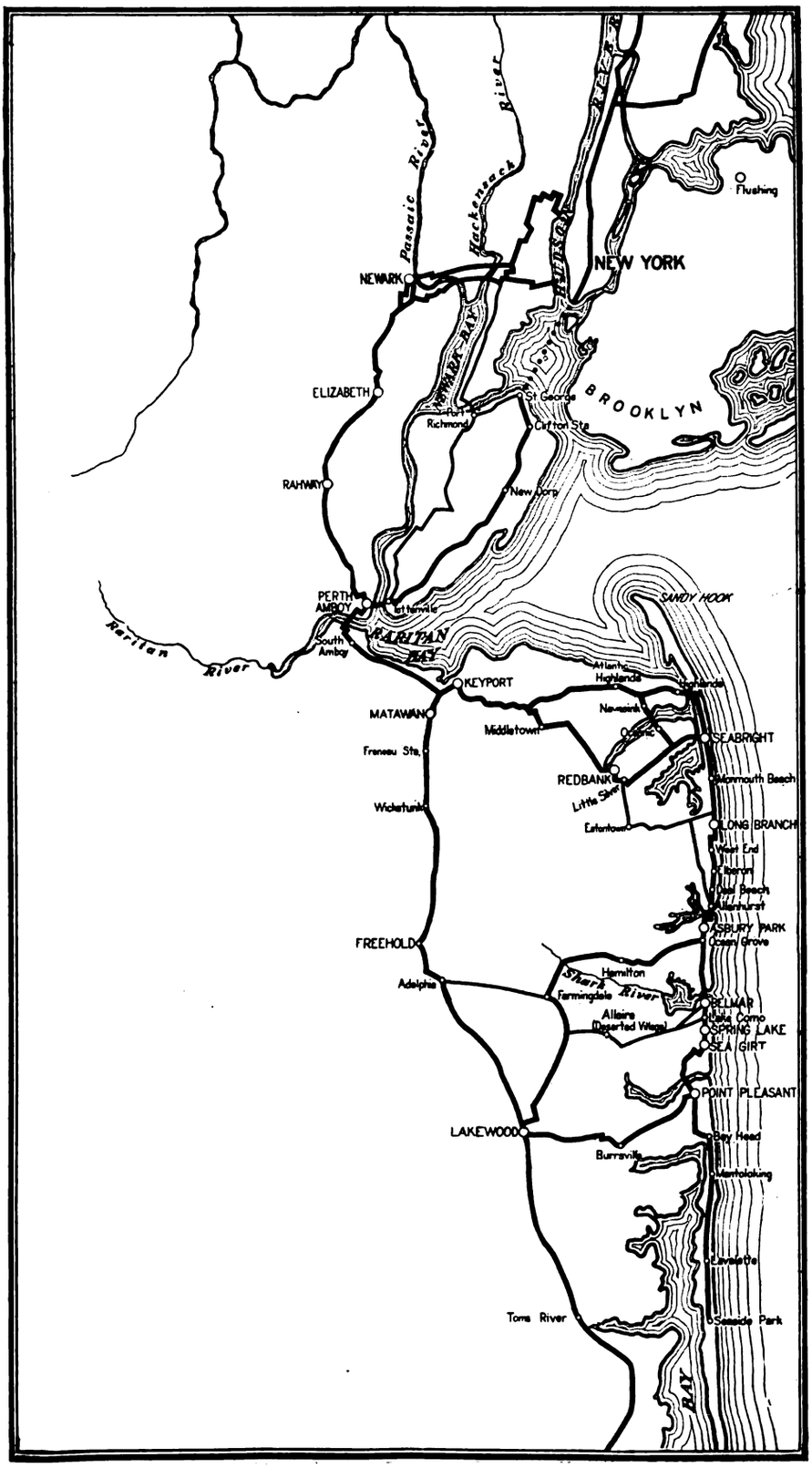
Red Bank, into the Rumson road—wide, direct and lined on both sides with magnificent estates. This is considered by many the most elaborate country road in America—located on Rumson Neck about midway between the Navesink and Shrewsbury rivers.

If anything, more emphasis is laid upon the grounds along this drive than upon the buildings, spacious, velvety lawns and well-kept hedges are universal, and some of the houses are entirely concealed in the foliage. Except for the Rumson County Club, which is, of course, in harmony with its surroundings, there is practically no break in the line of these pretentious estates from Little Silver to Seabright, a distance of about five miles.



Upper half of the route from the Metropolitan district to Cape May, N. J., along the New Jersey seacoast.—Interesting country and roads fair to good.

It is best to follow the road to its end at the bridge over the entrance to the Shrewsbury River; cross the railroad tracks at Sea bright station and turn left for a short circuit to Highlands, Atlantic Highlands and back to Seabright via Oceanic, which will take in the most interesting places on the extreme northern coast with the least extra mileage. Now you are immediately alongside the Atlantic, on a narrow tongue of land dotted with summer homes and hotels; parts of the shore in this neighborhood are known as Rumson Beach, Normandie, Navesink Beach and Highland Beach, but the dividing lines between them are not visible as one passes through.

A VISIT TO FORT HANCOCK.

At what is practically the end of the road, turn square left across the bridge near the mouth of the Navesink River into Highlands, a picturesque summer resort that has grown up at the meeting place of the river with Sandy Hook Bay and the ocean. This locality is separately named to distinguish it from the better-known Atlantic Highlands. The government naval reservation at Sandy Hook is, as the map shows, immediately above Highlands, and a good road leads into it, but no one is allowed to run a motorcycle or automobile onto the "Hook," or, as the Navy Department officially calls it, "Fort Hancock."

Nor can parties on foot go onto the government reservation without a preliminary arrangement, likely to take some time and cause considerable trouble. The officers at Fort Hancock have stringent orders that only citizens of the United States shall be admitted under any circumstances; and it is also required that any third parties who enter shall be accompanied on the reservation by those who have requested their pass. This is a matter of safety for strangers, as a great deal of firing is going on, especially "proving" of guns, and the government could not be responsible for the safety of visitors.

On the shore of the bay, just outside of Highlands, is Water Witch Park, a picturesque spot made famous by J. Fennimore Cooper's novel, "Water Witch." A summer home on this fine stretch of coast line, with the "Highlands of Navesink" as a background, embracing a profusion of marine beauty and frequent glimpses of trans-Atlantic and coastwise liners, the "Sandy Hook" fleet of fast passenger ships and many a sailing craft approaches the ideal.

The road which crosses the "Highlands of Navesink" to the stone church (an important junction of three roads, with no other name), and then nearly west on the Valley Drive to the lower edge of Atlantic Highlands, is not quite as good as that from Seabright to the Navesink River bridge, and more winding, but still picturesque and interesting. A right turn on First avenue will take you through the center of the town to the large piers, where connection is made between the "Sandy Hook line" of steamers and the trains of the C. R. R. of N. J. Contrary to the usual impression, these boats do not land on the "Hook," nor does the Cetral Railroad go north of Highlands village.

GETTING BACK TO THE COAST.

A pleasant way to complete the circuit back to the coast is to start southeast from Atlantic Highlands, running through the little hamlets of Navesink and Locust to Locust Point; here cross the bridge over the Navesink River, which is now seen for the last time on this

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trip, into Oceanic. After making a short left and short right turn at Oceanic into Bingham avenue, continue along the latter to its intersection with the Rumson road.

Turn square left on the Rumson road and run over a short stretch already covered on the way from Red Bank; again cross the railroad tracks at Seabright station, but this time turn right, starting down the coast. In the course of the next mile, the traveler will see many fine cottages built, like those between Seabright and Highlands, on a narrow strip of land between the roadway and the ocean. Low Moor, Galilee and Monmouth Beach are three small aristocratic summer colonies on the way from Seabright to Long Branch, but to the motorcyclist passing rapidly along, it is one uninterrupted string of summer homes.

There is a break in the continuity of the shore road coming into Long Branch, but the way is made clear by signposts and the wear of travel on the streets. After some vicissitudes, Long Branch is coming into its old-time popularity again, especially since the encroachments of the ocean have been stopped by the expenditure of large sums of money. A few years ago this ocean road was partly washed away, but it is now better and more secure than ever; and the whole ride to the fashionable "West End" is now lined with summer homes even more elaborate than those seen at Seabright.

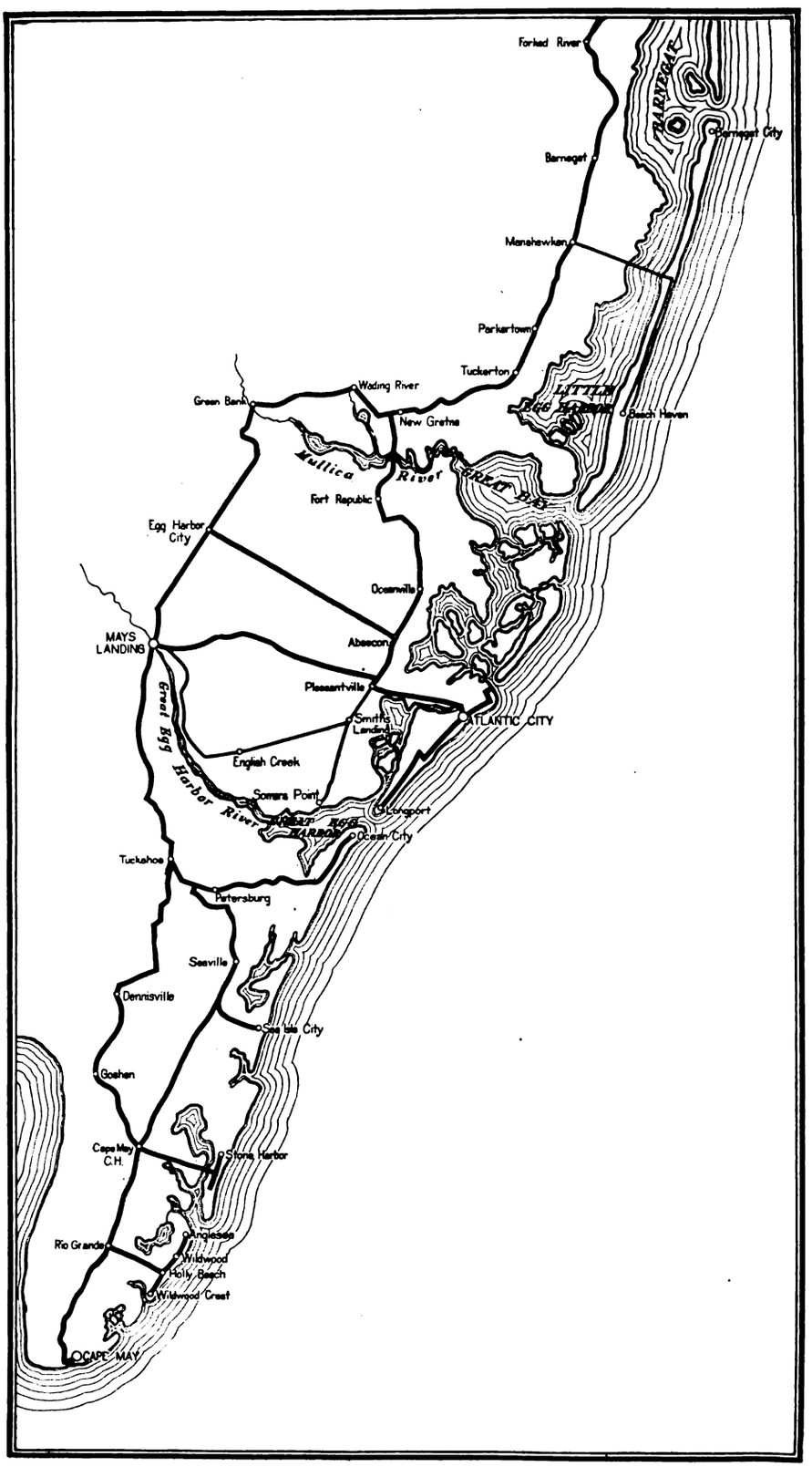
Long Branch was once the most popular resort along the Atlantic Coast, especially during the presidencies of General Grant; then Narragansett Pier, Bar Harbor, Atlantic City, Asbury Park and other places started in more nearly to divide the honor. Ocean avenue, on the way to the next summer village of Elberon, crosses beautiful little Takanassee Lake; a short distance beyond, at the beach end of Lincoln avenue (best identified by the slight "offset" it causes on Ocean avenue), can be seen the house where President James A. Garfield was taken after being shot by Gitteau, and where he died. It is still known as "Garfield Cottage."

AT ASBURY PARK AND OCEAN GROVE.

Deal Beach and Allenhurst are between Long Branch and Asbury Park, both located to excellent advantage in a rare combination of ocean and indenting lakes, several of the latter being crossed by all road travel up or down the Jersey coast. There are famous golf links at Deal, and at Allenhurst is the home of the Allenhurst Club, a large colonial building with conspicuous pillars, located on the corner of Corlies avenue and Paige avenue, where most tourists coming from Long Branch or above make the last turn for Asbury Park. During the summer the restaurant at this club is open to transients.

You cross Deal Lake into the city of Asbury Park on one of two bridges, both somewhat back from the ocean; on quick trips some time can be saved by riding straight down either Grand avenue or Main street, through a detour to the beach, and the principal hotels need only be a matter of fifteen or twenty minutes. Asbury Park has grown very rapidly and substantially since the waterfront was bought from "Founder Bradley." It is also becoming a more important route center, especially since the completion of a good road about two years ago from just opposite the Ocean Grove gates, nearly directly west to Farmingdale, thus making a good short route to Freehold, and giving another good one to Lakewood, via Farmingdale.

Ocean Grove, the great Methodist camp meeting resort, begins immediately south of Wesley Lake, but except for the gates—closed to strangers on Sunday—it looks like a southward extension of Asbury Park. Avon-by-the-Sea borders on Shark River inlet, which divides it from Belmar; both are fortunate in a rare combination of ocean and lake, furnishing varied entertainment to their large summer population. Belmar is of additional importance to the motorcyclist because the road that skirts the lower side of Shark River (or more properly bay), is a good, logical connection from this part of the coast to either Freehold or Lakewood via Allaire, the "Deserted Village." There is also a good connection into this road from Lake Como.



Lower half of the route from the Metropolitan district to Cape May, N. J., along the New Jersey seacoast, with Atlantic City a feature point on the way.

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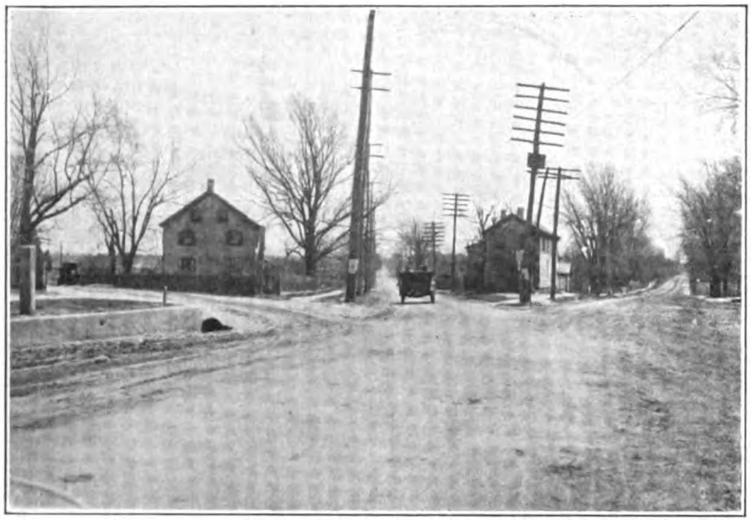

Not especially picturesque, but a strategic point—the triple fork on the Berlin Turnpike, the middle road leading to Atlantic City.

At Spring Lake—a growing resort, with some fine hotels—the main road winds easily along the lake, crossing Wreck Pond into Sea Girt. The latter is less built up than Spring Lake, and is the site of the New Jersey State Camp, as well as the place where important shooting contests, both military and civilian, are frequently held. Sea Girt is well adapted for these purposes, on account of its large area of level ground, not yet appropriated by the summer visitors. While Governor of New Jersey, Woodrow Wilson had his summer home at Sea Girt, and will probably retain it as President.

WHERE "ZIMMY" MAY BE FOUND.

The next town, Manasquan, is somewhat back from the ocean, and for those who prefer the salt-water breezes, somewhat diluted with pine, this locality is recommended. It is likewise an excellent place for the motorcyclist, who is also a fisherman, to stop. One familiar with the history of bicycle racing years ago will recall the name of Arthur A. Zimmerman, once the world's short and middle distance champion: "Zimmy," of course, races no more, but busies himself with the management of a summer hotel.

Below the town our road curves inland to secure a good crossing of the Manasquan River by a rather long bridge into Point Pleasant, one of the most important route centers along the coast. A glance at the map will show the good road extending down from Point Pleasant to Bay Head, Mantoloking, Lavallette and Seaside Park. Unfortunately, there is no road connection below Seaside Park, and while it is necessary to return the same way, the detour down this fine strip of seacoast is well worth the extra mileage to cover it.

Until the continuous shore road that has been confidently talked about for several years is built, it will be necessary for all road travel from Point Pleasant or above to turn almost directly west from that point to Lakewood; this is, however, practically a ten-mile boulevard of unusual width and straight except for one curve shown at the little intermediate village of Burrsville. Half of the entire cost of this road was paid by George J. Gould, whose country home, "Georgian Court," is the one great show place at Lakewood.

The Point Pleasant-Lakewood stretch necessarily adds to the normal distance between the upper coast and Atlantic City or Cap May, for at Lakewood one is as far from either of these places as when at Point Pleasant—and slowly but surely an equal excess distance must be covered in returning to the shore road below Toms River. Of course, the New York-Perth Amboy-Freehold-Lakewood route saves time, distance and numerous turns, and is, therefore usually taken for quick through trips; but there are no points of interest that way (unless one wishes to visit the Monmouth battlefield, which is west of Freehold, on the way to Englishtown), and tourist travel usually does well to go around by the coast, despite the extra 20 miles.

LAKEWOOD THE MID-DAY STOP.

When the New York-Atlantic City trip is made in one day, luncheon is usually planned for Lakewood; and, if time permits, a run around the city may well be included. Mr. Gould's estate is just north of Lake Carasaljo, quite a distance west of the business center and somewhat beyond the point where the turn is made for Atlantic City. When ready to continue the trip, take the most convenient street to River avenue, turn down that avenue, skirting the eastern edge of Lake Carasaljo into the fine stretch of road through the pinelands to Toms River.

Cross the bridge at Toms River (named after "Tom," an early Indian character), and curve left on the main highway; in a few minutes you begin to see a series of left-hand roads leading down to the ocean front at Forked River, Barnegat and other places, usually sign-posted to catch the eye of the traveler. One who is interested in deep-sea fishing and oyster gathering would do well to follow some of these roads to their end at salt water, especially if in search of a real "shore dinner," for nowhere in all the land are they better. Here, by dint of watchfulness and long hours of toil, large numbers of fishermen snatch a comfortable living from the turbulent deep.

Now and then there is a glimpse of a life-saving station, for occasionally the storms along the seacoast are sudden and severe. Almost invariably the only road back from the seaside to the main highway is the one used in traveling to it. Near Manahawken, a sleepy old place below Barnegat, a road has long been under construction to connect Beach Haven with the mainland, and thus do away with the infrequent boat service that has heretofore been the only dependence. Completion of this road has been promised for a long time; but it is not yet "officially" open, and until it is complete, road trips to Beach Haven cannot be planned with certainty.

From Toms River to New Gretna is one long stretch in Ocean County; there is little or no trouble in finding the way, as it is principally one road with very few forks. However, the stranger is likely to be disappointed in not seeing the ocean at all, if the main road is followed without detours by side roads to the coast, already referred to. Undoubtedly the reason for this is that the main road was laid down many years ago along the lines of least resistance.

IN ATLANTIC CITY.

Just beyond New Gretna, however, an important option begins, as the map shows; for the usual route to Atlantic City a square left turn is made to cross the Mullica River to Port Republic. This is the only part of the New York-Cape May route that is likely to be flooded in wet weather, when some stretches may be three or four inches under water, as the writer saw it on one occasion. In or after a heavy rain it may be better to take the longer way around through Wading River, Green Bank, Egg Harbor City and back to the regular shore road again at Absecon.

Under all ordinary circumstances, make the left turn as shown on the map just beyond New Gretna, crossing the long drawbridge over the sluggish Mullica River to Port Republic; thence along the one unmistakable road through Oceanville to Absecon, where a

Fine straightaway on the Shore Road between Lakewood and Toms River, N. J.

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large amount of travel for Philadelphia, via Camden and Hammonton, comes in from the right. The next place is Pleasantville, just beyond the center of which you turn left from the main street into Verona avenue, which becomes the boulevard across the lowlands to Atlantic City.

Tourists who remember the old road along the trolley line—under water several times a year, and never good—will be in a mood to appreciate what a good approach the great South Jersey resort has now. For the benefit of first-time visitors, it may be added that there are several hundred hotels in Atlantic City, most of which charge about 50 per cent. more than the accommodations warrant, as compared with other places. But if one has the time and patience to look around, discarding all until suitable accommodations are found at fair rates, sooner or later the search will be rewarded.

COMPLETING THE RUN TO CAPE MAY.

Probably 75 per cent. of the trips from New York to below Lakewood are scheduled to and from Atlantic City; and most tourists stop there even on the way to Cape May. But that is not necessary, for as the map shows, one may save turns, time and at least some distance on through trips to Cape May, by taking either the New Gretna-Wading River-Green Bank-Egg Harbor City line to Mays Landing—or of running into Pleasantville and turning right there on the prominent road shown from that point to Mays Landing. The latter option will give something over ten miles of fine wide road after leaving Pleasantville, with only two or three small houses, and where higher speed can be made with less danger than anywhere else I know of along an open road.

At Mays Landing both roads down from New Gretna come together to cross the bridge over Great Egg Harbor River, thence south on the one well-traveled road to Tuckahoe, from which point there is another choice of roads to Cape May Court House, one via Seaville, and the other through Dennisville and Goshen. If for any reason one desires to visit Ocean City or Sea Isle City, the former will necessarily be chosen, and reference to this recalls an unusual incident. Several years ago the writer was riding down this stretch when his neck was caught by a telephone wire that had fallen from the pole nearby. It was a bad contact at best, and at greater speed might have been serious.

On account of the large amount of improved road that way, much of the through travel goes down from Tuckahoe via Dennisville and Goshen to Cape May Court House—seeing as much of the ocean as via Seaville, which is none at all. From the town so named, because it is the site of the County Court House, there is one through line to Cape May, with a very important left-hand connection from the main road at the little, scattered hamlet of Rio Grande, to Holly Beach, Wildwood and Anglesea. When the road comes to an end, you turn sharp left, passing the Pennsylvania Railroad station to the beach at Cape May; that is the "Land's End" of New Jersey, as there is nothing in the peninsula below to interest the road traveler.

Every motorcyclist in the metropolitan district who is not familiar with it, should become acquainted with this long stretch of fine seacoast. Atlantic City and Cape May are, of course, much nearer Philadelphia than New York, which may account for the apparently much larger number of visitors from the City of Brotherly Love than from old Father Knickerbocker's domain. Here one can add to the delights of speedy travel (below Keyport), the salty ozone, fresh from the billows of old ocean and the fragrance of large areas of pine woods.

All the way from the Highlands of Navesink to Cape May is interesting country, its only drawback being the distance from the main road below Lakewood to the ocean, already referred to, and which will ultimately be remedied by carrying the Shore Boulevard all or nearly all of the way down to the lower New Jersey peninsula. It is true that occasionally one does meet with some pesky mosquito and its consort; but fortunately they are not speedy; and with a little more power they are left behind with the road that melts away in the distance. The inducements of the trip far outweigh the disadvantages.

Two Classes Only for Elgin Road Racers

Chicago Club Decides Against Having Both Single and Twin Divisions for Amateurs and Professionals in Big July Fourth Program—Over $6,000 Already in Hands of Committee to Defray Expenses.

REPORTS from the committee in charge of the national road race to be held over the Elgin (Ill.) course on July 4, under the auspices of the Chicago Motorcycle Club, are to the effect that the project looms larger day by day. It is estimated that it will cost $8,000 to stage the big program, and $6,300 is already in the hands of the Chicago club's committee. It is expected that the balance will be raised in ample time to carry the committee through its work with flying colors.

Instead of following the original plan to have four divisions, single and twin races for both amateurs and professionals, the club has decided to have only two events. The pro event will be over a 250-mile course, for machines not exceeding 61 cubic inches piston displacement, and the awards will be $500, $250 and $100, for first, second and third place, respectively. The amateur race will permit of using machines of the same rating, and the winners will receive merchandise to the values of $250, $125 and $75, as first, second and third awards.

The Elgin course is a little over eight miles long. It will be thoroughly guarded on the day of the race by State militia. Owing to the shortness of the course and the large number of participants the scoring presents a problem and the club has lined up officials as follows to cope with the situation: 100 scorers, 30 checkers, 50 flagmen, five timers nine judges, a clerk of the course and his assistants, five in number; the starter and his assistant; the referee and assistant and an umpire and two assistants. The only official so far named is Frank L. Valiant, who will act as starter. Mr. Valiant is also handling the publicity plans. The other officials will be selected in the near future, and many of them will probably be club officials, experienced in road events, who will make the trip from neighboring cities and states to be on hand for the big program.

One of the features will be a telephone system encircling the course, with stations at short intervals, so that the officials may be kept informed of developments at all times. The course is in excellent condition, and is to be oiled for the races so that fast time should be possible. The riders will be started at half-minute intervals, the amateurs leading the way. Five minutes after the last amateur the first professional will be sent off.

The Chicago club has already received a number of applications for entry blanks from owners of single-cylinder machines who feel that in such a long, closely-observed run they will have an even chance with the twins. There are indications that there will be as many contestants in each class as the committee will care to send out on the course.

THE LETTER OF THE LAW

ALEXANDER SCHWALBACH, who successfully engineered the protest of the F. A. M. against the passage of unfavorable motorcycle regulations by the New York State lawmakers recently, in the absence of Legal Action Chairman J. Leo Sauer, calls attention to the fact that the sidecar licensing matter has been satisfactorily disposed of by the insertion of a definition exempting "motor bicycles, motorcycles and motor tricycles" from the provisions of the act. The reference to "motor tricycles" is intended to eliminate pleasure sidecars from the motor vehicles subject to licensing.

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RAINY weather means a slack time for the dealer, and most men who repair motorcycles are always willing to talk "shop" during slack times. So one sloppy afternoon recently the writer floated into a metropolitan shop where repairing is a specialty and the talk soon drifted to the subject of magnetos. It might be stated here that Al, the repairman in this particular place, gets most of the magneto work within a radius of 50 miles, and is perfectly at home with any juice-generating apparatus.

"If I depended upon magneto repairs entirely," said Al, "I might just as well take to driving a moving van. There would be more money in it, for if you let a magneto alone it will grind out the juice day in and day out with only a kind word and a little oil each month or so. It's another story when Inquisitive Ike makes up his mind that the little steel jigger that wiggles every time it hits the what's their-names is working too slowly and needs loosening up, or when he figures that a bath of oil will help the wiring to turn more freely in the armature-tunnel. I suppose that I ought to rejoice when the results are handed over to me to cobble back into operating order, but I hate to see anyone treat machinery as if it were a bug that had to be dissected. So I generally give the rider some advice on the subject of keeping his hands on the grips and off the magneto."

HOW DIRT CAUSES TROUBLE.

"Well, what are the commonest things that happen to a magneto" I asked. "I have straddled magneto mounts for several years and about all I have had to do was make a few adjustments on the platinum points. Practically the only tool I had to use was a Swiss file and the little combination wrench and gauge that came with the machine."

"As I recollect, dirt in the contact-maker casing is the chief trouble that riders who tour considerably encounter," said the repairman. "You can't include the boulevard burners in this, as they don't often go out of sight of a shop. When the magneto is in front of the motor, no mudguard flapper will keep dirt away from it, and you'd be surprised how dust will creep in where the cover fits into the casing. When enough gets in, the motor will generally pull up short, as there will be no break between the points, even though they separate, and the high-tension current will not be built up enough to cause the spark to jump between the points of the plug. When a rider goes out and gets water also inside the casing, there will be a fine mud formed which will interfere with the movement of the interrupter, and cause it to stay open. No current is generated and the motor refuses to mote."

"But a rider could easily see that if he didn't get any spark at the plug, something was wrong with the magneto," I suggested, "and make an examination of the only part that he could get at—the contact-maker."

"Yes, but since they generally have trouble with the carbureter," retorted my friend Al, "they pedal their heads off, or change the mixture, and come to the plug last of all. If their carbureter was set right, it would next be dirty fuel, and then the magneto. I'll tell you the best way of making sure, before the thing happens: look at the contact-maker regularly and clean the casing with a rag moistened in gasoline. Follow the same process if the stop is mysterious when riding; a handkerchief is the thing to use. If a rider uses the rags generally found in his tool box he will only cause more trouble."

WATER AND OIL BUGABOOS.

"How about water or oil in the magneto" I asked. "One maker has had lots of machines returned for repairs with water and oil inside the armature-tunnel."

"I never had any case of water or oil in the tunnel," replied Al, "and don't know how it could get there unless the rider that owned the machine ran it through a pond or cleaned the outfit with a hose. With the enclosed type of magnetos it would be hard to get any water inside."

"Yes, but how about getting it in from the other end—the drive end," I queried. "Probably you have never thought of it, but I had a case a short time ago where the whole armature winding was put out of business through oil passing into the tunnel."

"Must have been a poor sort of mag.," was Al's reply.

"No, it was the fault of the maker of the machine," I insisted. "The gear-wheels of the magneto train were too close a fit in the casing, and the oil was pumped up all the time and some of it squeezed out onto the magneto armature shaft. You know how oil or drops of water run along a shaft. Well, some of the oil kept on going into the tunnel and soaked the windings, and Mr. Magneto soon quit work."

"Seems to me I've heard of that before," said Al, "and now I see how it could happen. All you need to do is to vent the casing around the shaft and the trouble could not occur. That's just what ought to be done, and some of the makers whose machines had that trouble are doing it now. I know what water does to a coil, but never had it soak up a magneto winding yet. I've had soaked armatures, but I usually send them to the makers. If not, I do the job myself, and it's pretty nice work. But the next thing to dirt and water is your usual trouble, pitted points."

"I use a Swiss file, one dead smooth," I explained, "for trimming them up, and also OO-emery cloth. As for adjustment, an ordinary business card will answer if I have no gauge."

EMERY PAPER PREFERABLE TO FILE.

"Nothing doing on the file for mine," asserted Al. "It's all right for you, but I can't see any ordinary rider with a file without having visions of forty miles from home and mother, and no juice at all. No, if a rider has to do any trimming the emery cloth is the best, and the business card gauge is too crude. The magneto people have a gauge for testing for shorts and setting points, and you can get one anywhere that supplies are kept. Business cards vary from paper thinness to match-box thickness."

"Do you get many cases of broken carbon brushes?" I asked.

"Not many," said Al, "but when I do and the rider is stopping off to get a new one, I

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always tell him that he can limp along pretty well if he will turn the brush upside down in its holder. The symptoms are a pull-up of the motor while running or no starting at all. But a broken brush is unusual, and would be one of the last things I would look for. I think the Germans and English have it on us for touring. They carry a set of spare parts for the magneto in a pocket-case, and if a man will study up the book concerning his magneto and use one of these cases, he will not have any trouble that he can't remedy. But as I said before, trouble with a magneto is very rare nowadays.

"By the way," said Al, "What's the latest in spark plugs?"

"You have me," I answered. "I noted about fourteen different makes recently that were listed in one accessories catalog, and there must be at least that many more in the market. Some of them I have only seen in illustrations, but they seem to favor the multi-point type."

"Multi-points or rings and one point, they all seem to work well until water hits them; that is, the porcelain plugs, and if they are not in the rear cylinder of a twin," was Al's remark. "The man who can guarantee a regularly-firing plug that is proof against oiling will be hailed as a benefactor by everyone that uses motors. Give me a mica plug any time in preference to a porcelain one. Three points are enough on any plug, as far as my experience goes."

VARIOUS SPARK PLUG TYPES.

"I don't agree with you as to the way in which porcelain plugs crack when water is thrown on them," I objected, "and personally I haven't had much trouble with the rear plug so far, as I don't over-oil. A mica plug is good as long as it is put together right, and there really ought to be a cover over the mica. I have a sort of leaning toward a soapstone plug, in preference to either of the other kinds."

"I've never used one," said Al, "but, anyhow, as far as the plugs are concerned, it's poor lubrication that causes the sooting. You have to be careful in choosing a plug to get one that will stand the heat of the magneto spark. Points on a plug sometimes burn off in short order, leaving the rider stranded somewhere in the woods. Or, as happened to me once, he may find himself near an auto supply house with dozens of plugs, all ½-inch or some other insane standard about as useful as a corn-cob to me. I stick to one make, but I know of several others that will work well in case my kit should be empty. In going on a tour, I always carry an extra set of plugs, plus one more, so that I can stand three rear cylinder sootings before I have to do any cleaning. My front cylinder has had the same plug in it for over 900 miles.

"That's how they all ought to do," continued my friend Al. "I don't think it's necessary to carry three extra plugs, but it certainly isn't working on the wrong side. A plug-cover is a good thing for those who ride in all seasons, and I use one on each plug. It also saves unexpected electric treatment if you have on a pair of thin trousers and accidentally make a contact with the terminal. Carry the spare plugs in a cloth roll in your pocket, and don't let them mess around with a monkey-wrench and a pair of pliers in the toolbox if you want to keep them in trim."

Just about this time a rider entered with a magneto that he said had lost its magnetism, but Al showed him that a broken brush was to blame, and after some further observations about jumping hastily at conclusions, the writer took his departure, leaving Al to talk matters over with the new arrival.

A PLEASANT SIDECAR TRIP

IN A letter to the Majestic Mfg. Co., of Worcester, Mass., Mr. and Mrs. J. W. Newton, of Fall River, Mass., tell of a 210-mile trip they made on Sunday, May 4, with their Excelsior machine and Majestic sidecar. They are enthusiastic in their praise of the outfit, which carried them over the course without a sign of trouble, mechanical or otherwise. They left Fall River at 4:30 a. m., riding along the Blackstone Valley to Woonsocket. On reaching Worcester at 7:05 a. m., they were welcomed by Mr. Persons, of the Persons Mfg. Co., and a representative of the Majestic company. About 8:25 a. m. they were under way again. They climbed every

grade, including the well known Leicester Hill, without using the clutch or pedaling. The motor was geared 4¼ to 1. They arrived in Palmer at exactly 10 a. m., and left at 1:45, passing through Worcester at 4, and arriving in Fall River at 7:45 p. m. Both the machine and sidecar are equipped with Goodyear studded tread tires.

AN order for six 1913 Indians for the Detroit police department has just been filled by the Metzger Motorcycle Company, of Detroit, Mich. This is the second order placed by the city with the Metzger company.

BALTIMORE BREVITIES

BALTIMORE, MD., May 12.—At the Maryland M. C. meeting on May 7, F. S. Long, secretary of the National Capital Club, was one of the speakers. He came over to talk of the unjust legislation against motorcyclists in the District of Columbia. The local riders are interested in the fight being made by the Washington boys, so the club voted $25 toward the legal fund of the Washington club.

Last Sunday the run of the Maryland club was to Conowingo and Bel Air, Capt. Johnson leading a large bunch of riders over the fine pikes in Harford County. The section traversed is a beautiful one at this time of the year, and with the going good the tourists had a fine time.

Interest in the spring tour of the Maryland M. C. is increasing daily and many riders have entered. The dealers have taken considerable interest in the reliability run and have donated prizes.

Howard A. French & Company have just received the fourth carload of Indians, with two more carloads due this month. The machines are being disposed of as fast as they are received.

The Consolidated Gas and Electric Light Company has just added eight new Indians to the twenty or more now in use by its service department.

"Happy" Mears is making such a success as a teacher of novices that he is seriously considering opening a night school for motorcycle riders if he can obtain an enclosure large enough.

Matt Gault, former captain of the Maryland M. C., who sold his machine last fall, cannot resist the hum of the motor and expects to be out on the road again with a new Indian in a few weeks.

HUDSON RIVER RUN

A SUNDAY run to Nyack was held by members of the Newburgh M. C., of Newburgh, N. Y. Leaving Newburgh the riders went to Tarrytown by way of Fishkill and Peekskill. At Tarrytown they took the ferry over the Hudson River to Nyack, and from there returned to Newburgh, passing through Tuxedo.

Herz & Co., 295 Lafayette street, New York City. (Herz magneto & Bougie Mercedes spark plug.)

Splitdorf Electrical Co., 98 Warren street, Newark, N. J. (Splitdorf magnetos and spark plugs.)

Bosch Magneto Co., 206 West 46th street, New York City. (Bosch magneto and Bosch spark plugs.)

Jeffery DeWitt Co., 55 Butler avenue, Detroit, Mich. (Standard spark plugs.)

Simplex Machine Works, 45th street & 6th avenue, Brooklyn, N. Y. (Simplex magneto cutouts.)

H. W. Johns-Manville Co., New York City. (J. W. spark plugs.)

Ericsson Mfg. Co., 1115 Military road, Buffalo, N. Y. (Berling magnetos.)

Emil Grossman Co., 250 West 54th street, New York City. (Redhead spark plugs.)

V-Ray Co., Marshalltown, Iowa. (V-Ray spark plugs.)

A. R. Mosler & Co., Mt. Vernon, New York. (Mosler Spitfire spark plugs.)

New York Mica & Mfg. Co., Auburn, N. Y. (Auburn spark plugs.)

Benford Mfg. Co., Mt. Vernon, N. Y. (Monarch Motorcycle Mica spark plugs.)

Hagstrom Bros. Co., Lindsborg, Kansas. (Hagstrom spark plug.)

THREE-DAY EVENTS

A NUMBER of this season's holidays fall on Friday and clubs are taking advantage of this by planning three-day runs for Decoration Day, Fourth of July and Labor Day. The Harley-Davidson M. C., of Philadelphia, is among the clubs holding three-day events on these occasions. On May 30 the club will have a run to Stone Harbor, N. H. One of the features of this run will be a race meet on the 7-mile beach at the Harbor. The July Fourth and Labor Day runs will be to the same place.

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TOURING CONDITIONS in the GREAT CENTRAL WEST

By ROBERT BRUCE

TYPICAL BRICK ROAD IN THE CENTRAL WEST
NORTH RIDGE ROAD · CUYAHOGA CO. OHIO

THE zig-zag line made up of crosses and circles on the map between Toronto, Canada, and Wheeling, W. Va., which appears with this article is intended to give graphic form to an impression that usually grows upon anyone who travels observingly across the territory to which it applies. In a touring sense, at least, to the right of this irregular line from top to bottom of the map is East; to the left of it is Central West. Hamilton, Ont., the Niagara frontier, Buffalo, N. Y., Erie, Meadville and Pittsburgh, Pa., and Wheeling, W. Va., are the neutral points, half eastern and half western, as the Toronto-Hamilton-Niagara Falls, Buffalo-Erie, and Erie-Pittsburgh lines are neutral routes; but the territory on either side of them is openly more of the East or more of the West.

One rides into Hamilton from Toronto or beyond, or from Niagara Falls, through a portion of Ontario so much like northern or western New York State that sometimes only the uniforms of the police and postmen remind one of being in another country. But in going farther west—either to Windsor and Detroit, or Sarnia and Port Huron—you are speeding over another portion of the same province almost as level as Indiana or Illinois.

AN INTERESTING TRANSFORMATION.

The change is distinctly marked in a day's run, though naturally gradual to the eye. In turning the corner at Buffalo, on the main-traveled highway from New York State and New England to the Central West, you take a southwesterly direction for a trifle less than a hundred miles along the "Lake Shore Road," during which the transformation from East to West is almost imperceptible. But soon after passing Erie, Pa., Ohio characteristics begin to appear, and predominate for the next 250 miles.

Motorcycle tourists starting from points in Pennsylvania, Maryland, the District of Columbia, or northern Virginia, crossing the Alleghenies on their way into the West, usually head for Wheeling or Pittsburgh, two of the most important route centers of their size in the United States. Wheeling is a considerable distance to the west of the mountains, and soon after going through Pittsburgh, one begins to leave the rough and wearing roads encountered east of that city for the easier grades and more diversified scenery of the Ohio valley—a change which continues slowly but surely across Ohio to the levels of Indiana and Illinois. Only the Old National Road—that great, long, wide strip of rolling highway from Cumberland, Md., to Indianapolis, Ind., survives in any marked degree the visible change from East to West.

LAKE TRANSPORTATION A FACTOR.

The situation of Lake Erie, in the direct line of road travel between the East and the Central West by the northern group of routes, makes it a factor of unique importance, so that motorcyclists frequently find it desirable at times to use the boat service instead of riding all the way around either side of the lake. Naturally the greatest amount of travel is to and from the terminal points—Buffalo, Cleveland, Toledo and Detroit—between all of which one is carried in a night, saving a day, or perhaps more, as compared with the all-road trip. These boats are especially convenient when one is short of time or happens to strike bad weather.

By shipping from Buffalo to Detroit, or vice versa, one misses some fine touring through lower Ontario, though the slight delay at the customs, and the necessity of putting up a deposit or taking out a bond keep many from going that way. However, this is not as much trouble as is often supposed, and the deposit can always be received back when leaving the province.

Between Buffalo, Erie, Ashtabula and Cleveland, along the south shore of Lake Erie, stretches one of the best 200-mile roads in the country; of course there are no customs this way, and lake transportation does not figure heavily. While a day or so can be gained that way, it would be at the expense of the best single part of the Buffalo-Chicago through line. But the road between Toledo and Detroit, along the western edge of Lake Erie, is one of the poorest in the Central West, and at certain seasons of the year is utterly unfit to travel over. For this reason the boat lines between Detroit and Cleveland, and especially between Detroit and Toledo, carry many automobiles and motorcycles that under normal conditions would make these trips over the roads.

EASTERN VS. WESTERN ROADS.

There is and must always be a marked natural difference between the average roads

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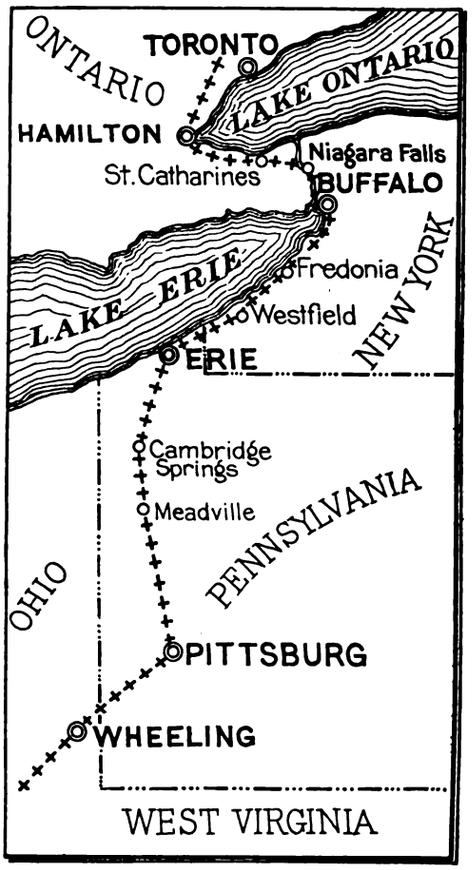
of the East and the West, based principally upon differences in soil and climate, extent of territory traversed, density of traffic, and comparative taxable value per mile of highway. Eastern roads were almost always laid out along lines of the least resistance, and without regard to the points of the compass —sometimes to penertate a wilderness, frequently to take advantage of the comparative level of a stream, often merely to connect pioneer settlements by the easiest way at the time. The next generation invariably followed in the same paths, only vastly increasing the amount of travel; in time extensions and improvements were made, but principally on the old lines, the result of which is that the East must always have a picturesque but unscientific road system.

Most of the Middle West was prepared for settlement in an entirely different way, an important feature of which was that the roads were generally decided upon and marked out in advance, instead of being left to the chance tendencies of travel. The unbroken prairie was easily divided and subdivided into squares and rectangles, out of which States, counties, townships and sections were staked out as the eastern surveyor would mark off a city lot or a ten-acre farm. Naturally the more important western highways were laid out along convenient boundaries—a system at times varied by special conditions, such as the interference of a river or lake, or the necessity of reaching some important center by a road built out of the regular order.

A native of the Central States almost invariably confines his directions to the points of the compass, telling you to go so far "east," "west," "north" or "south," instead of directing you to "turn right" or "turn left," as has always been the custom in the East. Inquiring strangers are also told to "angle" right or left, or (in exceptional cases), to take the "diagonal" road—terms frequently confusing at first but easily understood in actual use.

KINDS OF ROADS YOU MEET.

These differences become apparent to the easterner soon after he enters Ohio, and they continue practically to the foothills of the Rockies, where the system of square or "checkerboard" roads found generally throughout the Central West again becomes impracticable on account of the rough and broken nature of the country. Western roads will not average as good as the roads East, in part because the right kind of building materials are comparatively scarce, as they must always be in a country of deep, rich soil, given over almost entirely to agriculture. Nor can they be traveled on an average as early as eastern roads, especially in the Great Lakes district, where there is enough clay to make trouble until thoroughly dried out; even May is too early in case of a wet, late spring. The mileage of macadam is insignificant, and that of gravel a very small proportion of the whole, while brick is gaining very rapidly in favor throughout all the central States; but it will require many years to make much of an impression on a total mileage almost beyond comprehension.



To the right of the heavy crossed line is East; to the left is the Central West.

Iowa, for instance, has about two miles of highway to one in the State of New York, where the proceeds of a $50,000,000 bond issue have been spent without completing the most important trunk lines laid out in the law under which the money was raised, and without adequate allowance for proper maintenance (and another bond issue of the same amount has been authorized). The Hawkeye State could not possibly follow out the same plan with the larger mileage and less population and wealth. A sum equal to the taxable wealth of all the real estate in Missouri —including the cities of St. Louis and Kansas City—could easily be spent on the roads of that great State, still leaving much to be desired; and the same is true generally of all the territory between the Alleghenies and the Rocky Mountains, while in the newer States, additional thousands of miles must be laid out within the next few years.

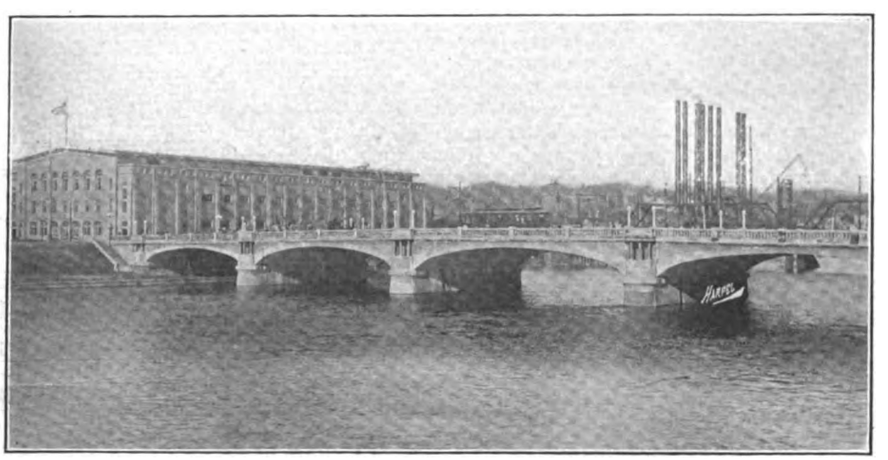
Unfortunately, the old idea of "working out" the road tax still prevails in many sections, though it is being gradually superseded by the money system, now practically universal in the East. A township might as well pay its school taxes the same way, by calling upon each landowner to take his turn at teaching the country schools, instead of paying a tax and hiring a trained teacher. Another objection to the labor system is that the roads are often worked at the wrong time of the year, and usually neglected when they need attention most.

HOW THE "DRAG" IS OF VALUE.

A relatively new but important factor in keeping the roads of the prairie States in good condition is the King drag—commonly known as the "split-log" drag—usually made at home at little or no expense. This has been of immense value on western highways, which might otherwise receive no attention from one year to another. In many sections the farmers are enterprising enough to have these drags always ready for use, and go out voluntarily at the right time to level the ruts and smooth the surface generally; and on some of the most important routes whose upkeep is in the hands of organized associations, the farmers are paid enough for the work to encourage them to do it when most needed, even at some inconvenience to themselves.

Along many portions of the Omaha-Lincoln-Hastings-Denver route, farmers have pledged themselves to maintain this road past their respective farms. So great is the enthusiasm of certain communities that as high as four and five thousand dollars' worth of work has been freely given. There is one community especially, just west of Atlanta, Nebraska, where the farmers were so determined to have the road put in the best shape, that they opened their farms and permitted the Executive Commission of the Omaha-Denver Goods Roads Association to send engineers to lay out a new road through their property. Not only did they give the grounds, but also gave their money and labor to cut down the hills, building bridges and maintaining the roads in general through this locality.

Tourists from the East, planning their first trips into the Central West, should bear in mind that the greater part of the territory between the Allegheny Mountains and the Rockies is fair-to-good traveling in dry and settled weather; but the agricultural sections are usually difficult or unpassable for two or three days after heavy rains. They are at their best in the late summer or early fall, when ruts are smoothed out, and the clay stretches (found too frequently for comfort, especially around the Great Lakes), are thoroughly dried out. One who travels extensively in the prairie country must be prepared for a great deal more dust in



The substantial bridge over the Des Moines River, at Des Moines, Iowa.

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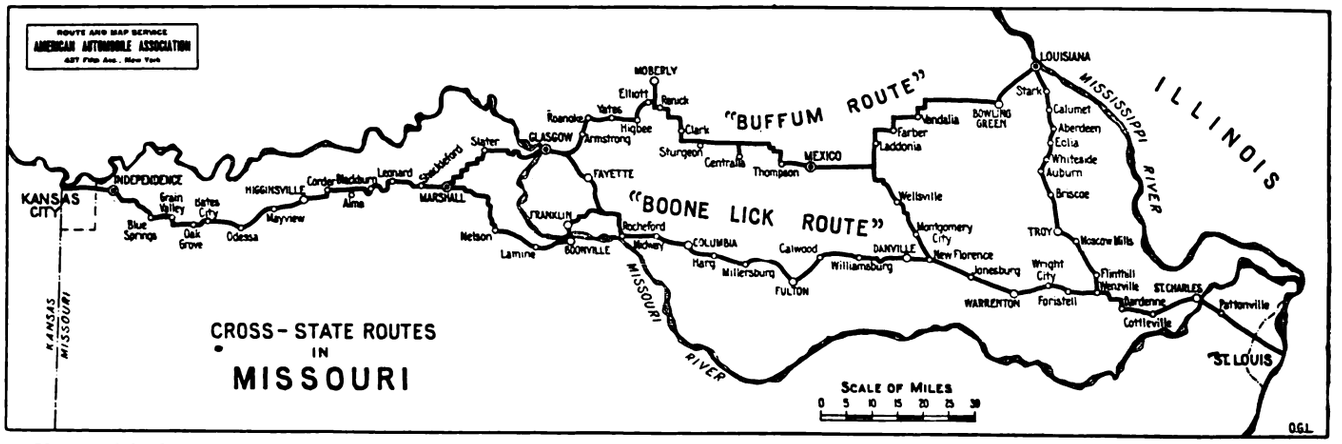
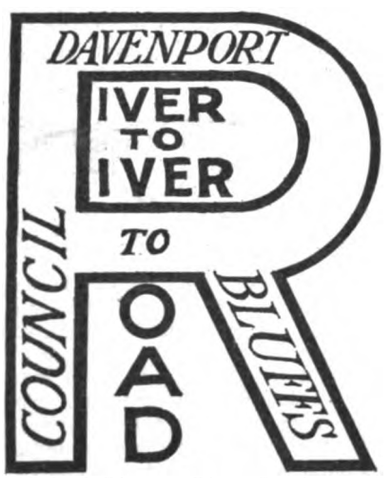


Very spirited competition has developed between the various routes across Missouri. The upper way is commonly called the "Buffum Route" from its long and persistent promotion by Col. F. M. Buffum, of Louisiana, Mo.

dry weather than would ordinarily be found in covering the same distance in the East.

Rain and thunderstorms are also more sudden, and sometimes almost tropical in their fury, so that some kind of waterproof should always be a part even of the lightest equipment. Distances between towns and cities are naturally greater than in the older States; and it is always well, especially for the stranger, to carry some light lunch. Any good brand of eating chocolate (not confectionery), is recommended.



Symbol of River-to-River Road. Designed and copyrighted by Robert N. Carson, Iowa City, Ia., and used with excellent effect.

In some of the older States, especially Ohio, Indiana and Kentucky, the principal cities and towns are connected by well-traveled "pikes," which, though not always kept in good condition, are generally preferred to the ordinary dirt roads in the same territory. While there are some excellent stretches in the northern part of that State, Illinois as a whole is extremely backward in the good roads movement, though signs of a greater interest are now apparent. Consistent progress is being made in Wisconsin and Missouri, both of which have better road building materials than Illinois.

One annoyance in the past has been the lack of signboards, particularly at road intersections, often miles from any opportunity to inquire the way; but this primitive condition is being remedied now, and some of the most important signboard campaigns in the United States are being carried on in the prairie States. In the newer sections, the traveler still finds it necessary to inquire his way from one city or town to another, but as through travel increases, the trunk-line idea is taking root, and in most cases is being planned with great care. In no other section of the country will mistakes in laying out through lines of travel be more difficult to correct at a later day.

Motorcycle tours between the East and the Central West have probably doubled in number within the past year—due very largely of course to the increased sale of machines, but in no small degree also to the better knowledge of the roads and the improvements in maps, though the latter work is still in its infancy. A surprising feature is the number of eastern trips made by motorcyclists whose homes and business interests are west of Cleveland or Pittsburgh. They usually allow plenty of time, and travel largely between the prosperous towns and cities of the Central West, and New York, Boston, Philadelphia, the Atlantic coast resorts, the Berkshires, Adirondacks, Catskills, Poconos, etc.

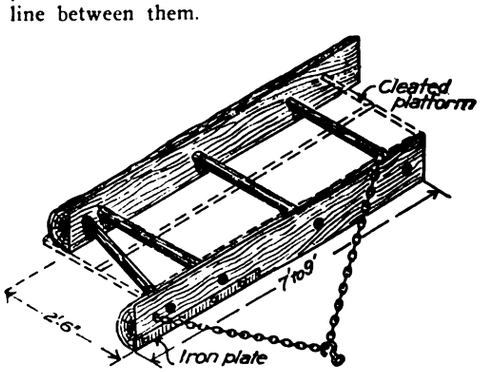
There is also an immense amount of touring in the form of inter-city trips, such as between Cleveland, Columbus and Cincinnati; Detroit, Jackson, South Bend and Chicago; Chicago, Milwaukee and Madison; Chicago, Galesburg and Peoria; Chicago, Des Moines and Omaha; Wheeling, Columbus, Indianapolis, etc., with considerable, but naturally less, between more widely settled cities, like Kansas City, St. Paul, Louisville and Grand Rapids.

NEW ROAD BUILDING ERA AT HAND.

The Central West is still a section of expansion, construction and new enterprises in many directions; with special emphasis now on good roads; and nowhere else is this progress better exemplified than in the enterprising and prosperous State of Iowa. One of the most interesting and important road developments up to the present time in the United States is the "River to River Road" across that State from the Mississippi at Rock Island—Davenport to the Missouri at Council Bluffs—Omaha. This is a "dragged" road about 380 miles long, passing through Des Moines, capital of the State, a dozen hustling little cities with from 5,000 to 25,000 inhabitants each, and some 30 small towns and villages; over 600 farm-houses front the road, and more than 1,500 stand within a mile of it.

When the idea was first taken up, committees of business and professional men and farmers in each county along the line were quick to assume the responsibility and expense of preparing their part over a route shown in considerable detail in one of the diagrams accompanying this article. There was naturally a contest over rival routes, but in the end differences of opinion were harmonized and plans for the actual work begun. A characteristic symbol was adopted, not only for use on the literature of the association, but also as a road sign on the route itself. The King drag was brought into use in large numbers, fills and cuts were made when necessary, and in an incredibly short time an excellent highway in all weather was provided across the full width of the Hawkeye State, over a route probably destined to become part of a great modern road between Chicago and Denver.

The cities of Des Moines and Davenport are especially interested in this new enterprise, because what has generally been considered the standard tourist route across Iowa entered the State by crossing the Mississippi at Clinton, running nearly straight west through Cedar Rapids, Marshalltown, Ames, Boone and Carroll to Dennison. From Dennison a decidedly southwest angle was taken to the town of Missouri Valley, and then almost directly south to Council Bluffs, where the Missouri is crossed to Omaha. This left Davenport about 40 miles to the south from Clinton and Des Moines about 34 miles south from Ames, and encouraged the laying out of another route, which should pass through these cities and take in the very many prosperous towns on the long and practically only line between them.



Sketch of the "King Drag," the little wonder that has helped to develop many of the roads of the great agricultural west.

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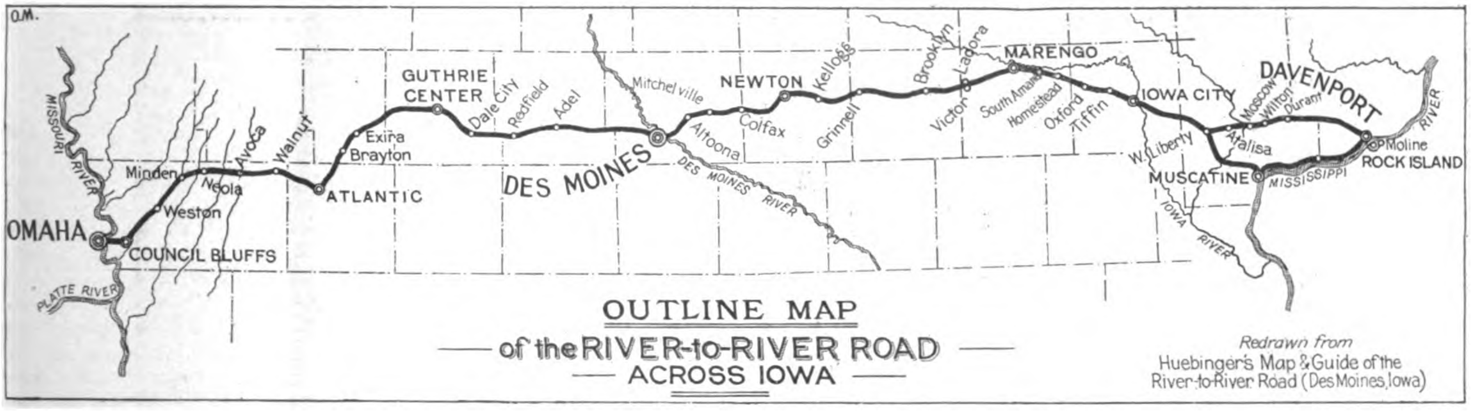
When the Governor went over the road, the association decorated practically every farmhouse across the State with American flags; and so well organized was the enterprise that on one occasion nearly every foot of the "River to River Road" was "dragged" in a single hour. On a stated day, bands about 18 inches in width were painted on the telegraph poles at every corner and cross-road for 380 miles, in order to make it easy for the tourist to follow the through route; in addition every corner and cross-road has an ordinary road sign. The sight of the big "R" at once shows tourists that they are on the "River-to-River Road," and makes it unnecessary for them to stop and read other signs of various sizes and descriptions.

The great value in this plan is that it definitely interests the farmer, who has felt for years the need for better highways; but, except in a very limited way, he has not realized much of his hopes in that direction. Personal responsibility was established as never before, and the results were quick and definite. "Dragging" the principal tourist roads in Iowa has spread rapidly all over the State; important as the "River-to-River Road" has been to Iowa, it is proving still more valuable as an object lesson to the rest of the Central West, showing what can be accomplished by the right sort of co-operation at relatively small expense.

Road improvement in the Central West will make more rapid and substantial progress in the future than in the past; and route compilation and map making will keep pace with it, especially since State pride has come to be a factor. In some parts of the West the Government maps are still fragmentary, and where this is the case, private enterprise finds the cost of original mapping almost prohibitive. With the geological survey basis to work on, however, the cost is not more than one-third or a quarter, and the results naturally very much better. In the reasonably near future this basis will be sufficiently complete to justify a beginning on maps of the United States like those of Europe, which will be another long step forward. Meanwhile the whole Central West is alive with good roads interest.



Gunning for Motorcyclists on the Wing

California Riders Who Gave a Vicious Hound His Quietus in Sonoma County While on Camping Trip Carried Away Several Bird-Shot in Evidence of Irate Farmer's Handiness with a Shot-Gun.

By Joc W. W.

MOTORCYCLISTS of the East may have some advantages not enjoyed by the rider in Pacific Coast territory, but when it comes to variety in road trips I'd like to wager my last ducat that we lead the world. If you entertain doubt in this connection read on. I believe I can convince you that there are certain brands of excitement open to the motorcyclist of southern California, for example, that rarely if ever enliven things for roadsters in other parts of the country. Give ear—or perhaps I should say eye.

Not a great while ago a crowd of good fellows camped at Mirabel Park in Sonoma County, California, close to the Russian river and Mark West creek. There were twenty-eight members in our party and a number of them had taken their motorcycles. My friend Roy and I were among this number. It was only natural that when anything was needed from town we should be called upon to trundle out our machines and ride to Forestville, a place of about two hundred inhabitants, lying four miles distant. The road from our camp to Forestville was very picturesque, and as a rule we did not mind the trip.

A MIX-UP WITH A DOG.

On chugging away from the camp our machines dropped as if by magic into a deep canyon, with tall redwoods lining the road and arching overhead. In this cathedral-like passage it was quite cool and dim, but two minutes later we emerged into the bright sunlight and for an instant we could hardly bear the glare in our eyes. On the particular trip I have in mind we stopped at a farm house for a glass of milk, then helped ourselves to several juicy peaches and continued our trip. After going through a ranch we struck the main road and just as we turned to take a downgrade a big jack-rabbit bounded into the road and whisked down the stretch ahead of us. We were "going some," but that rabbit left us as if we were standing still.

We opened up another notch and upon turning a second bend we saw four dogs in the road. The going here was sandy and we were compelled to travel slowly. As a consequence the dogs snapped at our legs and made themselves generally disagreeable. Finally one of them managed to nip my ankle, and as might be expected I "riled" up a bit. I jumped off my machine, grabbed a good-sized rock and whanged that dog on top of the head. He rolled over. I must say it was a good shot. The other dogs ran away.

PATCHED UP BY THE VILLAGE DOCTOR.

So much for the dog. Now for the farmer. Just as we were mounting our machines again the owner of the pack of hounds appeared with a shot-gun in his hands. He ordered us to stop and explain the killing of the dog, but we decided to be on our way. We were hitting up a pretty good clip when the old pirate blazed away at us. We were not over forty or fifty yards away from him, and we heard most of the shot buzz past. One of the small shot struck me in the back of the neck and Roy carried off a shot in his cheek.

We managed to keep our machines in the road, so the farmer did not bag his game, but he certainly did leave his marks on us. We were not seriously hurt, and half a mile up the road we stopped and compared notes. Then we hustled on to Forestville and visited the doctor, who was also the blacksmith and village clergyman. He patched us up with court-plaster and charged us four bits apiece. We did not grumble at this, for in thinking the matter over we decided that we had come off quite lucky. When a farmer blazes plumb at you with a shot-gun from a distance of only fifty yards some one is liable to be badly hurt, so things might have been much worse.

After making the purchases for the camp we strolled into a candy store and drank iced-cream soda. It was the first soda we had enjoyed since leaving Oakland and it tasted mighty good. Two hours later we refilled our gasoline and oil tanks and started on the return trip. We took the Guerneville road instead of the route followed on the out trip, as we did not care to take chances on another charge of bird-shot.

What would eastern motorcyclists have to say about touring conditions if they went through a few experiences similar to the one described above? They would probably wear armor or give up their motorcycles; and they could hardly be blamed. I do not mean to imply that eastern riders lack nerve, but simply that they are unaccustomed to the brands of excitement served up from time to time for motorcyclists in our section of the country.

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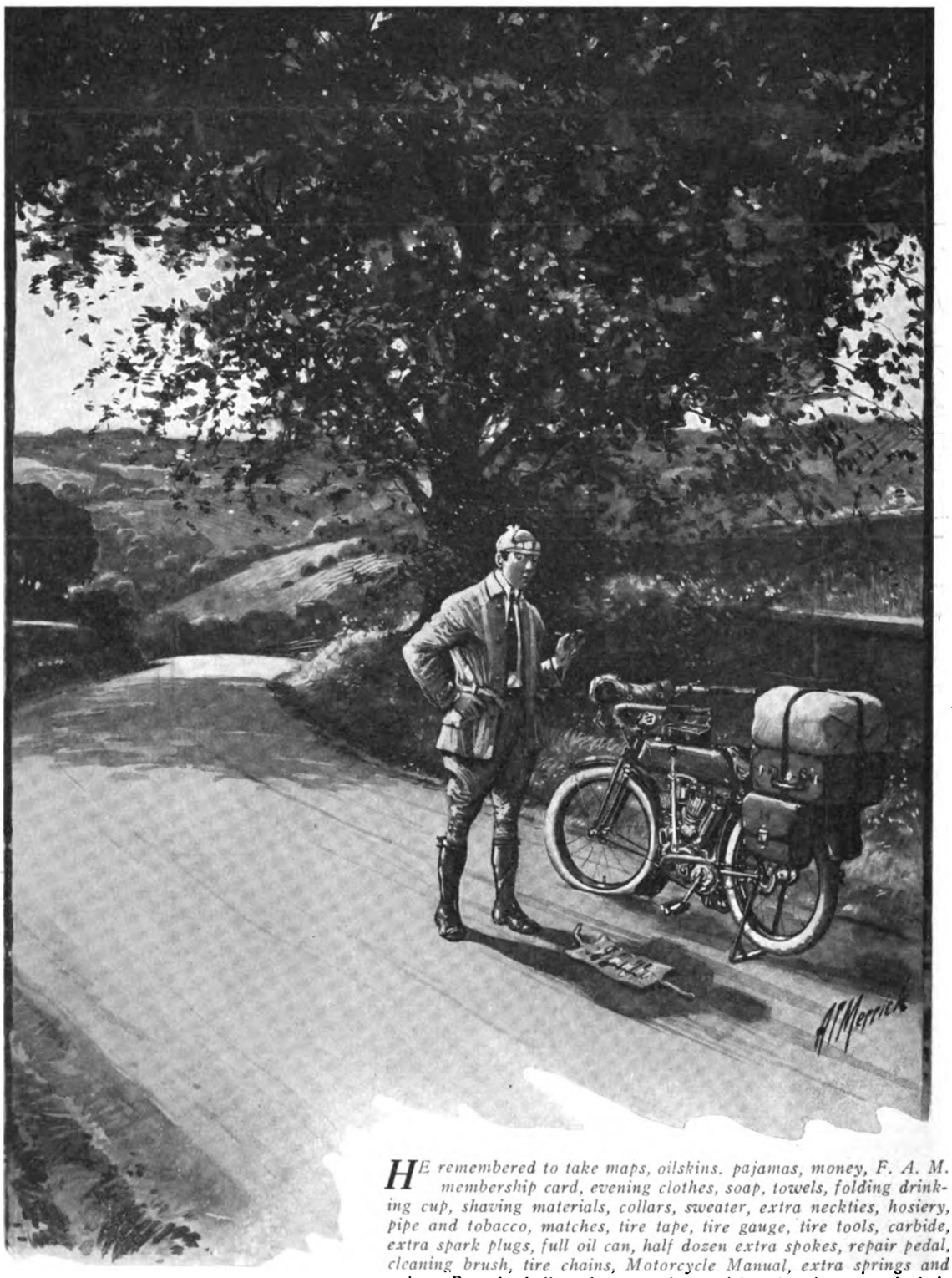

HE remembered to take maps, oilskins, pajamas, money, F. A. M. membership card, evening clothes, soap, towels, folding drinking cup, shaving materials, collars, sweater, extra neckties, hosiery, pipe and tobacco, matches, tire tape, tire gauge, tire tools, carbide, extra spark plugs, full oil can, half dozen extra spokes, repair pedal, cleaning brush, tire chains, Motorcycle Manual, extra springs and valves, French chalk and some other articles—but forgot to include ***rubber solution and patches.***

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Plenty of Variety On Coast-to-Denver Route

Volney Davis in Recent Article Recalls Road Conditions for Benefit of Motorcyclists Who Contemplate Riding to F. A. M. Convention City—Tells of Railroad Ballast and Fair to Poor Wagon Roads.

NO motorcyclist in the United States is as well qualified to discuss transcontinental touring as Volney E. Davis, of San Francisco, the coast-to-coast record-holder, and for that reason the following extracts from an article recently written by him relative to the trip from 'Frisco to Denver will prove unusually interesting. His suggestions hold special pertinence for the F. A. M. rider who plans to ride from California to the 1913 convention city and for the Middle-Western tourist who may wish to continue his journey on to the Pacific coast after participating in the Denver Program.

Davis states that the route to Denver via Sacramento, Reno, Ogden, Rawlins and Laramie is the most desirable at all times, except in winter. If the passes are free from snow he favors the use of the route via Auburn, Colfax and Truckee to Reno. The other route is via Folsom, Placerville, Strawberry, Glenbrook and Carson City to Reno. He followed the latter route in 1911.

From Reno the wagon road is followed to Hazen, Neovia and Wordsworth. Davis states that the tourist must travel between the railroad tracks from Hazen to the outskirts of Lovelock, then ride the wagon road through Lovelock and to a point seven miles beyond, where the rider must take to the railroad again to avoid heavy sand. The railroad is followed nearly to Winnemucca, where it is again abandoned to avoid trouble with the officials. The transcontinentalist calls attention to the fact that an attempt to ride the tracks in the immediate vicinity of any town will result in arrest.

MORE RAILROAD TRAILING.

From Winnemucca the wagon road is followed through Golconda and to a point eight miles beyond, where the railroad is again trailed to Battle Mountain. Here the tracks are left and the rider bears north to white house (ranch) via blue house (ranch) and then proceeds 35 miles to Carlin, Nev. On the latter stretch only one house will be passed; this stands about a mile to the left of the road and 12 miles from Carlin. Davis reports plenty of water and a fair road for this leg.

The wagon road is followed to Elko, Halleck and Duth, and then there is good going along the railroad track to Walls Cobre, Montello, Techoma and Umbria Junction. At this point there is a choice of routes. The wagon road is north of Great Salt Lake and runs along the old line of the Southern Pacific. It is a poor road with few towns or houses. No trains run on this line west of Kelton, Utah. The more desirable route is along the main line of the Southern Pacific to Lucin, New Foundland and Lakeside and across the trestle over Great Salt Lake. The lake is 40 miles across, but Davis reports that there are little stations every few miles and that meals and lodgings can be obtained at Promontory Point. The trip across the lake is not all trestle, fortunately. There is about six miles of rough ballast, then some good going, another stretch of rough travel and finally a section of road that is fairly good before Promontory Point is reached.

After leaving the Point the rider encounters seven miles more of heavy going, and then the lake is left behind. Fair railroad ballast will then be found to within about five miles of Ogden, and the remainder of the run into Ogden is made over the wagon road. From the latter point the shortest route is along the Union Pacific on a fair road to Echo, Utah. If a visit to Salt Lake City is desirable 42 miles of good road will be found. In leaving Salt Lake the rider finds a fair wagon road to Parley's canyon, 20 miles upgrade, with an average of 8 to 10 per cent. The road continues fair to Wauship, Coalville and Echo, where the main transcontinental route is struck again. The road is followed to Evanston, and at this point Davis advises inquiries relative to the best route to Granger.

THE RUN INTO THE MILE-HIGH CITY.

Davis found the route via Cumberland and Opal in good shape, but states that a shorter trip may be made along the Union Pacific if proposed improvements have been made in this line. From Granger, Wyo., the railroad tracks are followed to Rock Springs and Point of Rocks and the rider continues along the tracks to Wamsutter. Davis states that the roughest wagon road of the whole trip is between Point of Rocks and Wamsutter. From Wamsutter to Rawlins, Ft. Steele, Walcott, Medecine Bow, Rock River and Laramie there is a fair wagon road. From Laramie the shorter road is via Ft. Collins to Denver, but it is explained that the route to Cheyenne and thence to Denver is also good.

Advice Offered by Volney E. Davis, Transcontinental Record-Holder, for the Motorcyclist Who Plans a Cross-Country Tour.

AN extra supply of gasoline is not necessary, but a big oil tank is very valuable. Good oil is scarce, while any kind of gasoline will serve in an emergency. A small supply of water should be carried. A regular U. S. Army canteen is preferable to a water-bag.

LUGGAGE may be carried to advantage in a pair of good saddle-bags. They are capacious, easily packed and keep the weight of the luggage low on the machine.

THE simplest method of solving the underclothing problem is to discard the garments as they are soiled and purchase others. This holds down the size of the luggage kit.

USE a plug instead of a drain-cock in the bottom of the crankcase. Drain-cocks break off.

EXTREME care must be exercised in riding railroad tracks. The tourist should keep a sharp watch both to front and rear and approach curves with great caution. Don't apply for a permit to ride the tracks. It will not be forthcoming.

AFTER leaving California the rider will find gasoline ranging from 30 to 60 cents a gallon, and oil at about 25 cents per quart.

FOR the San Francisco to Denver trip referred to in the accompanying article the rider is advised to use an official road map covering the roads to Reno, a Southern Pacific railroad map to Ogden and a Union Pacific map to Cheyenne.

WINDOW DISPLAY CONTEST.

MOTORCYCLE dealers in all parts of the country will be interested in the announcement of the Emil Grossman Company, 250 West Fifty-fourth street, New York City, to the effect that the company has inaugurated a national window display contest. Every jobber, automobile or motorcycle dealer, or garage keeper is eligible to enter the contest. More than $300 will be given in cash prizes to the winners. Window display material will be given free to any dealer making application to the Grossman company. Suitable judges have been selected, consisting of editors of various trade journals, expert advertising men, and artists. The contestants will be called upon to submit pictures of their displays on or before midnight of July 4. Packages bearing a later date will not be considered.

PUBLICITY CAMPAIGN A SUCCESS

UNUSUAL success has attended the publicity campaign started by the Washington (D. C.) branch of the Haverford Cycle Co. During the last ten days the company has disposed of twelve Excelsior twins. Two of these machines were sold to Counts Erik Ferstram and Theodore Dickson, of Austria, who are making a tour of the world. They left Washington about two weeks ago en route for the Pacific coast on their new machines.

BUSH & McDOUGALL AGENCY

W. H. BUSH, JR., of Bush & McDougall, agents for Harley-Davidson and Henderson machines in Newark, N. J., reports a rush of sales. The company has disposed of 60 Harley-Davidsons, 10 Hendersons and 15 Thors. The Bush & McDougall Company has spacious headquarters at 47 William street, Newark. Directly in the rear of the large salesroom is a second good-sized room where the second-hand models are kept. A 100-foot workshop, which is in the rear of this, is equipped with lathes, drill-press, anvil, brazing outfit and testing blocks.

LISTER COMPANY TO ENTERTAIN

HARLEY-DAVIDSON riders of Cleveland, Ohio, will be the guests of the Lister Motorcycle Company at a chicken dinner to be given at Chargin Falls on June 15. This is an annual event. A ball game and races will be features of the afternoon's entertainment. Four hundred riders are expected to attend.

A NEW branch of the United States Tire Company has been opened in Worcester, Mass., with L. C. Havener in charge. A complete assortment of U. S. products will be stocked.

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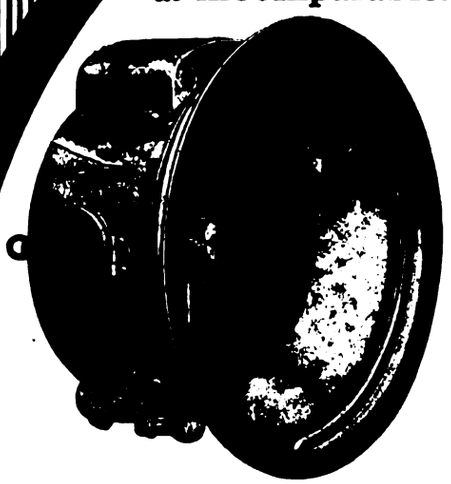
SOLAR

INCOMPARABLE

The Complete Solar Motor

It's folly for any one to compare his lamps with SOLARS. For SOLARS offer so much more for the money, they are so supreme in design, quality and service that their vast superiority is at once evident. For that reason SOLAR lamps have come to be recognized as incomparable.



"Dad" Headlight

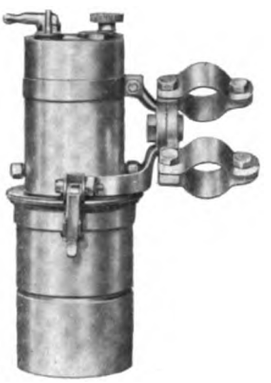
Same design as model 194 except larger, measuring 7 9/16 inches in front diameter and 5¼ inches in depth. Is as large in size as necessary and completely fulfills all demands made for a Motorcycle Headlight. The body and flare are made of one piece of heavy gauge metal, the front glass and aluminum reflector being held by a strong wire spring, eliminating a door, its hinge and catch and the possibility of their rattling. Fitted with 5-inch Solar short focus lens mirror and front aluminum reflector which produces the two necessary fields of light. Has 1½-inch ruby jewel on each side, the right side having hinge and catch for lighting ¾-foot tip and props for Solar-Morse Universal fork brackets. 195 Nickel or Black and Nickel, Each **$5.00**

Generator Headlight

This combined generator and headlight for motorcycles is a "Big Brother" of the famous Solar cycle lamp. Made entirely of heavy brass, full nickel plated, is 9½ inches high with removable silver plated metal reflector, has 3 11/16 inch double convex front lens and 1½-inch ruby jewels set at an angle, thus combining head and tail light features in a single lamp. Has props for Solar-Morse Universal fork bracket. The famous Solar gas generation with an added new needle valve gives perfect control of water feed. Carbide capacity 8 ounces, and burns 8 hours with 5/16-foot tip, for b.ackets.

4GH Nickel, with bracket, Each..... **$7.50**

With Valve to supply Gas Tail Lamp Fifty Cents Extra

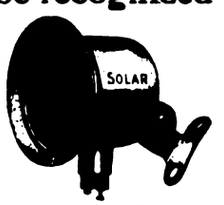


Motorcycle Generator

Is specially designed and constructed for motorcycle use, and fulfills the requirements Made from seamless drawn shells of heavy brass. Has greater carbide capacity (10 ounces) than any other generator. The famous Solar gas generation principle with an added needle valve gives perfect control of water feed. Screen in carbide cup to separate used carbide and simplify cleaning. Is 8½" high and 3¼" diameter. 91s is same except is ½" shorter and carbide pot screws on, as on cycle gas lamp. Made to fit Indian and Excelsior

91 without bracket, Each..... **$3.75**

91s without bracket, each $3.00.



Electric 102E

Gas 102G

Motorcycle Tail Lamps

Both these tail lamps are the same size, except the gas type has ventilating hood and pet cock. Are 3 inches long, 3 inches high, have 2½ inch rear ruby semaphore and have adjustable bracket to fasten on rear wheel mud guard. Heavily nickel plated. No. 102E is an Electric Tail Lamp with 1 c.p. 2 volt Ediswan type G6 Tungsten bulb in socket to which wiring is connected. Current to be supplied by battery. No. 102G is a Gas Tail Lamp fitted with 1/16 foot single jet top, gas to be supplied from generator or tank.

102E Nickel, with bracket, Each..... **$2.00**

102G Nickel, with bracket, each $1.50.

Riders, Write Today for New Catalog

Our new catalog pictures and describes the most complete motorcycle lighting system on the Market. You can see SOLARS at your dealer's today. If he is not yet supplied, he will be very shortly, because he will feel the big demand for SOLARS.

Just drop a line to us now for our book

The Badger Brass Mfg. Company,

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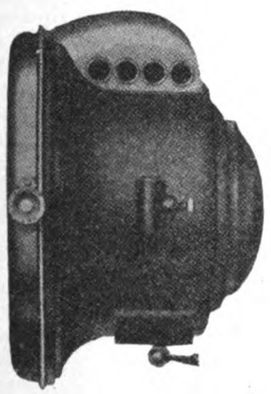
LAMPS SHOW THE WAY

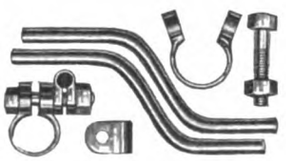
Cycle Lighting System

For your guidance we present the complete line of SOLAR Motorcycle Lamps and accessories. The prices mentioned are **standard.** SOLAR prices are not "padded," subject to big discounts. You pay more for SOLAR lamps but the small difference is greatly returned in service and quality. And that's what you want more than a socalled discount. You have too much at stake to risk commonplace lamps. Look up the facts and you'll surely choose SOLAR Lamps.



"Grandad" Headlight

Our largest and positively the most powerful Motorcycle Headlight on the market. Made of heavy drawn brass. Front diameter 9½ inches, 6¼ inches in depth. Fitted with 6-inch Solar special short focus lead glass lens mirror reflector which with the front aluminum reflector produces the two necessary fields of light. Has adjustable ½-foot tip, removable door glass, lens mirror and front reflector and props for vertical Solar-Morse Universal brackets. To be supplied with gas from tank. 1236, Nickel or Black and Nickel.....Each **$7.00**



Universal Brackets

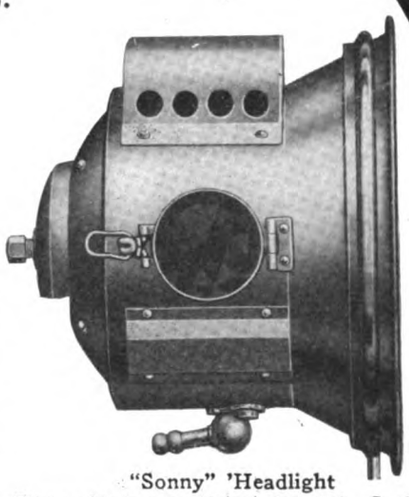
Our Solar-Morse Universal Lamp Bracket is made from heavy steel stampings and is designed to be used with our "Grandad," "Dad" and "Sonny" headlights and is adjustable to any make of motorcycle.

These brackets are supplied in pairs packed in a pasteboard box which also contains 4 fibre bushings 1/16-inch thick for fitting the clamps upon bars ranging from ¾ to 1 1/16 inches in diameter.

When used with the "Dad" and "Sonny" headlights the bracket is clamped to the handle bars, holding the lamp directly in front of the head, but can be fastened to double front forks where size of tubing permits.

With the heavier and larger "Grandad" headlight the bracket it designed to carry the lamp directly above the bars with the bracket prongs perpendicular.

Solar-Morse Brackets.....Each **$1.00**



"Sonny" 'Headlight

This model is a new design for 1913. Is 6⅝ inches in front diameter and 5¼ inches in depth. Made of heavy gauge metal, the body and flare being of one piece construction. The right hand red jewel is hinged to permit lighting and the front door is eliminated. Has 4-inch Solar lens mirror reflector and front aluminum reflector, which produces the two necessary fields of light. Model 194 for flat brackets which fits in a casting concealed inside the back of body. No. 194P with props on either side at bottom of body for Solar-Morse Universal fork brackets. 194 Nickel or Black and Nickel Each..... **$4.00**

194P Nickel or Black and Nickel, each **$4.00.**

Dealers, Order Today from Your Jobber

Your jobber will supply you with SOLAR Lamps and accessories. The prices quoted above are the full retail selling prices. Our policy of one price to all is gaining favor with dealers everywhere. The "Dad" and "Sonny" Lamps are put up in pasteboard boxes enabling jobbers and dealers to reship by Parcel Post without repacking. This is a decided convenience. Write direct to us today or to your jobber.

Kenosha, Wis. or New York City

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Trailing Pictures and Trout by Motorcycle

How a Wanderlusty Roadster and a Photographer with an Artistic Temperament Found Opportunities to Use Both Camera and Rod Effectively on a Brief Outing in Picturesque Minnesota.

By Frederick Bootz

ONE fairly mild day in April just past I began to experience familiar symptoms of wanderlust, and strolling around to the photograph studio of my friend Paul I draped my form over a bench and made the conventional inquiries anent his liver. That done I confided to him that I was being temporarily irked by civilization; that I hankered for a short trip out into the open. Paul is a photographer with an artistic temperament—not a mere taker of pictures. He likes the open as well as I do, and when I suggested a trip he simply looked up from his work and asked me if I knew where there were any trout. I told him about a little brook which the angler can jump across at almost any point; where the trout are not large, but still large enough to permit a true sportsman to go after them. This brook runs through a pleasant valley, and I knew it would make an ideal destination for us.

Then we discussed methods of transportation. I have a motorcycle, but Paul is not an owner just at present. He can ride, however, so I arranged to let him take my machine while I borrowed one from a friend. Said friend's name is O'Rielly—and he lives up to it. In other words, he is good natured. He agreed to lend me his chugger so that Paul could ride mine. O'Rielly's machine boasts a luggage-carrier, so we were able to take along some lunch and utensils for frying the trout—if we caught any.

The sky was threatening the day before we were scheduled to start on the outing, but the morning of the big day was bright and clear. I piled pans and "grub" into a basket, strapped the latter to the luggage-carrier and we were off! We were just getting outside the town when a party of school children appeared in the road ahead of us. We maneuvered around them as carefully as possible, but one little girl managed to get in front of my mount. I did some mighty quick thinking and then turned my machine down into a ditch. I cleared the youngster, but the narrow margin by which she escaped gave me a cold chill. I gave that girl a curtain lecture that she should remember for many a day, but she simply laughed.

We found the roads fair and the outward trip was a pleasant one. Somewhere along the line there must have been a few bumps, however, for I discovered later that I had lost the supply of butter and bread out of the basket. Luckily nothing else was missing, so we were not greatly annoyed. After all, pictures and trout were what we were after, and we found the films safe in the bottom of the basket. The brook was only eleven miles distant and we made the run in leisurely fashion in three-quarters of an hour. On arriving at the stream we cut willow poles, got our lines in trim and went after the trout. We knew they were there for we could see them, but they were not in biting humor apparently, and the best we landed for some time was a little two-incher which we immediately put back.

Just as we had about decided that luck was against us three fair-sized trout got into an argument over our hooks and in a minute or two we had a pair of them. A short time later I landed two others and I then began to pitch camp while Paul continued to fish. He caught several more trout and joined me in time to help build a fire. Our salt, sugar and coffee had been transformed into a rather remarkable mixture in the trip from home, but I managed to recover enough coffee to start the pot at work. Then I placed potatoes in the ashes of the fire and took up the frying of the trout. During these interesting processes I modestly allowed Paul to snapshoot me several times.

The meal seemed a long time cooking, but finally it was ready and we prepared to disrose of it. The coffee had settled, the potatoes were baked and the trout were sizzling. The psychological moment had arrived. So had our appetites. Accordingly, the repast was soon put out of sight. Paul, peeling a potato, grumbled because the little salt that I had recovered had all been used on the fish, but he managed to eat his share minus the salt. All in all, that meal was a success. It might not have satisfied an epicure, but it tasted good to us. After eating we rested a bit and then started on the homeward trip fully satisfied with brief outing.

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GIVING the CARBURETOR A SQUARE DEAL

by STANLEY ROSEBERY

THERE were some first-class days for side-carring last month and naturally I took advantage of as many as I could to go through my favorite "scenic switchback section"—Westchester County, New York. Coming to the crest of one of the snaky grades which abound throughout the district, I lifted the valves and declutched preparatory to coasting it, when a very extraordinary noise behind made me pull up. It sounded like a racing single motor being overdriven, followed by a very powerful twin, but the doleful sound as of flower-pots bumping together convinced me that it was only a twin ridden by a novice. In a short time the bus came along and passed us, the rider taking the hill with the motor running badly and no more noticing us than if we were a rock beside the road.

My passenger on this trip knew nothing about motorcycling, and had the tact to refrain therefore from thrusting in his oar when we caught up with the rider of the noisy twin, which we did after a high-speed coast to the foot of the next hill. The rider of the twin was alongside the road, pedalling vigorously with his machine on the stand, but nothing in the line of explosions powerful enough to take him up the hill could he get. After he had three trials at the grade, I stepped in and volunteered to do what I could to help him out, for which he seemed grateful.

TROUBLE IN THE CARBURETER.

His motor was hardly a season old, but it ran as if of the vintage of 1908, the carbureter adjustment being way off. "I left home the day before yesterday," he said, "after having the agent in town fix up my mount for me. Just before getting into Philadelphia it rained and the motor started to act as it does now, but I managed to limp into a place on Broad street and left it overnight to be fixed up. The next morning it ran well for a while, but at Lakewood it went bad again, and I paid another bill for fixing it. In Freeport it balked entirely, and it was the same story into New York and up to this point—bang, bang, bang! for ten miles and then the motor goes lame and won't climb anything. Even the singles pass me on the road, for if I open up at all the motor stalls."

His speedometer showed over 140 miles on the trip dials, and he must have had a doleful time of it.

"Camp down here," I said, "and let me see if I can't fix her up a little better. That is, if you aren't in a hurry to get on. If you are, I'll tow you up and stay by you into Port Chester."

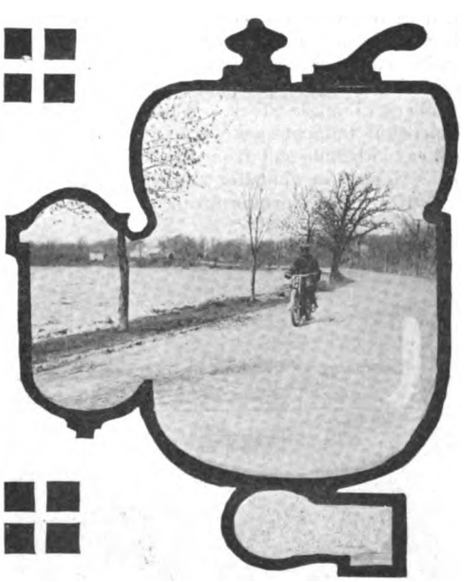
The stranger was in no hurry, so wrenches came out of the toolbag and off came the carbureter, and I took it apart. Just as I had suspected, it was a combination of jet and float-chamber trouble, and could have been fixed in ten minutes at any time.

"There's a layer of slime in the float-bowl and lots of it is road-dust," I told the owner. "If you take another trip like this, have the whole carbureter cleaned before leaving home, and look at the gauze on the primary air hood every day or so to see that it isn't getting stopped up. The dust that comes in through the auxiliary air valve goes to the cylinders and helps to make soot with the burnt oil, so there's no need to clean that part of your mixer. No wire gauze will keep out dust, unless it keeps out the air too, when it would be no good at all."

TOO MUCH TINKERING.

"When I started out after the rain," explained the tourist, "the mixture went wrong and I had the deuce of a time setting the needle-valve again. It was all wrong when the sun came out yesterday, beyond Lakewood, and I had to set the knob again. I got tired after a while and let her run as she pleased, but didn't get completely stuck until just now. These carbureters are a nuisance, for you have to twiddle them every time the sun goes behind a cloud."

"Your chief trouble," I informed him, "is from too much twiddling, chiefly on the part



of the youngsters who are sometimes given such jobs as carbureter adjusting in shops. They simply make some sort of setting of the needle-valve and put more tension on the auxiliary air valve spring—just enough to make the motor run well on the stand. I got almost an ounce of dirt out of the passage to the jet, and some of it must have been lining the opening to cause your motor to run as it did. How often do you think a change of adjustment is needed on a carbureter?"

"Judging from the way my machine has acted since I left home," was the reply, "I should say every time the wind changes, or the sun goes behind a cloud."

"Well, that might be the case with some carbureters," I said, "but not with this one. There have been too many adjustments made already. The level of the gasoline in the float-chamber is too high, and there are marks where some one has used a pair of pliers to bend the lever. Leave the float alone. When you get the outfit from the factory or dealer, everything should be in good trim and the only change necessary should be in the adjustment of the air-spring and jet-valve. Unless the weather changes considerably from hot to cold, the setting when starting out should do for all day, and possibly for the night too. After having set the jet-valve for low speeds, do all adjusting with the air-valve spring—the knob that projects in the rear of the air inlet."

GETTING AN ECONOMICAL MIXTURE.

"I know, that's what the instruction book says," admitted the tourist, "but blessed if I can tell when she's got the best mixture, except when she climbs hills well."

"There's where the muffler-cut-out comes in," I warned him. "Open it and make your low-speed setting with the jet needle-valve knob, turning it until the tone of the exhaust is sharp and ringing. The throttle must be off while you're doing this. After you get this adjustment made, use the knob on the auxiliary air valve for any changes. It's running on the most air and the least gas possible that gives the best all-around riding. And let me tell you another thing. At night, lots of motors run best, there's lots of moisture in the air and the heat of the sun is gone. This means that less fuel will give the same results, and you can generally cut down on both the gas and air at this time of the year after dark.

"That's the dope; let things alone until it is necessary to make adjustments and then make them yourself. Don't depend upon other people for riding matters; its a waste of time and money. Every rider ought to know his machine, and each mount has some little kinks in it that a stranger knows nothing about, and generally only makes more apparent when he tinkers with it. You've got a pretty dirty motor, and when you stop off for some time, have the soot cleaned out of it. Now try her again," I suggested.

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The operation of cleaning and adjusting proved successful after a few more turns of the air-valve knob, and the rider negotiated the hill and was soon out of sight. My passenger, who had finished two pipes of tobacco during the operation, asked: "Do you meet many riders like the chap who has just gone off?"

"Yes, the roads are crowded with them," I replied. "They either are always fussing with the adjustments I spoke about, or they drive the machine with much too rich a mixture, using up more gasoline than a motor truck or a launch. An observant person would imagine that half the rider's time was spent in turning something or other, and that the racket of muffler explosions was merely a part of every trip, and inseparable from it. They only half learn how to set the carbureter, and when a change is needed, the result they obtain is usually bad. This chap belongs to the Amalgamated Order of Tinkerers, and I wager he was fiddling with his carbureter ever since he left faithful Fido on the steps of his home in the Blue Ridge mountains. The repairmen took his measure for an easy mark when he asked to have his carbureter adjusted, and probably only made matters worse for him.

INCORRECT MIXTURE AND DIRT.

"Its just as I have always said: the chief troubles that come to a rider are due to his ignorance of the carbureter. Lack of system in getting a good mixture at first results in constant turning of knobs and opening of shutters and valves, hunting for the right proportion of gas and air. While there are a number of things that can happen, due to some fault of the carbureter, the chief and most easily remedied ones in touring are wrong mixture and dirt. Our friend here had both, plus too high a fuel level, which made his mixture too rich. Ninety out of a hundred cases of over-rich mixture are due to too great a jet opening, and the odd one to the wrong fuel level. But if he had given the bus over to a good repairman, the high level would have been found out at once." Having relieved my mind to this extent we both mounted the trusty sidecar rig again and rolled away toward the Connecticut border.

Heitger Carbureter Co., 1129 Beecher street, Indianapolis, Ind. (Heitger.)

Breeze Carbureter Co., 250 South street, Newark, N. J. ("N. A." Breeze carbureter.)

THE CONVENTION DATES

A LETTER from President Patterson is to the effect that the F. A. M. directors by their recent mail vote have approved the plan of changing the opening date for the Denver convention, and that the big program will be staged during the week of July 21-26. It is quite likely that these dates will be adhered to, although it has been intimated since this vote was taken that another change may be found necessary in order to have the convention dates work in more effectively with other plans of trade representatives.

Unique Twombly Van and New Cyclecar Type

Commercial Product Offered by New York Company Has Three-Cylinder, Two-Stroke Motor and Many Other Features of Interest, While Cyclecar Carries Twin Seven Power-Plant and Lists at $450

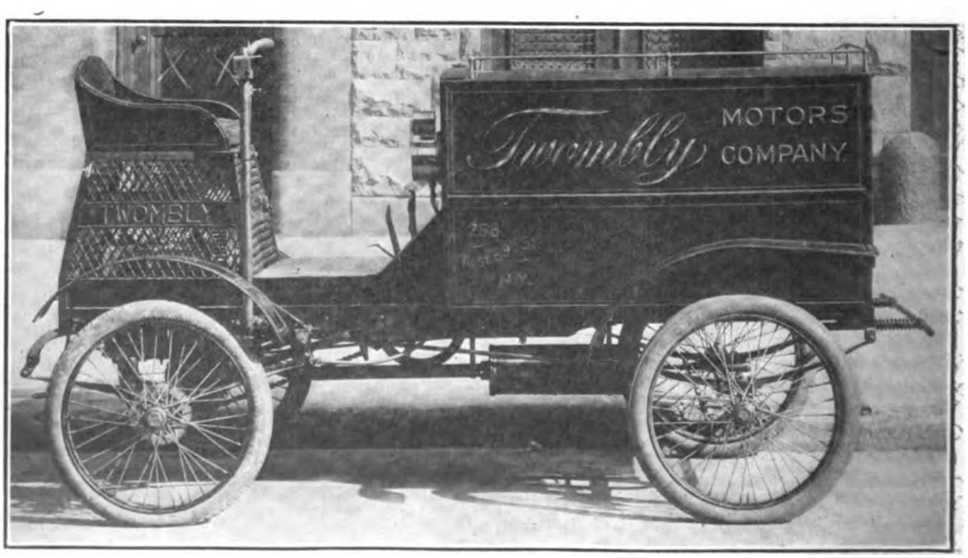
THE Twombly Motors Company, of 258 West Sixty-ninth street, New York, is putting on the market a parcel delivery van of 400 pounds load capacity which embodies a number of interesting features. The construction of this vehicle has been the result of several years' study of the light delivery problem both here and abroad.

The Twombly van is fitted with a three-cylinder, two-stroke motor, the bore of which is 3 inches and the stroke 3¼ inches, giving close to 16 horsepower at normal speed. Ignition is by Bosch magneto, and a special carbureter is fitted. Lubrication is by splash. The cooling is by an unique method; the cylinders are fitted with ribs, but all three are enclosed within a "cooling jacket" which is enlarged at its rear end and open only around the top of each cylinder. The flywheel of the motor is of the Sturtevant blower type, and in revolving draws air through the top openings and through the jacket, carrying off the heated air from each cylinder by induced draft. Spark plugs are located in the center of each cylinder head and in addition there is provided a priming cock for each cylinder.

The change gear is of the frictional type, consisting of a bronze disc driven by a shaft directly from and in line with the flywheel. A simple universal coupling is used; this consists of two curved springs whose ends bear on pins projecting from the face of the flywheel and whose centers are attached to the disc shaft. The shaft is capable of being moved fore and aft to effect engagement of the disc with the friction wheel. The latter is fitted with a strong paper rim and is keyed to a countershaft fitted with self-aligning joints so that contact will always be true no matter what the frame distortion. From the countershaft, the final drive is by chain to a live rear axle and differential, as in car practice. Both motor and change gear device are mounted on an angle-iron sub-frame which is attached to main frame at the front and rear.

The motor is located under the driver's seat at the rear, the seat frame being of lattice aluminum paneling to ensure plenty of air to the cooling jacket. Steering is by hand-lever with linkage direct to Ackermann pivots on the front wheels. The four forward and one reverse positions of the friction wheel on the disc are controlled by a small lever mounted on a segment, and the spark and gas are controlled by small levers below the one used for steering. Of the three pedals on the foot-boards, the left controls the movement of the disc and acts as a clutch, the middle sets the brake on the rear axle, while the smaller right-hand one is the accelerator. The main frame is of channel iron with cross-members of angle stock. Wheels are of the suspension tangent-spoke type with 3/16-inch spokes, with hubs cut from the solid steel, and are 26 inches in diameter and fitted with 2½-inch tires. The springs are semi-elliptic with the horns at the rear ends. The wheelbase is 66 inches and the tread 42. The body is of the van type and the whole vehicle weighs in the neighborhood of 500 pounds when empty. It is priced at $450.

In addition to the parcel delivery van, the company is getting out a light machine on improved cyclecar lines. The general method of drive resembles that of the van, except that the disc shaft passes through a tube filled with grease, and the disc and wheel are at the rear of the machine, with the motor in front. The motor will be a 12 h., air-cooled twin with outside flywheel, and the friction wheel will be geared to the rear axle instead of driving by chain as in the van. Behind the motor is a scuttle dash incorporating the gasoline and oil tanks, and on the footboard are located the "clutch" brake pedals. The outfit is designed to sell at the same price as the van, $450. It is a competent roadster.



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The FINE ART of LUBRICATING

by the COURIER

IT isn't often that I get poor gasoline, meaning watered stuff, but I am quite used to mixtures of kerosene and naphtha which masquerade as "gas." One time recently I was stalled with water in the float chamber and had to clean things out. Just before the final setting up of the floatchamber holding nut was complete, a rider went by on a single, leaving a trail of oil along the highway. After mounting and going along a few miles I found him by the roadside.

As I rode up I could see that he had fractured the oil lead to the crankcase, and investigation showed what was pretty nearly a "freeze-up," with no oil left in the tank. We applied the usual remedies, and after generous use of oil from my tank we got the motor free again. I always carry a small soldering iron and solder, and so made a "highway forge" and repaired the break. Then I had to free the pump line from air-locks and start the oil flowing again.

"I'm going up to Boston for a day or two," explained the rider, "and didn't have much oil left after I passed out of the last agency. Using the 'Zedel' motor, I have to get a certain oil or there is trouble. They didn't have it down at Blank's, so I thought I could make the next 60 miles and then get a fresh supply at my chum's. He rides the same make as I do."

"If you're tied down to that particular oil, you must be pretty limited as to tours unless you carry a tin of oil with you all the time," I suggested. "You can get another brand suitable for your motor at almost any garage which is first class. This is the brand I'm using now in my motor." I gave him the name of it. "It's a good thing for you to know when you do any touring," I continued, "as all garages do not carry certain brands of oil, and if you don't know of any emergency brand, you have to take the garageman's word for it. If he's honest, well enough; if not, you stand to ruin your motor. Why, I know of six different kinds of oil that I can use in case I can't get the one that I use regularly."

"They told me that only the one oil could be used with safety in this motor," insisted the deluded rider, "and I have been buying that brand right along. While I stayed around home there never was any lack of it, but coming up here I would have had to reach my chum's to get a new supply. By the way, tell me how you made that dirt forge to use the soldering outfit on my oil pipe."

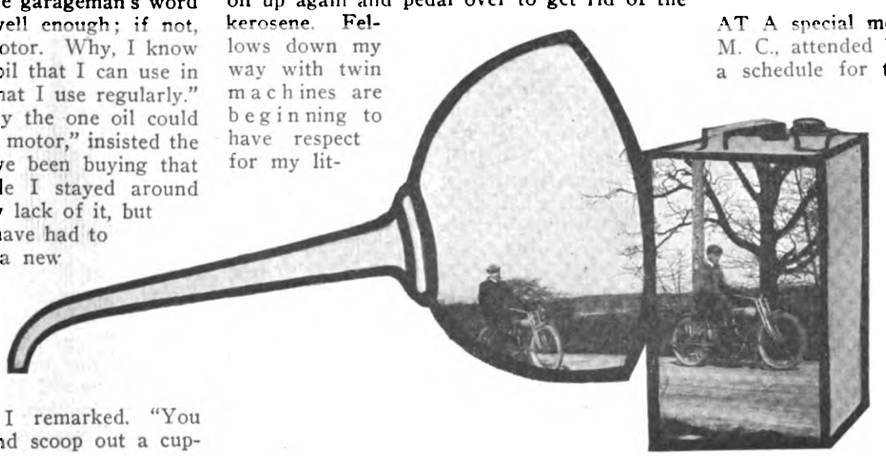
"The highway forge is one of my old pets," I remarked. "You make a mound of dirt and scoop out a cup-shaped hole in the top. Soak this with gasoline and light it. If the mound is large enough, it will give good heat for a soldering iron, and you can repair broken oil or fuel pipes on the road. After using it stamp it out and spread the dirt over the road, to prevent it setting fire to something. So much for that. You've got a hand pump for oiling, I see. How often does the motor need a charge now?"

"About once every 12 miles," was the reply, "except on hills, of course. Then I give her half a pumpful extra. The motor always smokes after climbing, but not badly, and I know just when to give the next pumpful after climbing the hill. Once or twice I waited somewhat too long, and the motor started to squeal, but over-oiling a little at once fixed that up."

"Touring in this part of the country will give you some new practice with the hand-pump," I suggested. "You're likely to strike hills one after the other, or just around a turn, where it's all you can do to get up. Follow out the old road-racer method of using the pump: half a charge every six miles, with the other half in the pump ready to use.

"With the mechanical-pump, or even with the sight-fed motor, the feed of oil shouldn't be changed for each hill unless a quick and accurate return to the regular rate of feed can be made as soon as the hill is passed. The mechanical-pump generally won't allow of this, so the rider can use the hand-pump on hills, gauging the proper part of the pump charge needed in addition to the regular feed of oil.

"There's one thing that has kept my machine in good condition, made it take most hills at a good clip and run pretty fast all the time," said the stranger, "and that's cleaning the motor out every 300 miles; just a flush-out with kerosene, tank, pipes and crankcase. Then I oil up again and pedal over to get rid of the kerosene. Fellows down my way with twin machines are beginning to have respect for my little 'one lunger,' as it runs well. The trick is in keeping it fresh and clean. I make an overhaul every 1,200 miles, too, but I've only made one so far and the next is nearly due."



"If every rider followed your example," I said, "there would be less growling about how badly the motors run. The old excuse of 'carbureter not in order' might be proved wrong, as stale oil naturally cuts down the power of a motor. It is an important matter, this cleanliness, at any time, and particularly when you are going to cover long distances. With a 4 or 5 horse machine you have to be careful to get all the power possible on hills, or it's a case of pedal or get off and push; a dirty motor can't give its full power."

"I guess that's the reason some riders buy twins," said the stranger. "In their estimation, a slight loss of power in a 7 or 8 h. machine will not affect the climbing of hills. There's nothing I would like better than a 4 h. twin instead of this single, but short of importing one, there's no way of obtaining one in this country."

Vaccum Oil Co., Rochester, N. Y. (Mobiloil.)

A. W. Harris Oil Co., 326 So. Water street, Providence, R. I., and 133 No. Wabash avenue, Chicago, Ill. (Harris oil.)

Harris Oil Co., 620 Mulberry street, Muncie, Ind. (Harris auto oil.)

Marshall Oil Co., Marshalltown, Iowa.

PLAN BI-WEEKLY RUNS.

AT A special meeting of the Reading (Pa.) M. C., attended by more than fifty members, a schedule for the first half of the season was mapped out. On May 4 the club held a run to Philadelphia, and on May 18 the riders will go to Earlville. Other runs planned by the club are as follows: June 1 to Easton; June 15 to Lancaster; June 29 to Pottsville, and July 26 and 27 to Atlantic City.

FRANK W. GLUGIA, of Joliet, Ill., who has ridden a motorcycle since 1910, states that he has spent only $10 on the machine in addition to the original cost.

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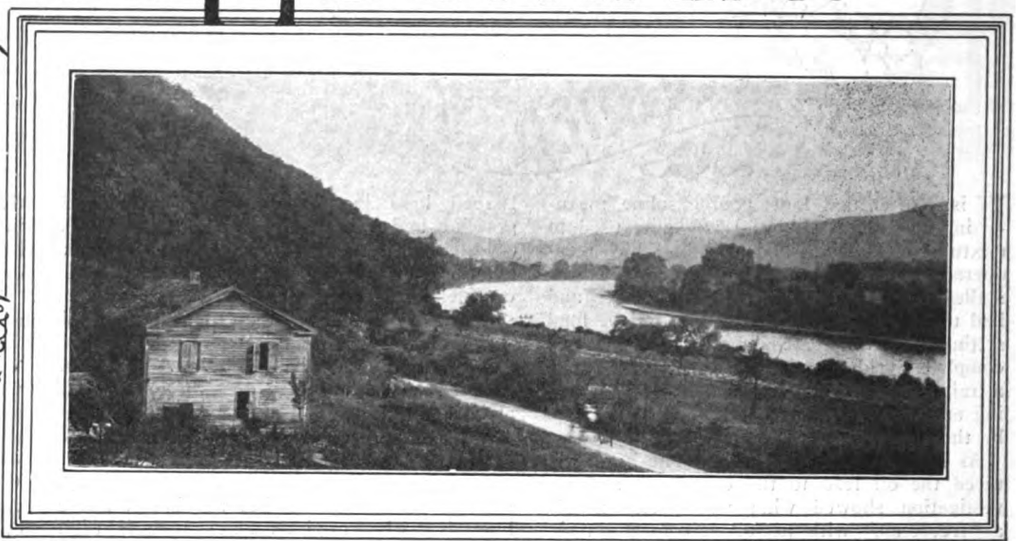
ATTRACTIVE ROUTES to the WHITE MOUNTAINS

By ROBERT BRUCE



SNAPSHOT taken ALONG the upper CONNECTICUT RIVER En route to the WHITE MTS.

A GLANCE at any comprehensive road map of the New England States will show, far up in the hill country of New Hampshire, a network of roads extending for long distances in nearly every direction, but brought to a common focus in that relatively small but important district labeled the "White Mountains." This unique convergence is due largely to the fact that here the great trunk lines or road travel up the Connecticut and Merrimac valleys meet and merge with the through routes that come over from the Lake George and Lake Champlain country across the Green Mountains of Vermont; and here also the connecting roads from the Canadian capitals, Montreal and Quebec, join. From the opposite side come the other trunk lines along the Massachusetts-New Hampshire-Maine Coast, or up through the Lake Winnipesaukee district; and also from the provinces of New Brunswick and Nova Scotia.

All these routes thread their own individual parts of New England or Canada; but sooner or later they or their connecting links are influenced by the stronger magnet of the White Mountains, and are drawn inevitably into the web of its far-reaching highways. The principal reason for this is that the valley of the Saco River and Crawford Notch on the East, with the valley of the Ammoonosuc and Franconia Notch on the west, are the strategic inlets and outlets for what is in reality a great clearing house of travel for most of upper New England. There are no good east-and-west routes for many miles above or below; and right here also Nature has been most prodigal with mountains, valleys, lakes and streams, the combination of which—plus good roads—has given the section its commanding popularity.

As a matter of fact, the New England states have been from the first the most important and best patronized touring ground in the United States—due to their relatively high percentage of improved highways, their proximity to and easy access from the large centers of population along the Atlantic Seaboard, the large number, variety and interest of their main-traveled routes, ample and superior accommodations, and uniformly liberal laws, granting to the visitor complete exemption from local registration and licenses. This favorable combination of circumstances has naturally attracted the attention of road-users all over the country, and is bringing into those six states a vast and rapidly increasing annual revenue.

CAPITALIZING GOOD ROADS.

Connecticut, Rhode Island and Massachusetts have literally capitalized their good roads, fine hotels and their many points of historic interest; and are receiving good dividends from them. A part of this revenue is being put into road improvements for the benefit of those who will come later; and thus the proverbial thrift of the section is coupled with foresight of the right kind.

Usually, there are more inquiries about routes to and from the White Mountains than about any other three localities combined, a considerable proportion of them coming from motorcyclists residing in the central or middle southern states, who may be planning trips to and from upper New England for the first time. Various other inquiries come from motorcyclists who have already made one or two trips to the White Mountains, but who wish to go or return some new way. As a glance at any good road map of New England will show, there is such a wide choice of routes to and from northern New Hampshire that one may schedule a half-dozen trips there and back without covering very much ground more than once. This is due principally to an unique geographical location, about midway between Lake Champlain and the Maine Coast, and about equally distant from the Lake Winnipesaukee district on the South and the Canadian line on the North. In fact, the principal White Mountain resorts are about a good day's motorcycling from a dozen strategic route centers; this has made them natural overnight stops—frequently lengthened into days or weeks. It has also helped to encourage the building of several of the largest, best appointed and best managed summer hotels in the world—as well as a large number of more modest hostelries. True, the famous scenery and romantic surroundings of the entire region have had a great deal to do with it, but automobile and motorcycle patronage demands not only good roads, but suitable accommodations.

Formerly it was taken for granted that only millionaires traveled this way, so that prices of everything met by them on their tours underwent a material inflation—and the end of that is not yet; but the man of moderate means, driving a medium-priced car, or riding a motorcycle, has come to be a factor to reckon with. He is beginning to show up in large numbers all along the line and is receiving respectful attention, even by the largest resort hotels; most of all, he is finding good accommodations at about city prices in the clean, well-kept, comfortable inns that dot most of New England, and by this patronage is helping to make a considerable number of them better than they would otherwise be. No motorcycle tourist need stay away from the White Mountains because of the high expense (as compared with other summer resorts), if he is willing to give a little more than ordinary care to selecting his stopping places.

ROUTES TO THE WHITE MOUNTAINS.

1.—From New York and the Metropolitan District generally: There is a wide choice of ways to start from New York toward the White Mountains, due somewhat to the fact that all the north-and-south lines through Connecticut and Massachusetts inevitably lead in that direction. The same is true of the Hudson River routes, with their various con-

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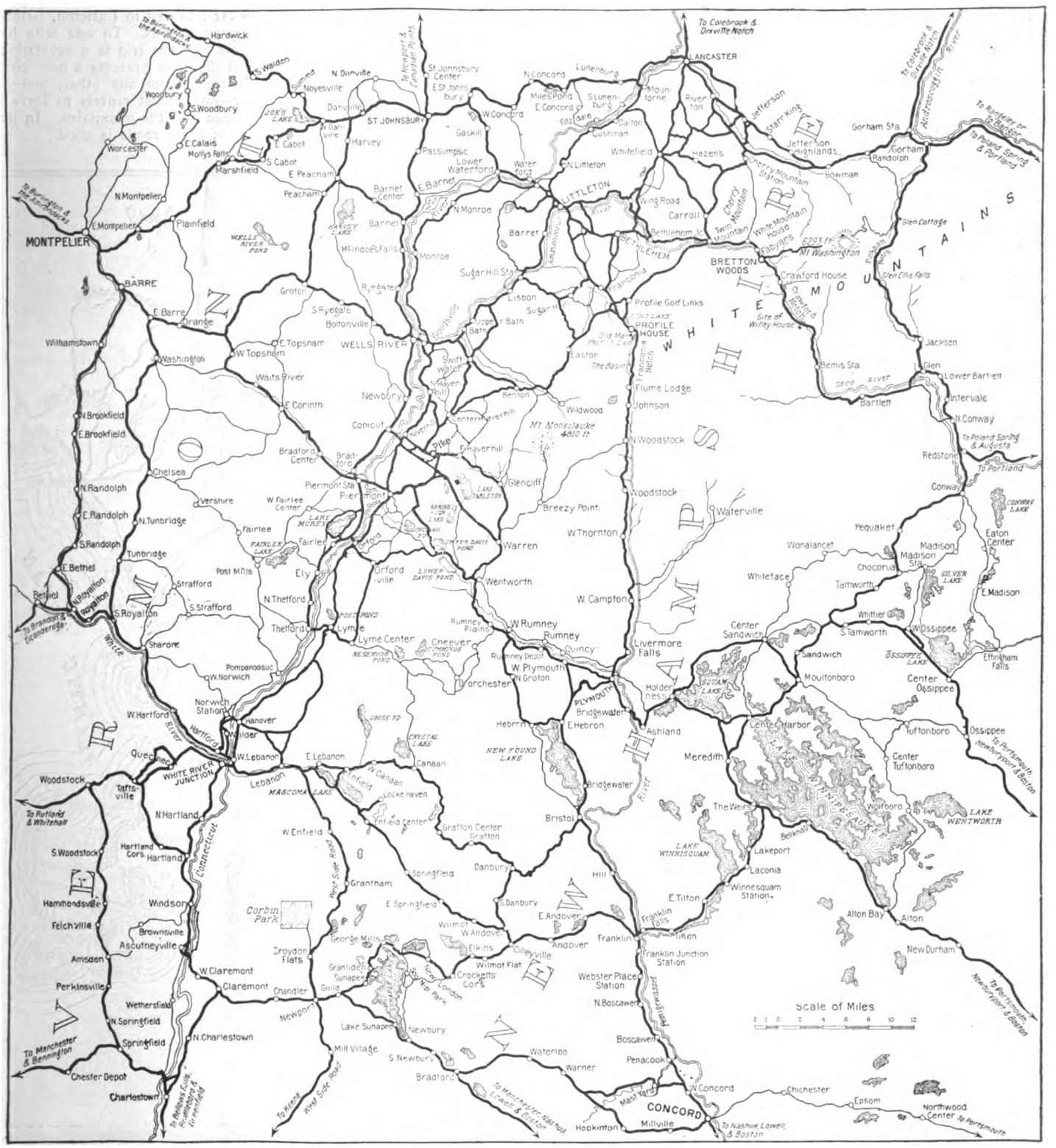
nections into southern Vermont, or on either side of the Lake George-Lake Champlain country. Motorcyclists who prefer the hill country, with glimpses of many fine valleys, will find their needs met by one or a dozen schedules, of which the "Ideal Tour" is typical. This route, while primarily an advertisement of several interested hotels along the way, meets the needs of so many that it has come to be almost an established institution despite the rather heavy expense, as compared with the hotels along less advertised routes

This tour leaves New York by the "Shore Line" as far as Stratford, Conn., turning north at that point to Waterbury, the principal route center of the Naugatuck Valley, from whence it is continued to Pittsfield, the heart of the Berkshires, through Winsted and Norfolk, Conn., Great Barrington, Stockbridge and Lenox, Mass. The next stage—to Manchester, Vt.—is an easy and picturesque run, followed by the hardest climb on the entire route, up Peru Mountain; this is really a long and difficult ascent, and its reputation leads many to avoid the route altogether, though hundreds cross safely every summer.

After going over Peru Mountain, one descends to and crosses the Connecticut River Valley to Claremont, N. H., from which Lake Sunapee is touched on the way to the Pemigewasset Valley, thence up through Plymouth and past the Profile House to Bethlehem and Bretton Woods. The return of the "Ideal



Detailed reference map of the White Mountains, N. H., an invaluable guide for the tourist.

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Tour" is scheduled via Poland Spring, Portland, Portsmouth, Boston, Worcester, Springfield and Hartford, cutting across the upbound trip at Waterbury and returning to New York by the State road through Westchester County and the lower east side of the Hudson River.

Many prefer to start north along the Hudson, turning eastward at Poughkeepsie or Hudson to Pittsfield, either joining the "Ideal Tour" at that city, or crossing to the Connecticut River at Greenfield. This is particularly the case with tourists from New Jersey, eastern Pennsylvania and points beyond, who do not care to go through New York City; but who can go up from Newark to Nyack, crossing the Hudson to Tarrytown and connecting there with the New York-Albany route. Roads from both Poughkeepsie and Hudson to Pittsfield are mostly good, and they are heavily traveled throughout the season.

TIPS FOR LONG ISLANDERS.

Residents of Long Island or summer visitors at its many resorts have the choice of going through New York, or of taking boat from Glen Cove to New Rochelle, Seacliff to Rye, Port Jefferson to Bridgeport or Greenport to New London, connecting with the "Shore Line" for all the main routes through Connecticut and Massachusetts. While there is apt to be some inconvenience in planning a trip across Long Island Sound this way, it is usually worth while, especially as it saves distance, and the ride through the heavy traffic of Manhattan.

Very many trips from New York to the White Mountains are made via Boston, particularly by tourists wishing to visit Narragansett Pier, Newport and Providence en route. This gives many fine views of the Rhode Island Coast, also of the Massachusetts Coast between Boston and Newburyport, and (especially) the unsurpassed New Hampshire-Maine Coast. At Portsmouth one may strike almost directly north through Dover, Rochester and Ossipee to Intervale, Crawford Notch and the White Mountains, or continue on to Portland, and take the longer but generally preferred route through Poland Spring. Good country roads gridiron most of this territory, with occasional stretches of gravel or macadam, the latter rapidly increasing.

There is another option frequently used by tourists who prefer to go up the Merrimac and Pemigewasset valleys—that is, to strike north from Worcester to Lowell, thence up through Manchester, Concord and Plymouth. This truck-line highway pases slightly west of the Lake Winnipesaukee district, and is much used on trips that include the many fine resorts on and about that Lake.

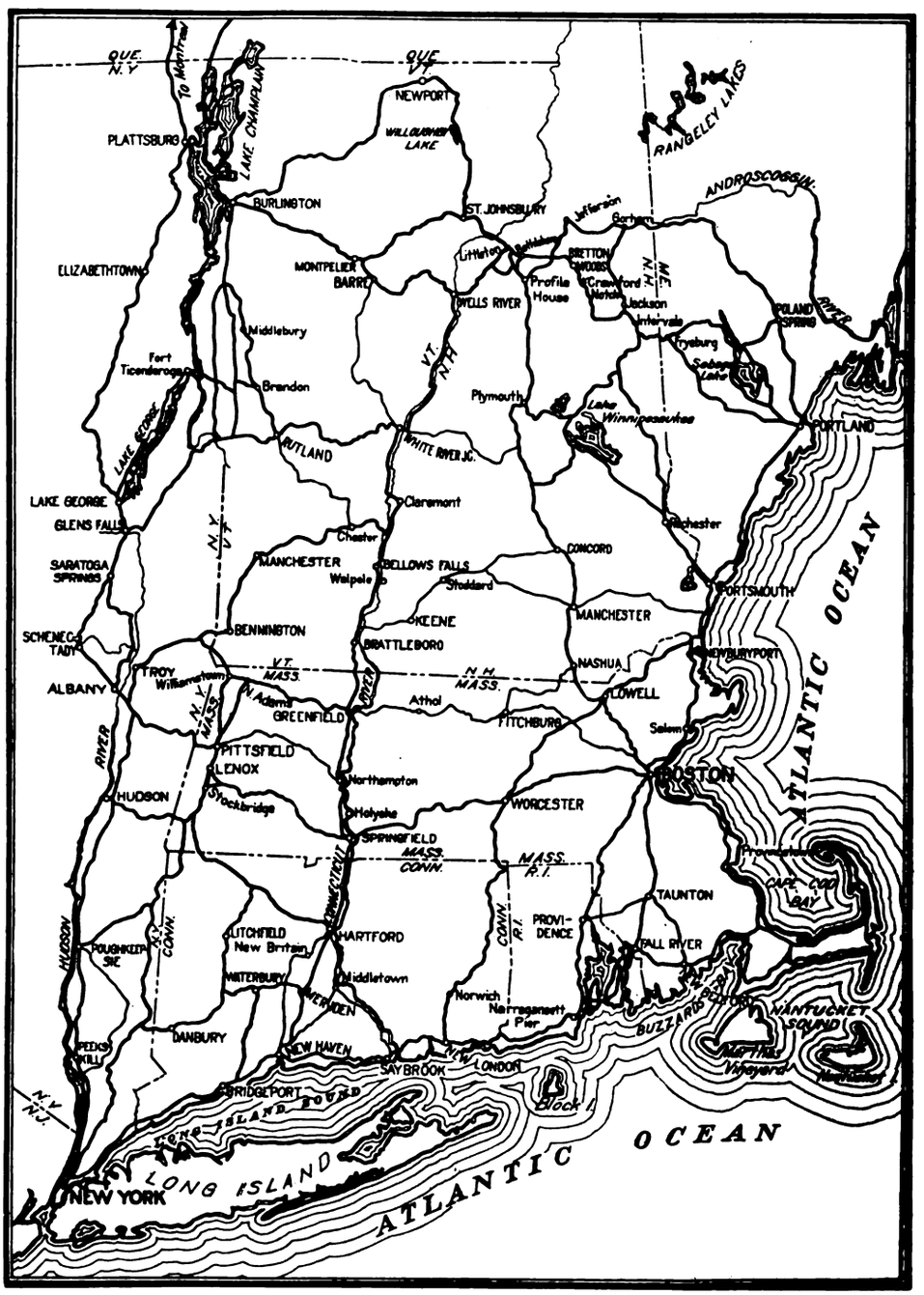
A PICTURESQUE REGION.

2.—From Troy, Saratoga Springs and Lake Champlain points: As the map shows, Troy and Saratoga Springs are the natural gateways from central and western New York State into upper New England, and through them passes a great deal of the travel to and from the West. Both have good, close connections into Southern Vermont, intersecting the Ideal Tour" at Bennington or Manchester, or following up through central Vermont, crossing at Rutland to the Connecticut River Valley, for White River Junction and points east and north. The Berkshires are easily included in such an itinerary by going through Albany to Pittsfield, thence either through Greenfield, Mass., or Manchester, Vt., though the distance is not really greater.

Lakes George and Champlain naturally interfere with what would otherwise be a number of fairly direct routes between the eastern Adirondacks and the White Mountains across Vermont. As a consequence, east-and-west travel in this region is restricted to a few points where there are facilities for crossing the long, narrow water boundary between the Empire State and the Green Mountain State. A good motor ferry connects Fort Ticonderoga (2 miles east of old Ticonderoga, N. Y.), with Larrabee's Point, Vt., making a short route to White River Junction and points north across Sherburne Mountain, which is a rough but still easier pass across an unavoidable range than Peru Mountain, farther south. Above, on the wider part of Lake Champlain, a good boat line makes one or more daily trips between Port Henry, Westport, Essex, Port Kent and Plattsburgh, N. Y., and Burlington, Vt. This boat line naturally does the most transferring between the Adirondacks and Vermont, making in reality a nearly direct route from the Thousand Islands and St. Lawrence River points to the White Mountains that way.

IN THE CONNECTICUT RIVER VALLEY.

3.—From lower Connecticut River Cities: The shortest and usually the best way from New Haven, Hartford, Springfield and Greenfield to the White Mountains is directly up the Connecticut River Valley through Brattleboro, White River Junction, Hanover and Wells River, where a right turn is made away from the valley so far followed to Littleton, Bethlehem and Bretton Woods. To one who has never been this way the trip is a revelation; every angle of the river presents a new vista, seemingly different from any other, and—in good weather—one almost regrets to leave it for the short run into the mountains. In wet weather none of these roads is good.



Outline map of main-traveled motorcycle routes to the White Mountains.

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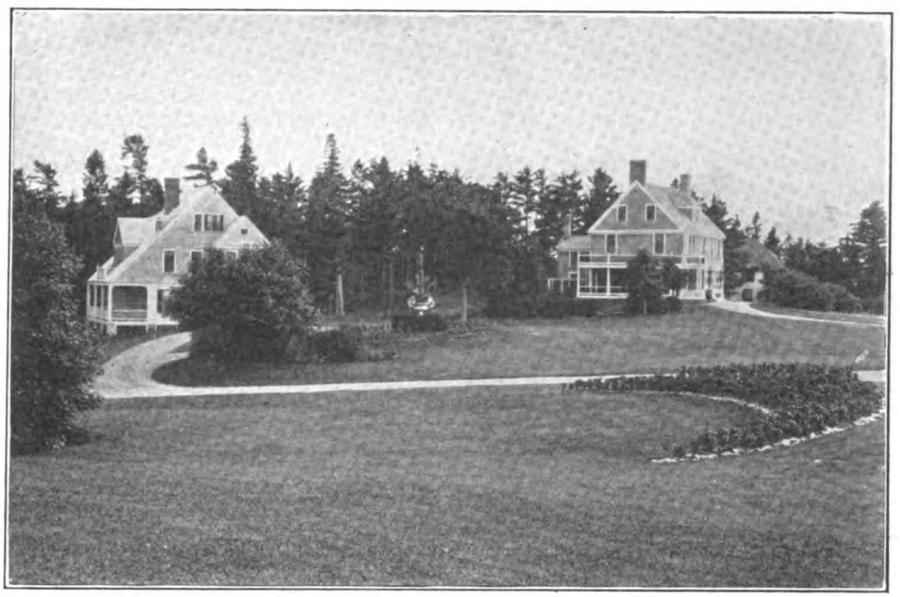
One interesting feature of a trip up or down the Connecticut River is the frequent crossings, in order to take advantage of the best stretches on both sides. The traveler is in Vermont for an hour or two, then in New Hampshire, crossing on some of the quaintest of old wood bridges, with now and then a more modern structure, built to take the place of an old-timer. Toll is still charged on some of these bridges, while others have been made free. There are very many grades on the Connecticut River line, but no single climb as long and steep as Peru Mountain on the "Ideal Tour" route.

4.—From the Coast resorts and Cape Cod: Most of the very large summer travel between Newport, Narragansett Pier, Providence, Cape Cod, Plymouth, etc., to points north goes via Boston (for which see the next paragraph, No. 5). This not only gives the best roads, all things considered, but it is about as short a way as can be figured. It is perfectly feasible, however, to cut across from any of these points to Springfield or Worcester for a connection with the Connecticut River Valley line or for the Merrimack Valley (the latter most conveniently reached at Lowell or Nashua).



Typical summer cottages in the hills of Northern New Hampshire.

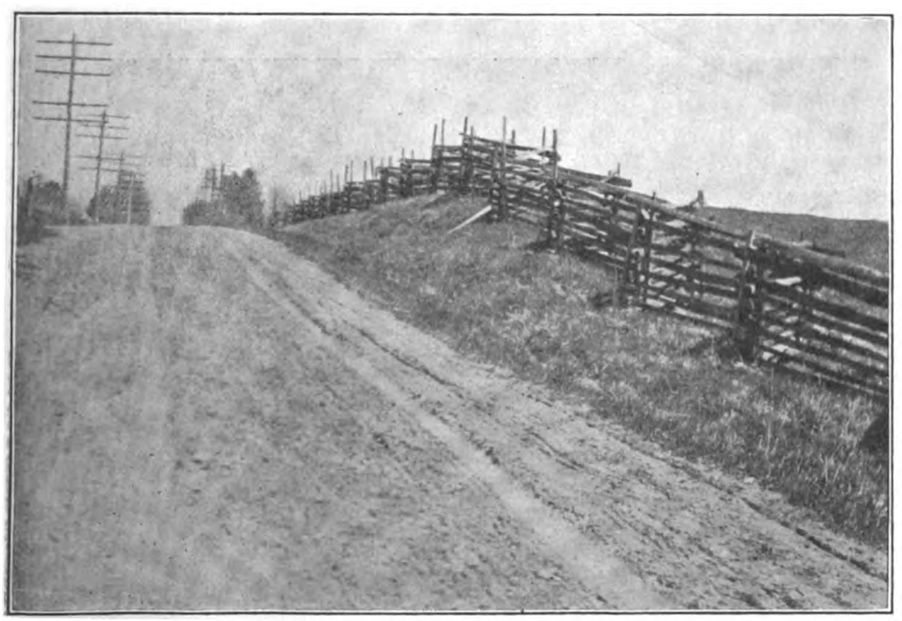
FINE RUN ALONG THE SEACOAST.

5.—From Boston and Eastern Massachusetts Points: The choice of routes between Boston and the White Mountains is not as great as from New York, principally because the Connecticut River Valley and the Green Mountains, with their many options, are geographically aside. Somewhat the shortest way is to Lowell and up the Merrimac Valley—an excellent trip, with fewer grades than the Connecticut River Valley and scarcely less picturesque. This route leads through Nashua, Manchester, Concord and Plymouth; it passes the Flume, the Profile House and Profile Lake, coming almost at once to a fork of main roads. Here you take the right for Twin Mountain, Fabyans, Bretton Woods, Crawford House, Jefferson, Jackson, Gorham, etc., or the left for Franconia, Littleton, Bethlehem, etc., in case it is not planned to go through Bretton woods.

On account of the excellent roads and fine seacoast, however, most tours from Boston to the White Mountains start up the Massachusetts-New Hampshire Coast, going through Lynn, Salem, Beverly and Ipswich to Newburyport, in leaving which the interstate line is crossed into New Hampshire. For a trifle less than 25 miles the ocean is closely followed through Salisbury, the Hamptons and Rye Beach to Portsmouth along a stretch of ocean not surpassed above or below. At Portsmouth the trunk-line so far up the coast divides into three streams of travel for the balance of the way.

The shortest of these starts north-by-west through Dover and Rochester where, bending somewhat to the right, it is continued up through Ossipee, Conway and Intervale, striking the picturesque valley of the Saco River and following it up through Crawford Notch to Bretton Woods or beyond. Roads are very good from Portsmouth to Dover and Rochester, with some stretches between Rochester and Intervale only fair, but still very heavily traveled. The principal alternate line turns gradually west from Rochester, skirting either side of Lake Winnipesaukee, and coming back into either the Merrimac Valley route or the Crawford Notch line a short distance above that lake.

It is not materially farther to include parts of Maine in Boston-White Mountain schedules via Portsmouth; in that case the tourist crosses the interstate line again in leaving Portsmouth, and continues directly up the picturesque Maine Coast through the various Yorks and the Kennebunks to Biddeford and Saco. From here a short detour can be made to Old Orchard, or the main line followed practically straight up to Portland, where a number of options again present themselves. Most travel goes, however, by Poland Spring, Naples, Fryeburg, Intervale and Crawford Notch, though a somewhat shorter line skirts the lower edge of Sebago Lake and follows the general course of the Saco River. Occasionally a still longer way is preferred via Augusta, or Auburn-Lewiston, either turning down to a connection with the regular Portland-White Mountain routes, or skirting the lower side of the Androscoggin River and entering the mountains via Gorham.



Roads in the hill country of New England are usually well drained and quickly dry out after rain, thus insuring the tourist fair going.

PLEASANT TRIPS INTO THE DOMINION.

6.—From Principal Canadian Points: Motorcycle travel between the Province of Quebec and northern New England has greatly increased during the past two years, due principally to the compilation of several good routes, aided materially by improved facilities for crossing the international border. As a matter of fact, Montreal and Brattleboro, Vt., are only about equally distant from Mount Washington, and even Quebec is nearer Bethlehem than either Hartford, Conn., or Boston. The international line makes them seem farther apart than they really are.

Trips from Montreal to the White Mountains are usually made by Burlington, running nearly south through Chamby and St. John to the upper boundary of Lake Champlain, where the choice is offered of following down the west side of the lake to Plattsburg, and taking boat to Burlington, or of turning east from the vicinity of La Colle Junction through

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the Aibourg Tongue to the Hero Islands set in the midst of the lake. A surprisingly good road extends through this chain of islands, which are all connected by substantial bridges; this route comes onto the Vermont mainland a few miles above Winooski, a northern suburb of Burlington, and it makes one of the most picturesque and interesting trips to be found anywhere.

From Burlington a very good road leads to the White Mountains through Williston, Richmond and Montpelier, dividing there for two routes to points beyond, via (1) St. Johnsbury and Littleton, or via (2) Barre and Wells River. Lately a great deal of interest has been aroused in the Burlington-St. Johnsbury route via Newport, which gives exquisite glimpses of Lake Memphremagog and Willoughby Lake. It is possible to make the trip from Montreal to the White Mountains via Burlington in a long day, but there is plenty of sightseeing for two days.

VARYING CUSTOMS REGULATIONS.

The routes from Quebec to the White Mountains are not traveled as much as those from Montreal; the distance is, of course, much greater, and the trip is through a long stretch of French-speaking country with inferior accommodations. The usual way from Quebec is down through Richmond or Sherbrooke, P. Q., to Newport, Vt., from which point it is about 75 miles to the center of the mountains. Of course in crossing the international border, customs must be passed; and unfortunately this has not yet been reduced to anything like a uniform practice. At some points along the boundary, customs house brokers will go your bond for a small fee, but at other places only a cash deposit will be accepted. That being the case, the only point of safety is to carry sufficient funds to make a deposit (double the estimated duties), and get a receipt which calls for the return of the amount on leaving the country. The matter of licenses is also an unsettled one, one province adopting one policy and another province another policy. In view of the growing importance of Canada as a touring ground, it is hoped that this situation may be straightened out in the reasonably near future. However, one making a White Mountains round trip from this direction will need only one license.

The tide of road travel to and from the White Mountains naturally reaches its height in August—the most difficult month in the whole year to reconcile one's self to the cities, and—fortunately—the most convenient time to get away from the ordinary business. In August the largest crowds are at the resort hotels; this is the only time during the season when one runs much risk of finding them full, and when, in a few cases, a higher scale of rates is charged than in July or September.

RETURN TRIPS FROM THE MOUNTAINS.

Of course all tours outlined in the preceding paragraphs to the White Mountains may be reversed for use as return trips. Among the many desirable options is to go up the Connecticut River Valley and come down through Poland Spring, Portland and Boston, including in this circuit the longest and finest of all New England valleys, and over a hundred miles of splendid seacoast. Or one can go up the Merrimac Valley and return by the Ideal Tour route, and so on indefinitely, the options far exceeding the lines that can be distinctly shown on a map the size of the one accompanying this article.

For the relatively few who care to extend one of the conventional White Mountain circuits still farther, there are two additions that will well repay the extra distance traveled. One is up along the Connecticut River from Wells River to Lancaster (or from Littleton to Lancaster through Whitefield), thence to Colebrook, which is only about eight miles from the Quebec Province line. Turning right (east) at Colebrook, an excellent trip is had to Dixville Notch, one of the wonder spots of America but entirely away from the railroad and known only to relatively few.

This "Notch," or canyon as they would call it in the Far West, seems at first an impossible barrier, but as you approach it, the road opens almost mysteriously, and the climb is not at all severe. Continuing east from Dixville Notch you come to Errol, almost at the New Hampshire-Maine boundary; but instead of going into Maine, the road turns right and runs down the west side of the Androscoggin River through what they call locally the "13-mile woods." That stretches it somewhat, as my measurement was only 12½ miles; but the experience of traveling even that distance with the primeval forest on one side and the wild northern river on the other is something to be remembered. After emerging into settled country again you pass through Berlin into Gorham and are there again within the scope of the map, and on one of the conventional White Mountain circuits.

Another magnet for the distance travelers is the Rangeley Lake District, which is geographically to the north—and slightly east—of the White Mountains. The usual way to include the Rangeley section in one of the regular White Mountain circuits is to plan to go or come via Portland, Auburn, Lewiston, Augusta, Farmington, and Phillips (given in their order northbound). Connection is made between the Rangeley district and the White Mountains along the Androscoggin River and through Gorham, through a wonderland of mountain, forest, lake and stream.

Usually it takes from one to two weeks to make even the shortest of these White Mountain circuits from New York, Albany, Troy, Pittsfield, Springfield or Boston, depending of course on the route taken, and especially upon the weather, for while nearly all northern New England roads are good when dry, they are slow and unsafe when wet. One week's limit will make it necessary to hurry along more than the average tourist cares to do; but two weeks is ample, even with the Rangeley or Dixville Notch addition. The only "drawback" to going on one of these trips is that, somehow, one is uneasy until he is given the opportunity to plan another.

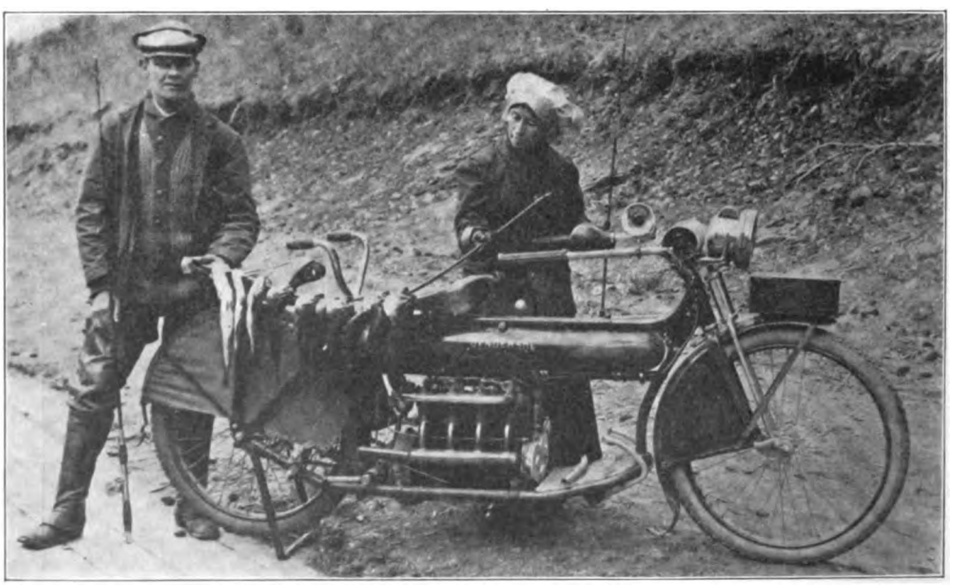
Road Conditions in Lake George District

FOR the greater part of a year, tourists making the run from Albany to Saratoga, Glens Falls, Lake George and the North have found that important stretch from Lake George village to Warrensburg closed, or partially closed, for new construction. During most of last fall, it was necessary to start north from Lake George village along the shore of the lake to a little place called Hillview, where a left turn was taken across the hills to Warrensburg.

While considerably longer than the direct road and quite hilly, it was generally preferred to passing over the obstructions on the short main line. At the present time the authorities are allowing tourists to use the direct State Road at their own risk, and a considerable number of them are going from Lake George village to Warrensburg that way, despite the difficulties on the incomplete stretches.

The spring floods carried away the bridge across the Hudson from Glens Falls to South Glens Falls on the direct line from Lake George village to Saratoga, and also damaged the bridge on the alternate line through Luzerne and Corinth. Crossing the Hudson at these important points is apt to be a more serious inconvenience during the coming summer than the road conditions above.

The Luzerne bridge, while not carried away, has been posted as unsafe, and tourists use it at their own risk; but while the Glens Falls-South Glens Falls bridge is out, it will be necessary for tourists to go around by the way of Fennimore and Hudson Falls.



Mr. and Mrs. B. H. Coats, of Spokane, at Newman Lake, Wash. ***Their time on the outing was about equally divided between their Henderson and black bass fishing.***

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A CLUTCH & BRAKE CHAT

by MECHANICUS

SITTING in a sidecar alongside "The Argus" on a road trip is always productive of much excitement. The Argus, like his Greek namesake, sees and hears everything that is going or coming, and has second-sight in most road matters; hence he is perfectly safe to ride with. On one of the last trips that we enjoyed together, it was decided that the boys would hold an impromptu hill-climb on one of the local "terrors," the solo riders utilizing the sidecarrists as judges. When we reached the hill, The Argus decided to go up first, but at the initial turn he pulled up and ran her over close to the edge of the road. Before I could complain of the nearness of the cliff to my right elbow, there came into view a rider descending on his smoking brake at no mean speed. When he saw us his eyes seemed to bulge from their sockets and he stood up hard on his pedals. The coaster locked, and he was bucked off into the grass on the opposite side of the road, while his bus soon came to rest in front of us.

The Argus quietly dismounted and examined the fallen machine, which was not damaged except for a dent in the tank and the loss of a pedal. The fabric on the brake band, however, had the appearance of cotton waste and indicated strongly that it was about as effective as that article for stopping purposes. The rider was with us in a short time, and as usual it fell to my lot to bind up the wounds. By this time the rest of the crowd had come up and we all went over to the side of the road for chat.

CAUSES OF BRAKE TROUBLE.

"Aviation is quite the rage nowadays," said The Argus, "as our brother here has demonstrated. Apart from that, however, it is rather dangerous, especially if indulged in on two wheels. If I am not too inquisitive, tell me who fixed up your coaster-brake the last time?" This to the stranger.

The rider looked surprised. "Why no one did," he replied. "I haven't touched it since I got the machine, but I noticed that the lining was a little ragged day before yesterday. She worked all right until just as I saw your outfit. It looked as big as a house, so I set my brake hard, and next thing I knew I was seeing stars right here in the grass. It's a rotten brake, anyhow."

"When I was in school," said The Argus mildly, "there used to be a saying that we had to copy in our writing-books: 'Cleanliness is next to godliness.' There isn't much of the latter quality about a motorcycle, I'll admit, but keeping things clean may stave off the twanging of a harp on the part of the rider and enable him to attain the godliness in another direction. Dirt was what caused your brake to act the way it did—dirt and lack of oil. If you had tested it out every time you went for a ride, and cleaned out the dirt from around the brake-arm and take-off spring and where the pedal chain sprocket is fitted on, you probably would still have a good brake. As it is, it is dangerous to ride with."

"Well, how am I to know all this about brakes?" inquired the stranger. "There's nothing in the general instruction book about it, and I never saw anything in the magazines except how good such and such a brake was and what parts it had in it. The fellow who sold me my machine said I was to let it alone, and that's what I've been doing."

"No, the books don't tell anything about brakes," continued The Argus, "but riders are supposed to remember the *bicycle* part of the machine as well as the motor part. There are some sure symptoms that a brake is not getting the cleaning it needs, and one of these is the necessity of clearing the brake now and then by pedaling forward to prevent its binding. We've all noticed this, I think. Then the way the brake releases on the stand when you let up on the pedal is another sign. If it springs off quickly, well and good; if slowly, look it over and see what the trouble is."

ARGUMENTS FOR TWO-BRAKE SYSTEMS.

"You were saying that the coaster brake was unsatisfactory," broke in one of the bunch. "Well, that's my idea, too. No coaster for me. A good strap, lined with raybestos, squeezing a plain little drum will pull my bus up short when I want it, and there are no collars and nuts or screws and rockers to bind up. If that brake gets out of order, there are two shoes inside that open out on the drum and do the same trick. Give me two simple brakes, and I can go down any hill, using either or both."

The Argus smiled, as he is a two-brake crank. "On the two-brake proposition I agree with you," he said, "but not about the coaster being 'punk.' Every rider ought to have two brakes for touring, and he ought to look them over every day. With a coaster-brake, all that's needed is a 'wipe-off' and a test, as I have said before. About other types of the coaster the same thing holds good as to cleaning. Don't forget the brake until it won't work at all before attending to it, and don't leave the renewing of the oil in the shell until she 'hollers' from being dry. But, brother," turning to the stranger, "why didn't you come down on compression as well as on the brake?"

"I tried that," was the reply, "but the clutch was slipping, so I thought it best to use the brake alone. If I tightened it up, it ran in jerks, so I let it slip until I got to a hill, when I put it in tight to go up. The clutch gets awfully hot in this part of the country where there are plenty of hills."

"Get over the idea that a clutch is intended for reducing speed," said The Argus, "and quit slipping it except for starting off. If you handle the motor right, there's no need to slip it at all; slipping burns the working parts and soon you have something that gives you a permanent free engine. The clutch is another part that you have to inspect every time you go out, and adjust when it needs it. If this took lots of time and work there might be some excuse for not doing it as often as is necessary, but a turn of a screwdriver or a little oil will generally be all that is needed.

JUDICIOUS HANDLING OF THE CLUTCH.

"Another thing; put the clutch in gradually. The first sign of a poor rider is getting away like Sam Hill with the motor sounding like a roller-coaster near the bottom of the dip. It may strike a few riders that it is brilliancy in riding to do thus, but it merely shows that the owner is inexperienced. 'Take it easy' is a good motto."

"What do you think about oiling the clutch, Argus," said the anti-coaster rider. "One fellow told me to use neatsfoot oil in

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A NEWSPAPER OUTFIT

THE 1913 Harley-Davidson motorcycle and delivery van shown in the accompanying photograph are used by the Washington *Times*, of Washington, D. C., in the delivery of its daily papers. The outfit was sold to the *Times* by Berryman & Williams, agents for the Harley-Davidson in the National Capitol.

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mine, but I haven't done so, as she is running all right. George here has a fibre facing and has the deuce of a time with it."

"No necessity to put oil on raybestos," replied The Argus, "but you need it with steel plates. George's fibre facing is working poorly because it hasn't been 'run in' yet. Just a little oil wouldn't do any harm to help it take a surface, but none after that, as oil rots it. He can do the running-in by careful movement of the clutch lever over the toothed quadrant, and his facing will last longer for not having oil on it."

"About a week ago," said the rider who had recovered from his tumble and had fixed up his bus preparatory to going on his way, "I came to a hill that looked like a toboggan slide; it was one near Blank, N. J. I tried four times to rush it, but it was no use and I had to push up finally, as there was no way around. Did any of you fellows ever get up it?"

"Not without pushing," said our competition man. "It's a killer for fair. Unless I'm in a race or regular run, I push hills like that, after getting up as far as I can under power. You only overheat the motor when you try that kind of hill often. There's where some riders make a mistake. Because they straddle a big twin, they think they can climb anything, and beat up their clutches in trying every grade that comes in their road. Then they blame the machine, of course. I remember a tour through the Adirondacks some summers back, where I pushed five miles out of thirteen. My partner preferred to ride the whole distance, and had to send back to civilization for a lot of new clutch parts. He got them in a week's time, but I had to ride over rotten pine-needle roads to the station to get them. If we both had been fools, one of us would have had to walk both ways, as the freight station was six miles from where we were waiting."

"What do you think will be the future clutch control, Doctor," said the anti-coaster rider. "Will it be foot or hand?"

"I think a combination of both," was my reply, "but most riders with lever control on their machines can operate the clutch with the left foot now by simply attaching a short bar to the lever. If the lever works forward to put in the clutch, reverse the collar on the cluch shaft and have it work forward to pull the clutch out. It's handy to be able to get a free engine when you have both hands on the grips, using the foot to pull the clutch out. A movement of 1/32 of an inch will disengage most clutches."

Having spent so much time in our discussion we gave up the idea of a climb for that day. Accordingly, we all started for home, dropping the rider with the disabled brake at the next agency, and reached the club in time to clean up and go off to dinner.

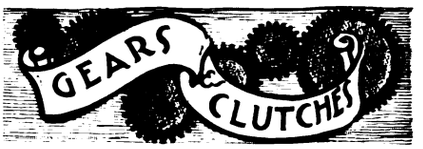
DIX OBTAINS CUT IN TOLL

LOCAL F. A. M. Commissioner C. F. Dix, of Stockton, N. J., reports that through his efforts as a Federation official he has obtained a cut in the bridge toll charged at Center Bridge. This structure spans the Delaware River between Stockton, N. J., and Center Bridge, Pa., and is on the regular route between Trenton and Delaware Water Gap. The rate of toll was five cents for many years, but from now on it will be two cents.

In addition to obtaining the new toll rate Mr. Dix has found time to sell seven twin Indians and one single so far. His agency is located on North Main street, Stockton, and his repair shop is on the F. A. M. registered list. He states that club affairs in his district are receiving a new impetus, and that he expects to launch a new F. A. M. organization in Flemington in the near future.

FROM Advertising Manager Frank L. Valiant, of the Miami Cycle & Manufacturing Company, comes the interesting photograph reproduced above and the following letter:

"New Haven, Conn., now boasts a basketball team composed of girls who are also motorcycle enthusiasts, and the picture shows them ready for a recent game in which they added to their string of victories. The team has won thirteen out of sixteen games played during the last season, and its fair members are now turning their attention once more to the alluring single-tracker. The team is captained by Miss Grace C. McAllen, who is in the center of the group, holding the ball. The young chap in the background coaches the team."



Aurora Automatic Machinery Co., 1307 Michigan avenue, Chicago, Ill. (Thor.)

Corbin Screw Corporation, New Britain, Conn. (Corbin brake.)

New Departure Mfg. Co., Bristol, Conn. (New Departure brake.)

Miami Cycle & Mfg. Co., 300 Hanover street, Middletown, Ohio. (Musselman brake.)

Aurora Automatic Machinery Co., 1307 Michigan avenue, Chicago, Ill. (Thor brake, free engine and two-speed.)

Eclipse Machine Co., Elmira, N. Y. (Eclipse free engine clutch and Eclipse coaster brake, front hubs, fork heads, etc.)

Nelson Johnson, 1511 W. Lafayette avenue, Baltimore, Md. (J. & S. clutch control.)

Perfection Two-Speed Hub Co., Fairfax, Minn. (Thiem Conversion set.)

COX FURNISHED A THRILL

DENVER, COLO.—While riding a one-mile exhibition against time at the Tuilleries Motordrome on May 4, Jim Cox, a local star, furnished a thriller that was not on the program. His machine caught fire and although riding at a mile a minute, Cox retained his presence of mind, turned off the power and did a circus hand-stand on one side of the machine, coming off the track uninjured. His machine was destroyed. Cox later picked up another rider's machine and figured in the most spectacular race of the day.

Summaries: One mile time trials, professional, 61 class—Bert Bruggerman, Indian, 43⅗; L. E. Bowen, Merkel, 45⅖; G. R. Stokes, Excelsior, 43⅕; L. Fleckstein, Indian, 43⅗, and Curly Fredericks, Excelsior, 41⅖.

Three-mile professional, stripped stock, 61 class—L. E. Bowen, Harley-Davidson; Jim Cox, Indian, and L. Parkhurst, Excelsior. Time, 2:37⅘.

Two-mile open professional, 61 class—L. Fleckstein, Indian; Bert Bruggerman, Indian, and L. E. Bowen, Merkel. Time, 1:34⅗.

Two-mile match race, professional, 61 class—Curly Fredericks, Excelsior; G. R. Stockes, Excelsior. Time, 1:30⅗.

SPECIAL CARS TO DENVER.

ARRANGEMENTS are now being made by MOTORCYCLE ILLUSTRATED for a special car, or cars, to carry motorcyclists, trade representatives and F. A. M. officials from eastern districts to the coming national assembly of the F. A. M. in Denver. In all probability the Twentieth Century Limited will be used out of New York, leaving on Friday afternoon preceding the opening of the convention. From Chicago the trip will be continued over the Rock Island line to the Mile-High City, where the travelers will arrive on Sunday afternoon. This schedule will allow several days for sightseeing in and about Denver before the opening of the convention program. The fare to Denver and return, including the excess on the Twentieth Century, will be about $75.

All who contemplate making the trip are requested to communicate with J. Leo Sauer, 51 Chambers street, without delay, so that some idea may be obtained of the accommodations that will be required.

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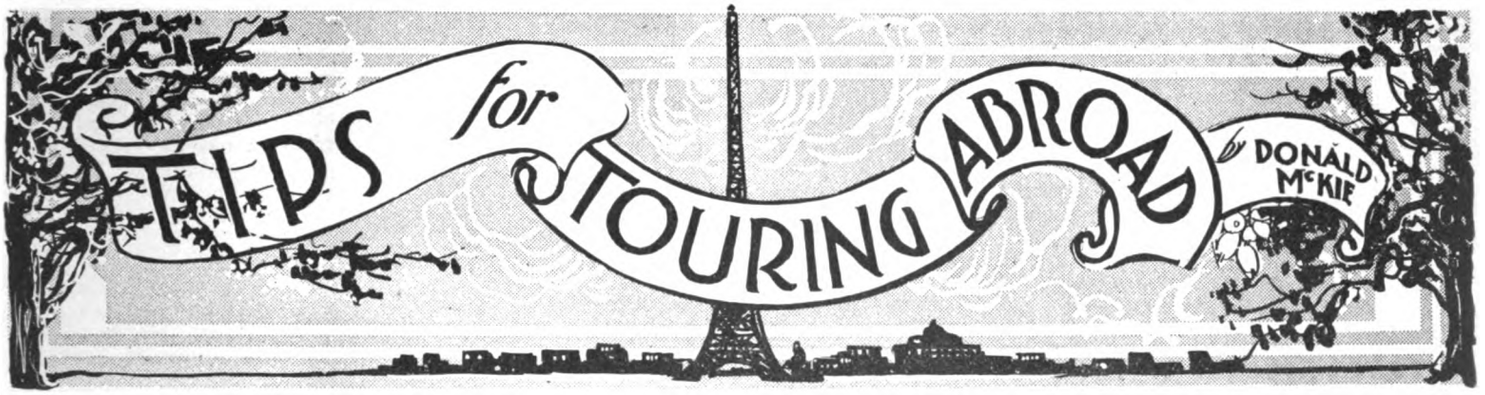


HAVING devoted nearly five months of 1912 to a motorcycle tour of Europe, I feel fairly competent to offer a few hints for the rider who contemplates such a trip, and at the suggestion of the Editor I have embodied them in the article which follows. I do not mean to imply that I am going to analyze the whole subject of European touring by motorcycle—far from it—but I do believe that I can give practical assistance to those motorcyclists who are now laying plans for their first journey abroad. Foreign touring is not as complicated as some riders believe, but I must admit that there are many occasions on which the traveler will benefit by having a little advance knowledge.

To begin with, the prospective tourist should give much thought to mapping his route. A main line of travel should be decided upon, with a few options that can be allowed if it is found necessary to change the plans for any reason. Much depends upon this preparatory work, for the success of such a trip is usually in proportion to the number of interesting points that can be visited along the line without greatly increasing traveling expenses. In connection with the route-mapping let me warn you against working from a railroad map. Most of them are unreliable, and at best they do not give you all the information you need.

ADVANTAGES OF CLUB AFFILIATION.

It is always best to get in touch with a good touring club, preferably in England or France, and inquire about maps covering the route you have in mind. The leading clubs in these countries keep in touch with touring conditions practically the world over, and it is therefore a simple matter for them to help you. Besides, the fees are nominal. But before discussing this phase of the situation more fully, let me give a few pointers relative to the crating and shipping of machines and the obtaining of passes to permit of travel from country to country. We will thus be dealing with our problems in the order in which they naturally present themselves.

The crating for our party was done by the Hendee Mfg. Co., but it is hardly fair to expect this service from manufacturers. Most tourists go abroad just when the factories are busiest, and the crating and shipping of machines consumes valuable time. It is more reasonable to turn the motorcycles over to a forwarding company to be crated and sent abroad. The American Express Company, for example, is in a position to take over this work. If the touring party rides to New York City it will be a simple matter to call at the company's headquarters, 65 Broadway, and make all arrangements; if the machine or machines must be forwarded to the metropolis in advance the express company officials can be instructed by mail. Having such matters to deal with regularly the express companies know just what steps to take concerning the return of the motorcycle to this country, and they will steer the rider clear of trouble with the customs officers. Keep this last tip in mind. It may save you time, worry and money.

THE INTERNATIONAL TOURING PASS.

Having made arrangements to ship his machine the tourist should next consider the pass problem. If the motorcyclist will visit England first he will be able to obtain an International Touring Pass without very much trouble, and at a cost of approximately $7.50. These passes can also be had in Paris and Berlin, but it is much simpler to obtain them in England, provided the traveler is going to strike that country before doing any continental riding. I would suggest writing the Auto-Cycle Union, 89 Pall Mall, London, S. W., relative to the pass. The organization will be quite willing to take up the matter.

Our party did not go to England first, and no International Pass was obtained. We risked getting through without difficulty and managed to do it, but as a rule I consider it safer to have the pass. Our A. C. U. cards did not carry any direct weight at the frontiers, but I noticed that where the customs officers were at all inclined to let us pass the cards appeared to strengthen our case. They proved at least that we were members of a motorcycle organization and that seemed to impress the officials somewhat. In no country that we visited was the Auto-Cycle Union listed among the clubs that were extended the privilege of a touring period without tax, and for that reason I do not consider the A. C. U. the strongest foreign body with which to be affiliated. In my opinion it would be better to join the Cyclists' Touring Club or the Touring Club of France—better both, as the cost is nominal. In England, of course, the A. C. U. is of great assistance, so it is well to affiliate with it even though it may be of small value on the continent.

A touring membership in the A. C. U. costs $1.20, and the member is entitled to the Associates' clubrooms in the handsome home of the Royal Automobile Club in London. There the tourist will have every comfort, and all the automobile and motorcycle publications will be found on file.

PASSING THE SWEDISH CUSTOMS.

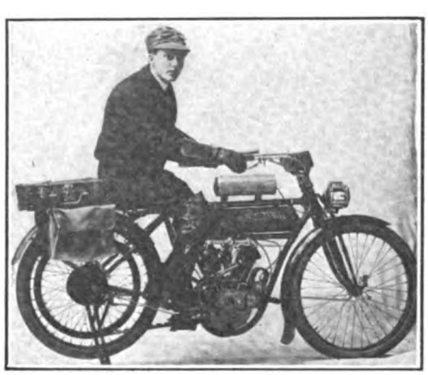
Our first dealings with foreign customs officers were at Malmo, Sweden. Here we had practically no trouble. The fee was low and the officers were quite reasonable. Then came Denmark. Motorcyclists here have to pass the Free Harbor, at Copenhagen. It is necessary to visit the government office where the rider will be furnished with a ticket allowing the motorcycle to pass free of duty, provided it is explained that the machine is not for sale and is for the owner's use exclusively. In the same way new tires and parts may be brought in. After passing the Free Harbor the rider will find it necessary to visit police headquarters and obtain a driving license and number plate, the latter to be carried on the front of the machine.

Then the machine is inspected by the fire department officials to ascertain whether it may safely be driven through the streets. We avoided the latter ordeal, as a motorcycle dealer in Copenhagen arranged matters for us. The cost of the Danish driving license and plate is 81 cents. This is all the government expense attached to touring by motorcycle in Denmark. Gasoline is obtainable in a great many stores, as well as at garages and chemists' shops. The regular price is about 40 to 45 cents per gallon, but it may be necessary at times to pay a little more. It is sold by the liter, nearly a quart, or by the kilogram, 2.2 pounds. The roads throughout Denmark are simply wonderful.

We next entered Germany. Our dealings

A PLAY BY MOTORCYCLISTS

DEVOTEES of the motor two-wheeler will be interested in the announcement that "The Ghost Breaker," a thrilling melodrama now running to big houses in the Lyceum Theatre, New York City, was written by two motorcyclists, and that the plot was almost entirely worked out on a motorcycle trip from Chicago to New York. Charles W. Goddard, co-author with Paul Dickey, who rode a Flying Merkel 6 from the Windy City to New York a year ago last April, credits the whole achievement to his machine and the stimulus of country roads.



The photograph shows Goddard on the machine with which he made the Chicago-New York trip.

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here were not quite so smooth as they might have been, but there was no trouble worthy the name. Before leaving home we had obtained from the Secretary of State an official paper stating that we were duly licensed there, and we later had this paper O. K.'d by the German Consul in our capital city. On presentation of this paper at the customs office in Germany we were furnished with an escort who took us to police headquarters, and after some wrangling we were supplied with a license that was good for thirty days at any time during one year. If the tourist leaves the country the card is stamped, and it is stamped again if he returns so that the officials make sure that his total stay is not longer than thirty days. If a rider stays over this limit he must take out a permanent driving license. When the rider leaves the country and attempts to re-enter at another point the officials will probably hold out for a deposit, but this should not be paid. The rider has his thirty-day license and cannot be compelled to post a deposit. Germany's roads are excellent.

In Austria we were at first turned down. The officers could not speak English and we were equally helpless with their language, but by putting up a stiff pantomimic argument we finally got through free, with the understanding that we would not leave the country at their station. We had no trouble getting out of Austria. Touring there cost us nothing as far as the government was concerned. Gasoline is higher there than in Denmark or Germany; it costs from 40 to 65 cents a gallon, according to the disposition of the garageman and how prosperous you happen to look. In this country drive on the left side of the road exclusively. The highways are fair.

Next came Switzerland. We tried to get in without putting up a deposit but found it impossible. However, the amount demanded was only $5.60 for three machines (one of our party of four rode tandem), so we left the deposit. It was returned when we left the country. Roads satisfactory.

IN ITALY AND FRANCE.

Going into Italy we were stopped by a crowd of customs office boys who inquired if we had cigarettes. One of our party had twenty, and the boys took five as toll. When we struck the real customs officers the problem was a little knottier. We argued for several hours and finally had to pay $16.50, which was returned when we left the country. We found the roads either very good or very bad, mostly the latter. The gasoline prices were about the same as those of Austria, but fuel was harder to find. The quality was low.

France is an ideal country for touring. We paid 12 cents for a government stamp to take us in. Gasoline was cheaper than in any country we had visited previously, and the people seem to welcome motorists. The roads are good, and the towns appear to be farther apart than in most other European countries. The rule is to drive on the right side of the road, a notable improvement over the custom in Italy, where travelers occupy the roads without regard for the rights of others who may wish to use them.

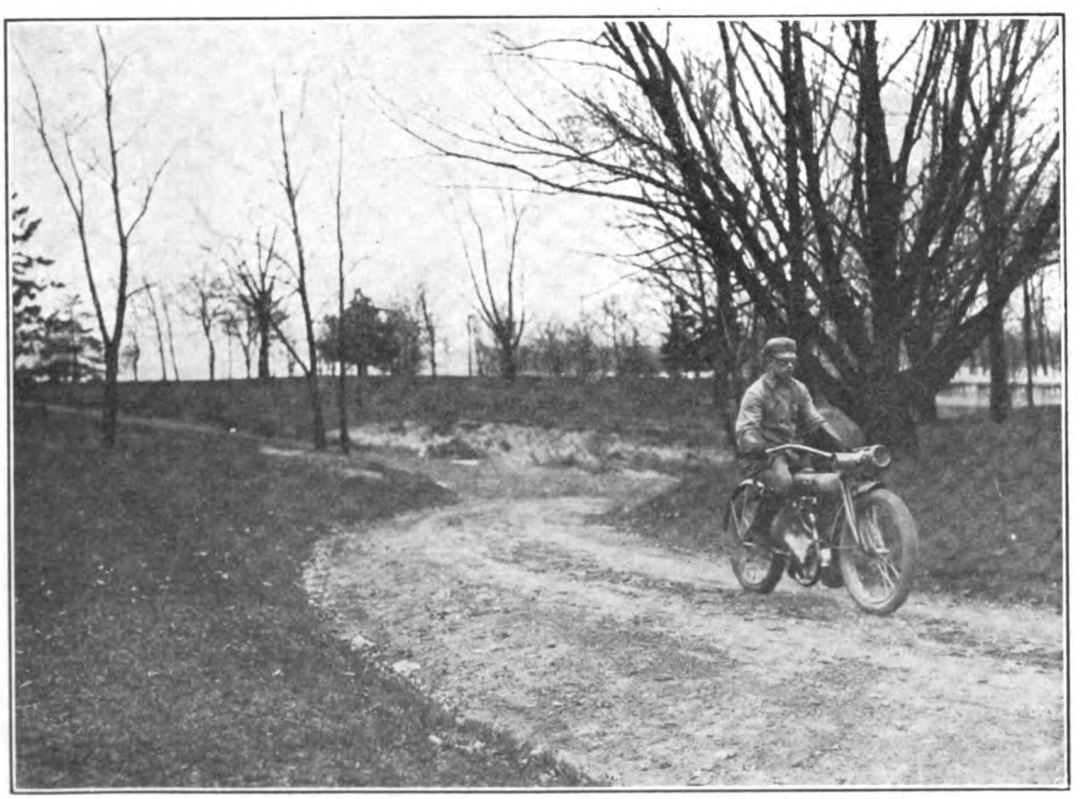
From France we went to England. We were somewhat confused when we landed on John Bull's soil. At the boat the tourist will usually be met by a guide of the Royal Automobile Club who will give him advice. If the rider is unfortunate—as I was—and has to ship to London, he should go to Spring Gardens, near Trafalgar Square, and pay $1.20 for registration and the same amount for a driving license. He should then go to a garage and have the required number plates made, the number having been specified in the registration blank.

PREPARING FOR THE HOMEWARD TRIP.

There is a government tax of about $6, but it seems to be quite the custom among tourists to ignore this. I believe November is the month for collecting this tax, and the tourist is not likely to be held up for it at other times. The roads are excellent, but full of curves, and the tourist will do well to keep a sharp lookout. Accidents are quite likely to happen when vehicles come onto the main roads from cross-roads, and the thick hedges help to confuse the visiting rider. Road signs are plentiful and the traveler can hardly become lost. Gasoline comes in sealed cans of two gallons each and the regular price is 36 cents per Imperial gallon, which is equal to about one and a quarter of our United States gallons.

From England we took ship for America and had no hitch. It is only necessary to follow closely the instructions given by the forwarding company. If these are not adhered to there is certain to be trouble. The rider may be delayed and even called upon to pay duty on his machine.

MEMBERS of the Fruit Belt M. C., of Benton Harbor, Mich., recently made a run to Niles by way of Eau Clair and Dowagiac.



DAY by day the solitary motorcyclist is becoming a more uncommon sight on the roads and the scout of a few years ago is giving way to the club squad, the tandem and the sidecar party. Still there are a few self-sufficient enthusiasts who are content with simply the comradeship of a trusty mount, and for these the lure of the open road is ever strong. The accompanying photograph shows an Ohio motorcyclist making the most of what Nature offers along the roads in his district.

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TOGS for the RIDER

ONE of the most satisfactory indications for the 1913 season is a lively interest among motorcyclists in the problem of suitable costuming for the road. Heretofore this phase of the situation has been treated with considerable indifference, and as a result devotees of the sport have missed innumerable opportunities to offset the opinion entertained by most non-riders that motorcycling and reasonable cleanliness are incompatible. But we are coming to a more sensible view of the rider's togs. The F. A. M. has placed its stamp of approval upon a standard style of uniform, and the tidy motorcyclist in his comfortable Norfolk riding suit is a pleasant and more familiar sight on the roads.

After all, the choice of a riding costume does not present a knotty problem. The thoughtful motorcyclist simply demands three qualifications—neatness, comfort and serviceability. He does not expect Beau Brummel fashions, nor would he care to be seen in them if they were available. He is inherently practical, a utilitarian. In no instance would he sacrifice service-giving for mere appearance, but when the two may be combined (and they may) he is satisfied.

SELECTING A MODEL UNIFORM.

These facts were kept in mind by the committee that selected an official F. A. M. uniform not long ago. Samples were inspected—many of them—and three grades of material were finally approved. The color, dark olive, and the style are standard, but two materials are offered for summer use and one for winter. The summer goods are Roseberry and a material known as Shelter Tent, and for cold-weather service Fustian is recommended. The latter is similar to corduroy, warm, neat in appearance, and moderate in price. Roseberry is somewhat higher in price than the Shelter Tent material used for the summer suits, and the latter has the additional advantage of being waterproof.

Much depends upon the quality of the material used, but of almost equal importance is the actual make-up of the suit. Hence the F. A. M. specifications are very explicit. They are based upon the practical experience of veteran roadsters, the aim being to avoid frippery and still provide every adjunct of real value to the wearer. For this reason the motorcyclist may feel safe in following the suggestions offered, even though he may not be a Federation member or inclined to invest in one of the official uniforms.

A coat of Norfolk style is recommended, with flapped pockets and a tab collar so that the latter may be buttoned closely around the neck. Four strap pleats are specified, two in front and two in back. A suitable belt is to be provided, and the cuffs of the coat are to carry tabs so that they may be buttoned around the wrists in dusty or rainy weather. The coat must have at least one breast pocket and one inside pocket. Special attention is called to the necessity for having all suits full size, as a riding costume that proves tight at any point cannot be expected to give either comfort or long service.

TROUSERS ROOMY AND REINFORCED.

The trousers are to extend well below the knee and may be either laced or buttoned. It is likely that riders in general will find the lacing a more comfortable and handy system than the buttons. The reinforcement of the seat should be extra wide and is to extend all the way down on the inside seam. Two side pockets are needed, two hip pockets and a watch pocket, and flaps are necessary on all except the pockets at the sides.

No reference is made to leggings in the report of the F. A. M. committee for the reason that there is a considerable difference of opinion as to the most desirable style of leg-covering. For summer use the writer has found canvas the most suitable legging material. It affords all the protection that is obtainable with a puttee or hip-length leather legging and is cooler. However, the best brands of leather leggings have now been developed to the point where they are very comfortable. They are made to fit the rider's leg and are thus tidy in appearance under all weather conditions. Some hip-length makes are furnished with a gusset so placed that it affords all the pliability that can be desired at the knee. While not generally favored for summer use the hip-length legging has a marked advantage in that it provides ample protection in case the rider desires to make a short trip without waiting to change from street togs to regular road costume.

No experienced motorcyclist will undertake a long trip without suitable gloves, and even on a short jaunt some kind of covering for the hands will be found quite necessary. For summer riding the gloves should be light in weight—but strongly made. A pair of ordinary kid gloves will be quickly placed in the discard, as motorcyclists who have used them know, and it is well to avoid extra expense and annoyance by obtaining reliable gloves at the opening of the season. At least one firm specializes on motoring gloves with ventilated backs, and the value of this feature will be quickly apparent on a long, dusty jaunt over summer roads. It goes without saying that excessive heat and water are enemies of leather, and while the best gloves will withstand these elements for a surprisingly long time it is just as well to protect them as far as is possible. The writer has seen a careless motorcyclist lay his gloves on top of a hot motor while making a hasty adjustment.

Dr. Bug—"What seems to be bothering you?"
Lightning Bug—"Ignition trouble."

GOGGLES AND THE CAP.

Too much importance cannot be attached to the goggles. Many seasoned riders pretend to look upon goggles as essential only to the novice, but this is a fallacy. The eyes of the five-season roadster are no more immune from dust, flying particles of road grit, etc., than those of the rider who is making his first trip. A foreign substance in the eye may cause trouble in more than one direction. The writer has known a hardened tourist to run amuck on the road with his machine simply because a particle of sand had entered one of his eyes and temporarily blinded him. Again, the irritation caused by such a particle may lead to continued eye trouble, if not immediately dealt with—and riders who will stop on a road trip to consult an oculist are rare, to say the least. So it is safest and most economical to buy a pair of goggles before entering upon the summer's riding—*and use them.* Pay no attention to the wily chap who inquires whether you are booked for a journey around the world in four days. He is a sarcastician of the most sarcastic dye. He would give the impression that only the globe-circling speedster requires eye protection, but he is wrong. Pass him a word of advice, and continue wearing your goggles.

Goggles should be adjusted to fit over the eyes as closely as possible without exerting undue pressure at any point. They should also have a gauze guard at either side to keep out dust and still permit of ventilation.

Loewenberg Co., Dept. J., 58 Colden street, Newark, N. J. (Loewenberg clothing.)

Morrison-Ricker Mfg. Co., 27 Broad street, Grinnell, Iowa. (Grinnell Grip-Tite gloves.)

Seymour Uniform Co., 1777 Broadway, New York City. (Clothing.)

Hagerstown Legging Co., Hagerstown, Md. (Halco-Brand leggings.)

Atlas Specialty Mfg. Co., 557 W. Jackson Blvd., Chicago, Ill. (Atlas leggings.)

Nathan Novelty Mfg. Co., 84-90 Reade street, New York City. (Nathan Koverall garments, leggings, etc.)

Charles Carnes, Aurora, Ill. (Motorcycle clothing.)

TWO new agencies for the Thor have been placed with the Cadillac Motor Company, Mobile, Ala., and A. E. Hoy, 2133 Hoyt avenue, Indianapolis, Ind.

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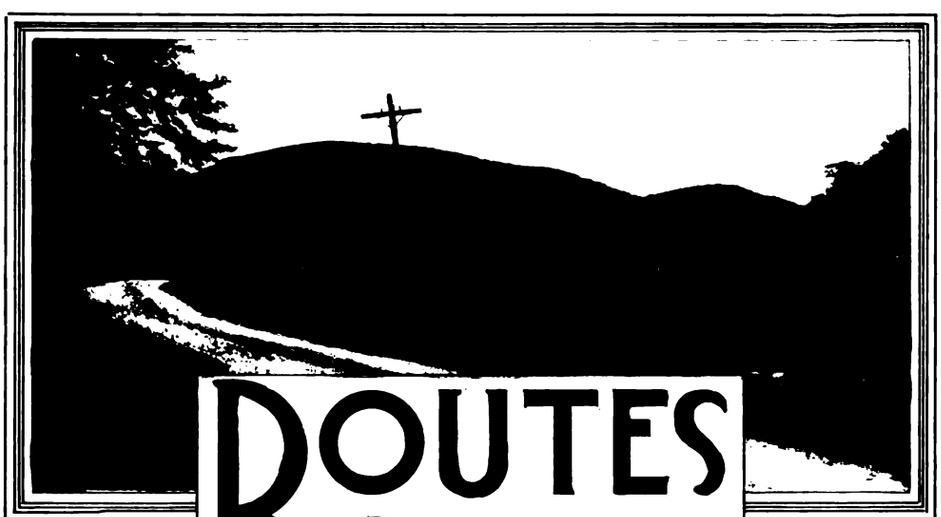
COAST to COAST ROUTES



ONE of the most significant phases of motor touring in the United States during the last year has been the rapid spread of interest in transcontinental routes, an interest enlivened by broad-gauge activities of good roads organizations and fostered by systematic mapping of the best available highways from ocean to ocean. Two years ago a 500-mile journey was regarded in the light of a notable achievement by motorcyclists; today the rider who contemplates anything more than a week-end outing is quite likely to turn his attention to a coast-to-coast trip. Thus are we demonstrating the forcefulness of the time-worn adage that ours is "a small world, after all."

In the front ranks of those who are laboring to familiarize tourists with transcontinental routes stands A. L. Westgard, the veteran pathfinder of the American Automobile Association, from whose field notes were made the extensive improvements featured in the map that accompanies this article. This map is fresh from the press and embodies easily twice as much information of value to the transcontinentalist as the best previous offering of its kind. In a recent conversation with the writer Mr. Westgard, who is now preparing to leave New York City for his seventh cross-country trip, expressed satisfaction over the development of interest in transcontinental touring and told with a chuckle of how he had encountered a solitary motorcyclist in a barren district of Nebraska, a hundred miles from the nearest point at which a single-tracker could reasonably be expected to make its appearance.

OF INTEREST TO F. A. M. TOURISTS.

F. A. M. riders who are now laying plans to join one of the national tours to the Federation assembly in Denver will find much to interest them in the new transcontinental map. They are given a comprehensive view of the routes open to them, and even of the minor lines of travel by which they will be enabled to reach the cities from which the main touring divisions will start on the long trips to Denver. Motorcyclists within easy riding distance of Chicago will make that city their point of assembly, and experience little difficulty in mapping their route to the scene of the convention. It is likely that the Chicago division will be augmented by a creditable delegation of riders from the Indianapolis district, and by another squad from the vicinity of Minneapolis and St. Paul, to the northwest. The latter squad will find roads leading almost directly southward by which they will be enabled to join the Chicago party at Des Moines, and although a little hard going may be encountered on the way to the main touring line, it will no doubt be chosen in preference to the much longer route from Minneapolis, via Milwaukee and Chicago.

From Chicago the tourists may choose between two main routes to Omaha, and it is likely that the more southerly line will be followed via Davenport and Des Moines. In addition to affording better roads in general it is a little more direct than the upper route. At Omaha the touring division will no doubt be joined by a squad from the Kansas City district, although the main body of Kansas motorcyclists will proceed directly westward out of their State and reach the convention city via Pueblo and Colorado Springs. The latter tour will be conducted by the Kansas Short Grass Motorcycle Club, which is to combine its annual outing with the journey to the Mile-High City.

FROM OMAHA TO DENVER.

Westward from Omaha the route is fairly direct to the convention city, the greater part of it being over the Platte River road. It will be seen by reference to the map that there is an optional route across Missouri, and that two main routes also traverse Kansas, so that little trouble should be experienced by motorcyclists of these states who wish to organize small parties and make the run to Denver. By considering the schedule of either the Short Grass Club or the touring division from Chicago, satisfactory connections may be arranged for at half a dozen points on the lines of transcontinental travel. Plans are under way for the organization of a squad at Aberdeen, S. D., and these riders will probably join the Chicagoans and their friends at Omaha.

From the West and Northwest the routes to Denver will not be found so direct, but they will probably make up in scenic interest what they lack otherwise. Riders from the Northwest district can follow the Oregon Trail into Wyoming and strike the Overland Trail at Granger, from which point they may proceed via Laramie to Denver. It must be conceded that such a trip is likely to afford greater road variety than the average rider considers necessary to his perfect enjoyment of a tour, but what motorcyclists have done in the past they can do again, and it is quite possible that the Northwest will have a representative body of riders on hand when the roll is called in the assembly city.

Riders in Middle Pacific Coast territory are also confronted by a rather impressive trip if they desire to bestride their single-trackers into Denver, but the journey is by no means prohibitive. From the San Francisco district the run may be made to Carson City, and thence by the Overland Trail to Salt Lake City. An option may be taken from Ely, Nev., to Springville, Utah, but it is doubtful if there would be a great gain in actual mileage and the roads are likely to be more satisfactory on the upper route, through Salt Lake City.

A REGION OF GREAT SCENIC INTEREST.

Pacific Coast motorcyclists who have slated any long tour for the 1913 season will probably take advantage of the opportunity to attend the convention and at the same time enjoy an outing which promises wonderful returns in the way of scenic interest. Every mile of the run eastward from the coast holds out inducements for the rider in search of new road thrills, and it has been demonstrated that there are no sections of the route to Denver with which a well-behaved twin machine cannot cope. From the Southwest it will be noted that the Trail to Sunset affords a direct route to the convention city via Santa Fe, Trinidad, Pueblo and Colorado Springs, and it requires no great stretch of the imagination to picture a quad of riders from points

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south of the Colorado line chugging into the Mile-High City in time for the opening of the F. A. M. program.

So much for the general possibilities of the new map as an aid to motorcyclists who wish to ride to the scene of the 1913 convention. Closer consideration of it will reveal a fund of practical information which may easily be adapted to the needs of the individual rider, or the special requirements of separate touring squads on their way to join main divisions.

The motorcyclist who is planning a coast-to-coast trip without regard for the F. A. M. convention will have his attention called to the fact that there are four main transcontinental routes open to him, the Trail to Sunset, the Overland Trail, the Midland Trail and the Northwest Trail, the last being the most recently mapped. Eventually there will probably be five distinct routes across the country, the fifth one being from the lower Atlantic seaboard states through Alabama, Mississippi, Arkansas (or Louisiana), Texas and New Mexico to Arizona, in which state it may join the Trail to Sunset. Little has been done to make this route available so far, but there are indications that it will feel the impetus of the Good Roads boom at no far distant date. When improved it will provide an ideal fall and winter line of travel to California.

THREE WIDELY DIVERGENT ROUTES.

With a view of affording the tourist a wide range of scenic characteristics and also to provide him with options that may be acted upon in keeping with the season in which his trip is to be made, the data which follows has been arranged to cover the Northwest Trail, the Midland Trail and the Trail to Sunset, traversing respectively the northern, central and southwestern tiers of states. The Midland Trail is chosen for description in preference to the Overland Trail because of the magnificent scenery which features it, and for the reason that a well-organized campaign is now under way to improve it. In addition it has the advantage of a fairly direct line of travel from ocean to ocean, being somewhat more desirable in this respect than the Overland route, which has heretofore carried the greater part of the limited cross-country traffic.

It is obvious that the Northwest Trail is suitable only for summer travel, and that owing to its more recent development it cannot be expected to afford anything like uniform conditions of travel. Late reports are to the effect, however, that the motorcycle tourist need not be balked by any of the roads on this route in good weather. It is in connection with this Trail that some of the most effective work of Pathfinder Westgard was accomplished during the last year, and it will be noted that the accompanying map gives much more detailed information than has heretofore been available for this swing through the rugged and picturesque Northwest.

The Midland Trail is suitable for spring and summer touring, but as the days shorten and sunlight becomes an asset rather than a menace the traveler will naturally turn his eyes southward to the Trail to Sunset. Thus he may range from the northern to the southwestern routes, under pressure of the seasons, and achieve a happy medium between the forbidding blasts of winter on the upper trails and the relentless blaze of the midsummer sun on the lower.

ON THE RUGGED NORTHWEST TRAIL.

The Northwest route was chosen from a careful analysis of the various possible trails from Lake Michigan to Puget Sound. It acquaints the tourist with the greatest wheat belt of the country in Minnesota and North Dakota; sheep and cattle raising, as well as copper mining, in Montana; lead mining in Idaho, and immense apple orchards and magnificent pine forests in Washington. It also affords the opportunity of visiting the two greatest gem spots in the United States, Yellowstone and Glacier National Parks, the latter not surpassed by any scenery of a similar nature in Switzerland.

Upon leaving Chicago, the route leads to Milwaukee, and traverses Wisconsin via Madison, the capital and university city, to La-Crosse, where it crosses the Mississippi River, and runs via Rochester through a rich agricultural region to St. Paul and Minneapolis. It continues northwest through Fergus Falls, crossing the Red River of the North at Moorhead into Fargo, N. D. From this city the course is practically due west through the state via Jamestown to Bismarck, the capital. Here a ferry takes the tourist across the Missouri River to Mandan. The country is now sparsely settled and the roads rougher. Some distance west of Dickinson, one enters the region known as the "Bad Lands of North Dakota," and in the very center of this basin of volcanic scoria, one crosses the Little Missouri River at Medora, either by ford or railroad bridge, according to the height of water.

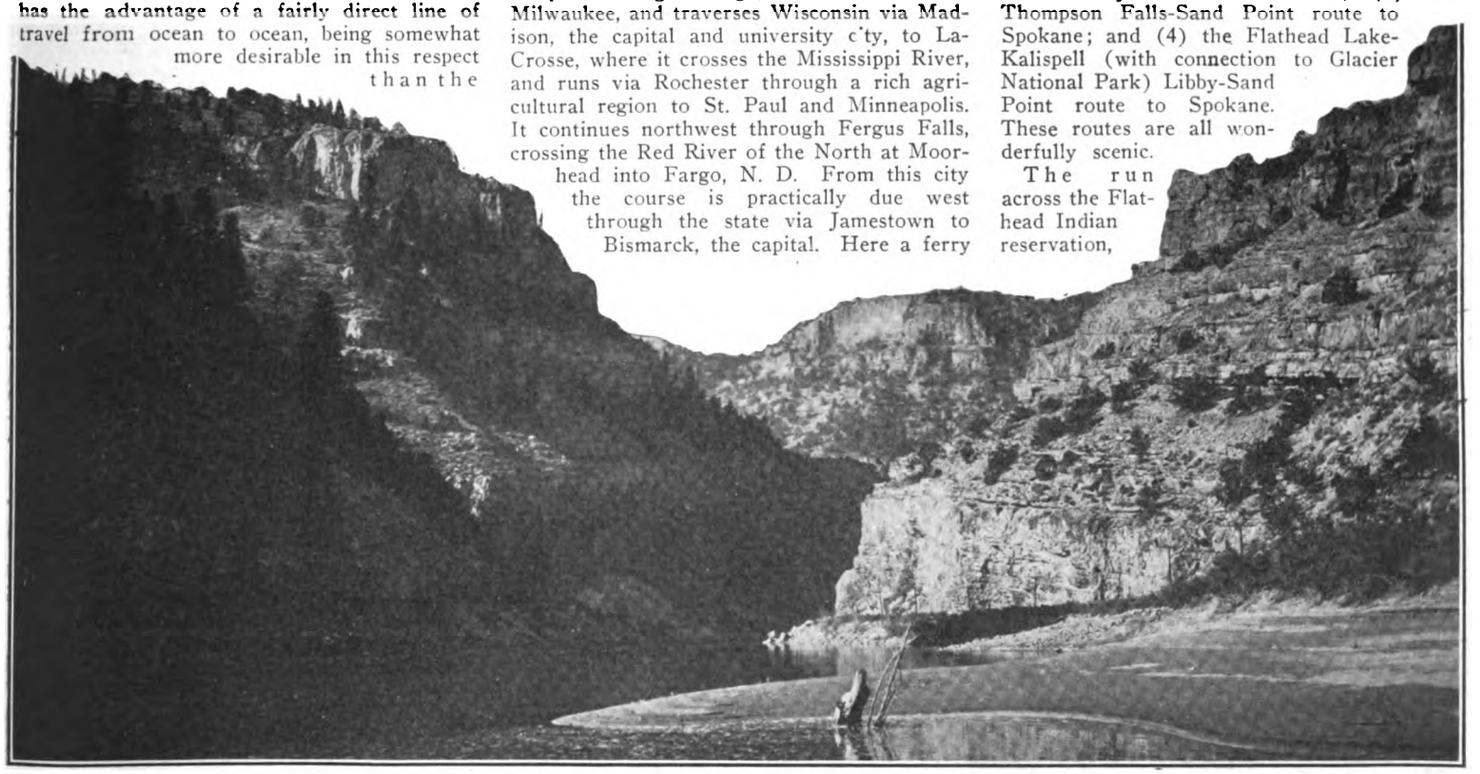
The tourist enters the valley of the Yellowstone River near Glendive, Montana, and follows that stream, occasionally crossing or recrossing it by ferry or bridge, via Miles City, Custer and Billings to Livingston. Though the good-roads movement is making progress in this region, many stretches of rough going will be encountered. From Livingston an excellent road leads the 53 miles up the Yellowstone River, with its frequent narrow gorges, to Gardiner at the north entrance to Yellowstone National Park.

At Bozeman the route enters the Gallatin Valley, famous for its fertility, and at Three Forks the tourist will note where the Gallatin, Madison and Jefferson Rivers form the source of the father of waters, the mighty Missouri. Just east of Butte, the continental divide is crossed via Pipestone Pass, at an elevation of 6,950 feet. After a visit to the copper mines in Butte, and the Washoe Smelter at Anaconda, the largest in the world, the tourist proceeds via Deer Lodge and the canyon of Hell Gate River to Missoula. It is advisable to spend a day for a run over good roads down the Bitter Root Valley, famous for its cherries, apples and other fruit.

FOUR ROUTES ACROSS BITTER ROOT RANGE.

Where in 1912 no feasible route connected west from Missoula across the Bitter Root Range to Idaho, the route development work of the American Automobile Association has resulted in at least four routes being opened for 1913 travel: (1) The direct route via St. Regis to Wallace; (2) the Thompson Falls-Murray route to Wallace; (3) the Thompson Falls-Sand Point route to Spokane; and (4) the Flathead Lake-Kalispell (with connection to Glacier National Park) Libby-Sand Point route to Spokane. These routes are all wonderfully scenic.

The run across the Flathead Indian reservation,



An Impressive View in the Grand River Canyon, Colorado, a Forceful Inducement to "See America First."

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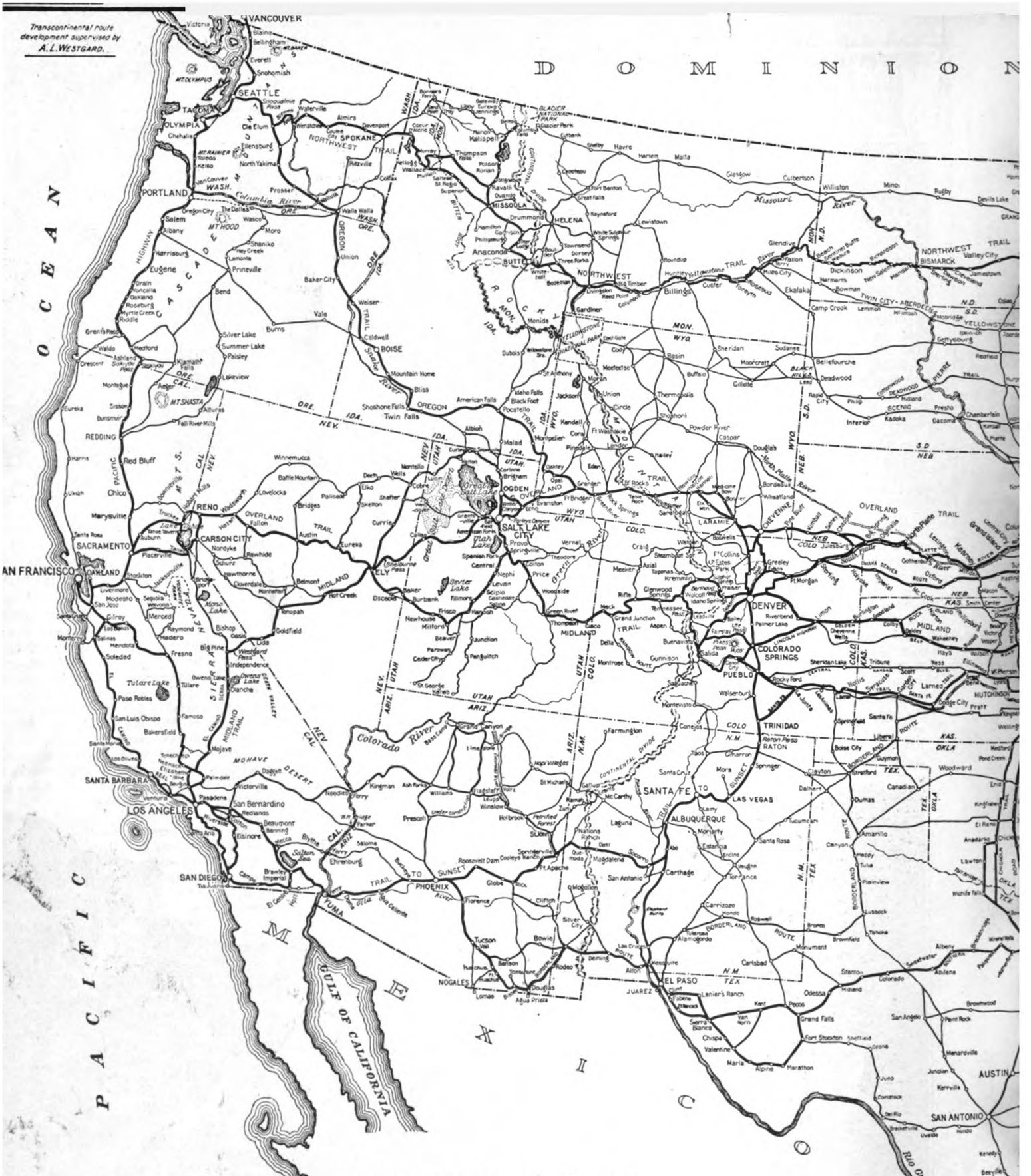

GENERAL MAP OF TRANSCONTINENTAL ROUTES

WITH PRINCIPAL CONNECTIONS

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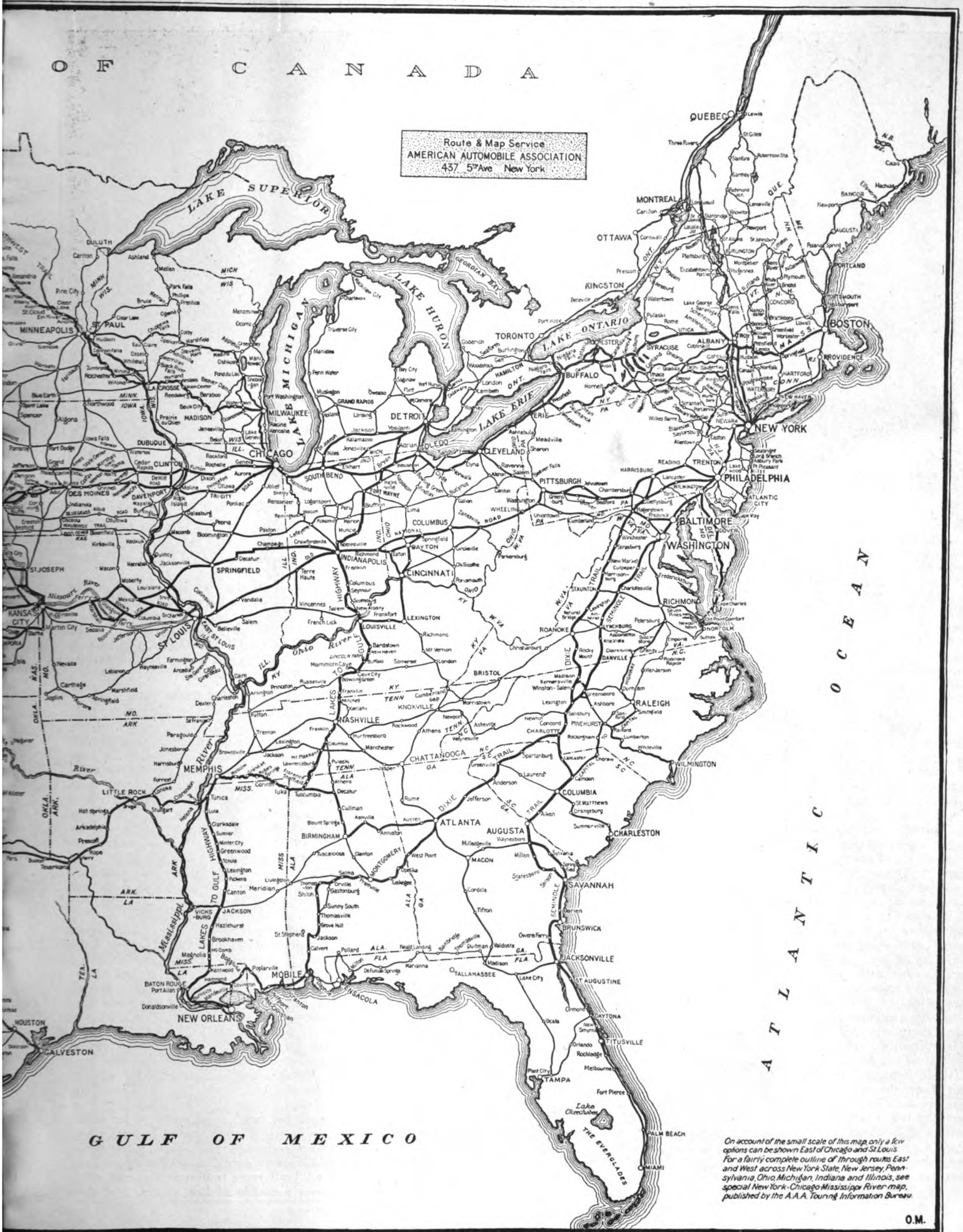

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Scene on Flathead Indian Reservation in Montana.

dotted with tepees, and along the shores of Flathead Lake to Kalispell, will prove very interesting to tourists. From Kalispell across the fertile plain to the foot of Kootenai Range, and along the gorges of the Flathead River a good road leads to the foot of McDonald Lake in Glacier National Park.

At Wallace, Idaho, the tourist is in the heart of the great lead-mining section. He proceeds from here through the Fourth of July canyon and along the shores of Coeur D'Alene Lake to the city of the same name, whence there is only a short ride over "The Great Apple Way" to hustling Spokane, the "Queen of the Inland Empire." Upon leaving the system of fine macadam roads some 25 miles west of Spokane and especially if the season is dry, the tourist plows through 70 miles of deep dust, of a volcanic nature, to Coulee City.

Through Grand Coulee and Moses Coulee the road is better to Waterville, and enters the valley of Columbia River through Coberly Canyon. From Wenatchee, located in the heart of a region of great apple orchards, the route leads up the Wenatchee River and Peshastin Creek via Blewett Pass over the Wenatchee Mountains. This Pass is very rough with some very steep pitches.

Emerging from the Pass, the going is good in the valley of the Yakima River through Cle Elum and excellent through Easton to Lake Keechelus. A new state road is being built along the east side of the lake, but if not finished the tourist will find a good ferry available. From the north end of the lake begins the ascent of Snoqualmie Pass through the Cascade Range. The ride up this steep pass and down the other side will long linger in memory both by reason of its execrable road surface and beautiful scenery. The route crosses at an elevation of 3,127 feet, and traverses a primeval forest, untouched by fire or axe, where towering pines of prodigious girth shut out every ray of sunlight. Miles of rotting corduroy make the going slow and precarious, but better conditions are promised in the near future, as improvements are scheduled. From the foot of the Pass to Seattle are all good roads.

FOLLOWING THE MIDLAND TRAIL.

It must be admitted that as a transcontinental route the Midland Trail has heretofore been an entirely unknown quantity, but it bids fair to rival if not outstrip all its competitors by reason of the strong efforts put forth by the Midland Trail Association, an organization formed for its improvement, with headquarters at Grand Junction, Col.; and also for the reason that it pierces the Rocky Mountains in a region offering the most magnificent scenery. In addition, it is the shortest of all the standard routes.

Unlike its rivals, which connect at Chicago with the many good routes from the Atlantic Coast, the Midland Trail connects at St. Louis with the historic old National Highway via Terre Haute, Indianapolis, Columbus, Wheeling, Pittsburg, Philadelphia and New York, or Cumberland, Baltimore and Washington. Its old historic association remains through Missouri, where it follows the Boon's Lick Trail and the old Santa Fe Trail to Kansas City, marked through the state with red, white and blue bands on telephone poles.

From Kansas City it follows the Golden Belt Route, marked with yellow bands on telephone poles and fence-posts, traversing the state of Kansas via Topeka, Abilene, Salina, Hayes and Colby to Burlington and Limon, Colo. So far the roads may be characterized as good, when dry. Two options are available between Limon and Wolcott, one called the "Lincoln Highway," marked with red, white and blue bands, via Colorado Springs, Canyon City, Buena Vista, Leadville, across the Tennessee Pass (10,000 feet elevation), and over the Rocky Mountains to Wolcott; the other via Denver, Golden, Idaho Springs, across the Berthoud Pass (11,000 feet elevation), over the Rocky Mountains, and via Fraser, Kremmling, Gore Canyon and State Bridge to Wolcott.

From Wolcott the way is via the splendid canyon of the Grand River, Glenwood Springs, Rifle and Debeque to Grand Junction, a beautiful ride all the way. Grand Junction, at the confluence of Grand and Garrison Rivers, is located in an irrigated valley famous for its peach and apple orchards.

IMPROVEMENTS UNDER WAY.

West of Grand Junction, via Mack, Col., and Cisco, Utah, Green River, Woodside, Price, and Provo, the route has up to this time been very difficult for motor touring, but the states of Colorado and Utah have combined upon a program of improvement from Denver to Salt Lake City along this route, which guarantees that it will be open for traffic with reasonable comfort all the way by July 1, 1913, and continual improvements effected until it will be in splendid shape throughout. Being a most scenic route all the way from Denver to the Mormon Capital, it will no doubt draw a large proportion of future transcontinental traffic.

Four different options have been surveyed through the desert section, between Salt Lake City and Ely, Nev. Though the interested authorities have not yet made a final choice of the route to be scheduled for improvement, it is probable that a choice will be made during the summer of 1913. In the meantime all the optional routes have rough stretches, though entirely feasible with the exercise of ordinary care. No doubt the Overland and Midland Trails will coincide over this stretch. Inquiries should be made in Salt Lake City, during 1913.

Around Ely are located many copper mines which will prove interesting to tourists. Unlike the Overland Trail, which in traversing Nevada crosses many mountain ranges, the Midland Trail veers southwesterly; and while it crosses a couple of low ranges, it dodges

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around the base of most of them. It affords uniformly good natural surface conditions, mostly disintegrated granite. Tonopah is an active silver mining "camp" and Goldfield a gold mining "camp," though these so-called camps are really towns. From Goldfield the route leads via Lida and across the California State Line into Deep Spring Valley. The going is still uniformly good across White Mountains through Westgard Pass into Owens River Valley, with magnificent views of the Sierra Nevada Mountains towering precipitously just across the valley floor.

At the town of Big Pine, where the Midland Trail joins the El Camino Sierra route, it splits into two branches. One leads north via Bishop and Bridgeport, and at Lake Tahoe joins the Overland Trail on its way via Placerville to Sacramento and San Francisco. The other branch leads south through Owens Valley, skirting the very base of the Sierras, with Mt. Whitney towering above them all. It passes Owens Lake and for many miles parallels the Los Angeles aqueduct. It edges the Mojave Desert, and via Mojave, Palmdale, and Mint Canyon connects at Saugus with the magnificent road into Los Angeles. The Midland Trail is truly a scenic route.

THE PICTURESQUE TRAIL TO SUNSET.

The route of the Trail to Sunset has been carefully and deliberately chosen from a strictly touring standpoint, offering varied scenery and numerous points of historic interest. Starting at Chicago, the great meeting place of travel from the Eastern States, it traverses Illinois on good gravel roads to the Mississippi River, crossing same into Davenport, Iowa. From Davenport to Omaha it uses the River-to-River Road, graded and marked with a white band on telephone poles throughout its length.

Leaving Omaha, the route swings southward in the Missouri River Valley to Kansas City, where it enters the historic Santa Fe Trail, following same for the most part across the entire length of Kansas.

From La Junta, Cal., the route strikes southwest through the southeast corner of Colorado, still following the Santa Fe Trail to Trinidad, thence across the beautiful Raton Pass into New Mexico.

It follows closely the A. T. & S. F. R. R., and, still on the Santa Fe Trail, through Las Vegas to Santa Fe, traversing large cattle ranges and passing Mexican adobe houses and Indian pueblos. From Santa Fe to Albuquerque the route goes through several Indian towns. At Albuquerque two options to Springerville, Ariz., are available. The best road surface will be found at present on the route leading south from Albuquerque and crossing the Rio Grande at Socorro, thence west via Magdalena, San Augustine Plains, Datil Mountains and Rito Quemado to Springerville. But the most picturesque route crosses the Rio Grande at Albuquerque and leads west, necessitating the fording of the treacherous Rio Puerco, to the Indian pueblo of Laguna. Some miles beyond, at the small station of McCarty, the tourist will leave the railroad, not seeing it again for several hundred miles.

Travelers along this route now enter a country until two years ago practically unknown to tourists, but affording some of the most unusual scenery in the United States. The route is very rough and passes malapais (lava) beds, and skirts towering, many-colored sandstone cliffs. It touches the Laguna Salina de Zunia Lake, so penetrated with salt that it is asserted no one can sink in it. From the Mormon settlement of Springerville, Ariz., the route traverses the White Mountain National Forest, crossing the plateau of the White Mountain, 9,000 feet above sea level.

A visit is made to Fort Apache, a cavalry post of the United States Army, and then the route leads across the Natanes Mountain range, dipping into the desert near the Gila River at Rice in the San Carlos Reservation. It passes through the copper mining town of Globe, and thence over the magnificent state road leading via the famous Roosevelt Dam and down the splendid Salt River Canyon, dotted with giant cactus, to Phoenix, the capital of Arizona.

Between Phoenix and Los Angeles two routes are available; both are shown on the accompanying map. One leads the tourist via Yuma and San Diego, and the other is known as the Phoenix-Ehrenburg-Mecca route. The former route is 150 miles longer than the latter, but the roads are better and plans are under way for improving them still further.

MORE ACTIVITY NEEDED.

F. A. M. state commissioners throughout the country have recently received from Secretary G. B. Gibson copies of a circular letter requesting a broader spirit of co-operation and greater activity than have marked state operations in the past. State commissioners are invited to communicate with the secretary and to offer any suggestions possible relative to the development of Federation interests in their territory. The letter also calls attention to a recent decision of the F. A. M. Board of Directors that all printing of the organization shall be done under the supervision of Secretary Gibson. This action has been taken to standardize the stationery and simplify matters for the state officials. Some time in June each commissioner will receive from the secretary the credentials for the delegates to be sent from his state.

MY OLD CHUGGER.

OLD Squire Brown sez life's a fizzle, an' the things we most enjoy all are empty as a bubble. "Sure's you're born," sez he, "my boy. Things we need are someone else's —what we have ain't worth a durn, 'ceptin' fer to bring us trouble, an' we've sure got that to burn. Misery's our next-door neighbor, war an' famine may be near, so you can't blame me fer statin' life is empty—yessiree, an' drear!" Them's his words, but I ain't quakin—I can snicker, same as you—while I've got my good old chugger an' a kindly friend or two."

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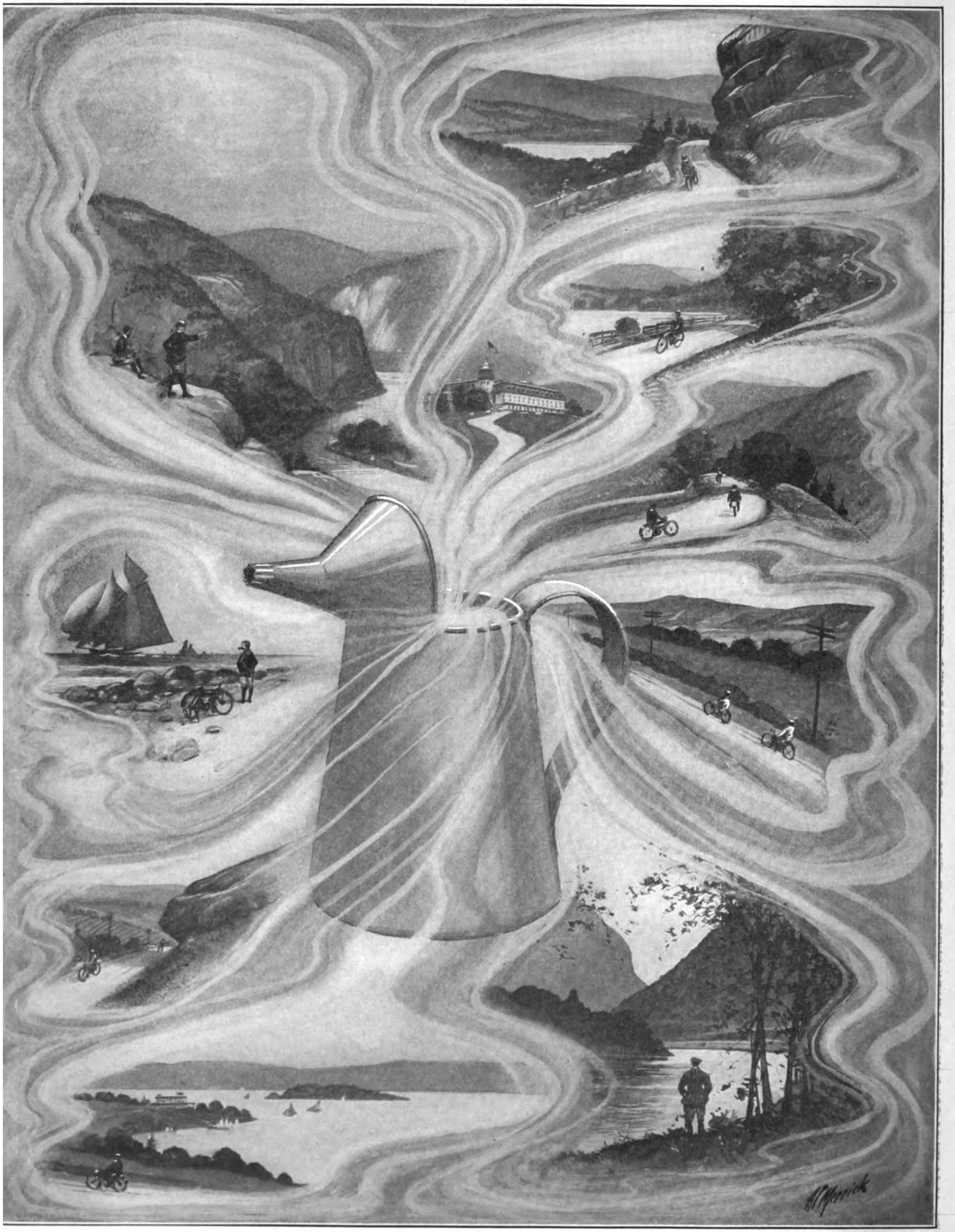

ALL IN A GALLON OF GASOLINE.

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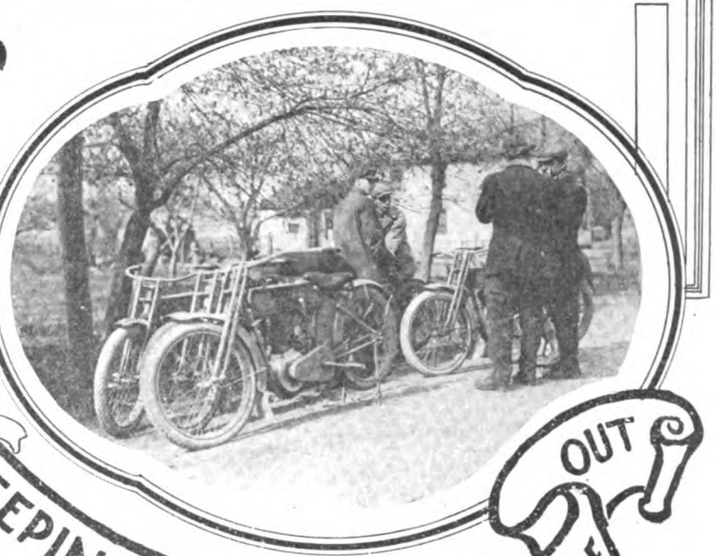
TIRES

The Timely Tipster

A FEW HINTS ON KEEPING THE AIR IN & TROUBLE OUT



ON returning from a Saturday afternoon jaunt into the country last week I decided to ride around to our club headquarters with a view of lining up a few of the boys for a run on the following day, and I was rewarded by finding half a dozen riders draped over their machines in divers grotesque postures at the curb in front of our official stamping-ground. When I was still fifty yards distant I became aware that an argument was under way, and as I pulled up beside the group one of the seasoned roadsters turned to me a bit excitedly with the greeting: "You're just in time to help me impart a little useful information to this gang. I've been telling them that their tire troubles——"

"Halt and give the countersign," I interrupted, raising a pacificatory hand. "I don't want to argue about tires. All I want is a promise that some of you folks will be on deck to go out with me tomorrow for a——"

"That'll come later," broke in the seasoned roadster. "But before we talk about anything else I want you to back me up in saying that fifty per cent. of all tire troubles are due to improper inflation. I made a remark to that effect a short time ago and this collection or barbarians fairly landed on my neck. What about it—am I right or wrong?"

"You're wrong," I answered. "You should have said that at least seventy-five per cent. of all tire troubles are creditable to careless inflation."

The veteran turned to the group with a satisfied smile. "I knew I had the right dope," he exulted, "for I have been poling up on tire information of late, and I notice that most of the prominent manufacturers credit at least fifty per cent. of all tire dissatisfaction to under-inflation. If a rider insists upon using his tires when they are so soft that they flatten noticeably under the load he is getting in line for trouble. I know that from personal experience. Why, it stands to reason that a soft tire is subjected to more kneading and twisting and grinding than it is ever intended to withstand, and if that sort of thing is continued for a short time it is certain to play havoc with the casing.

"What's more," continued the veteran, "no rider can guess at when his tires are pumped up to the proper pressure. He must use a tire gauge. He can prod the casings with his thumb and thump them with the heel of his shoe until dooms day and he won't have anything but a vague idea of the pressure. But a good tire gauge will do the trick in a few seconds, so there is really no excuse for taking chances. More than once I have been ready to swear that my rear tire held a pressure of fifty or fifty-five pounds when as a matter of fact the pressure was less than forty-five pounds. If I had ridden with the tire in that condition I would have been borrowing trouble.

"I find that the proper pressure for a 2½-inch tire is fifty pounds, and that sixty pounds is required for a 3-inch casing. In other words, the pressure should be twenty pounds to an inch of tire. Many tourists who subject their tires to the hard going of country roads never give a thought to the matter of inflation as long as the rim does not bump the ground. Is it a wonder that we hear them growling about tire mileage? The trouble is not with the tires, but with their users in nine cases out of ten.

"While I was over in Pennsylvania last summer," went on the veteran, warming to his subject, "I saw a motorcyclist bumping along on a rear tire that let the rim down hard every time an inequality in the road was encountered. We happened to pull up at the same garage and I made it a point to examine his rear casing. It was in awful condition, and the worst was yet to come. I asked him why he did not pump the tire up to the proper pressure and he replied that he could not see the use in buying pneumatic tires if they were to be pumped 'as hard as a stone.' And he is not the only rider who feels that way about it, unfortunately."

REGULAR TIRE INSPECTIONS.

"I can't help agreeing with all that has been said," I remarked, "and while we are on the subject of tires I am going to offer a suggestion or two myself. Assuming that the rider starts the season with his tires in good condition there is no reason why he should have any trouble with them. He should be careful in the beginning to have tires large enough to meet his requirements. I advise the use of a 3-inch tire on the rear wheel and a 2½-inch casing in front. With this equipment the rider may be certain that he will not overload his tires, and all that is necessary is proper inflation and regular inspections.

"The inspections are needed to guard against small cuts being enlarged to the point where they cause serious trouble, and to permit the rider to make little repairs from time to time. If a motorcyclist will examine his tires, say every week, he should be able to head off road trouble and heavy bills. It is cheaper to doctor tires than to buy new ones. I find, too, that it pays to follow the advice of the tire manufacturers concerning the use of soapstone or talc. There is considerable friction between the casing and the inner tube, especially on a long continuous run, and soapstone—acting as a rubber lubricant—will do much to relieve this. It should be used moderately, but it is a good plan to keep some between the cover

A YOUNG FLORIDA RIDER.

HORACE CLARK, a member of the younger squad of motorcyclists of Green Cove Springs, Fla., is shown in the accompanying photograph on his 1913 twin Harley-Davidson. Clark writes that he makes many long trips over the sandy roads of Florida, but has little or no trouble in negotiating them.

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and the inner tube at all times. It's good policy."

"Right you are," agreed the veteran, "a little soapstone inside the casing is as beneficial as a little road grit is harmful. Let us keep the latter fact in mind as well as the former. A few grains of sand, or small particles of road crust will cause all kinds of trouble if permitted to creep in between the casing and the inner tube. For this reason too much care cannot be taken in replacing a tire after road repairs. The rider should be certain that there is absolutely no foreign matter in the cover before it is put on.

"It is not the occasional puncture that disgusts a motorcyclist with his tire service," continued the old roadster, "but the gradual breaking down of the whole casing in such a way that there is nothing to do but throw it on the scrap heap. This breaking down is directly traceable to neglect on the part of the rider. Instead of waiting for serious tire troubles the rider should attend to the little ones and the breaking down process will be indefinitely delayed.

"Tires should be kept away from heat and oil; these are deadly enemies of rubber and will help to undermine the strength of the casing. Care should also be taken to see that rims are in good condition, as if they are bent and dented they are often responsible for rim-cutting of the tires. I don't say that the tips we have given you will meet all tire emergencies on the road," said the veteran, turning to the little group of doubters, "but they'll help some if you observe them carefully. Buy tires large enough, keep them pumped hard enough and inspect them often enough and you'll come mighty close to solving the mileage problem."

Goodyear Tire & Rubber Co., Akron, Ohio. (Goodyear tires.)

B. F. Goodrich Co., Akron, Ohio. (Goodrich & Diamond tires.)

Continental Rubber Works, Erie, Pa. (Continental-Erie tires.)

Kokomo Rubber Co., Kokomo, Ind. (Kokomo tires.)

A. Schrader's Son, Inc., 30-32 Rose street, New York City. (Schrader Universal tire pressure gauge.)

United States Tire Co., New York City. (United States tires.)

Pennsylvania Rubber Co., Jeannette, Pa. (Pennsylvania oilproof vacuum cup tires.)

Voorhees Rubber Co., 1846 Bostwick avenue, Jersey City, N. J. (Brown scientific non-deflating pneumatic tubes.)

Motorcycle Tire Jimmey Co., Yorkshire, Ohio. (Motorcycle tire jimmey.)

American Tire & Rubber Co., 1229 Michigan avenue, Chicago, Ill. (American Extra Mileage motorcycle tires.)

Brictson Mfg. Co., 2513 Brictson Building, Brookings, So. Dak. (Brictson non-skid, puncture-proof detachable treads.)

Federal Rubber Co., Milwaukee, Wis. (Federal tires.)

Weed Chain Tire Grip Co., 28 Moore street, New York City. (Weed anti-skid chains.)

J. W. LONG, of Bowling Green, Ohio, has taken the agency for the Harley-Davidson.

Newarkers Ready For Two-Day Run

ARRANGEMENTS for the two-day endurance run of the New Jersey M. C., of Newark, are about complete. Leaving Newark at 5:30 a. m. on May 30, the riders will proceed to Delaware Water Gap by way of Hackettstown, a distance of 70 miles. The run continues from the Gap over Mt. Pocono to Scranton, where the riders will make an hour's stop for lunch and then proceed to Waverly, Lennox and Binghamton. After a short stop at this point the party will continue to Unadilla, 44 miles distant. The night control is located in this town, arrangements having been made for accommodations at the Griffin Hotel.

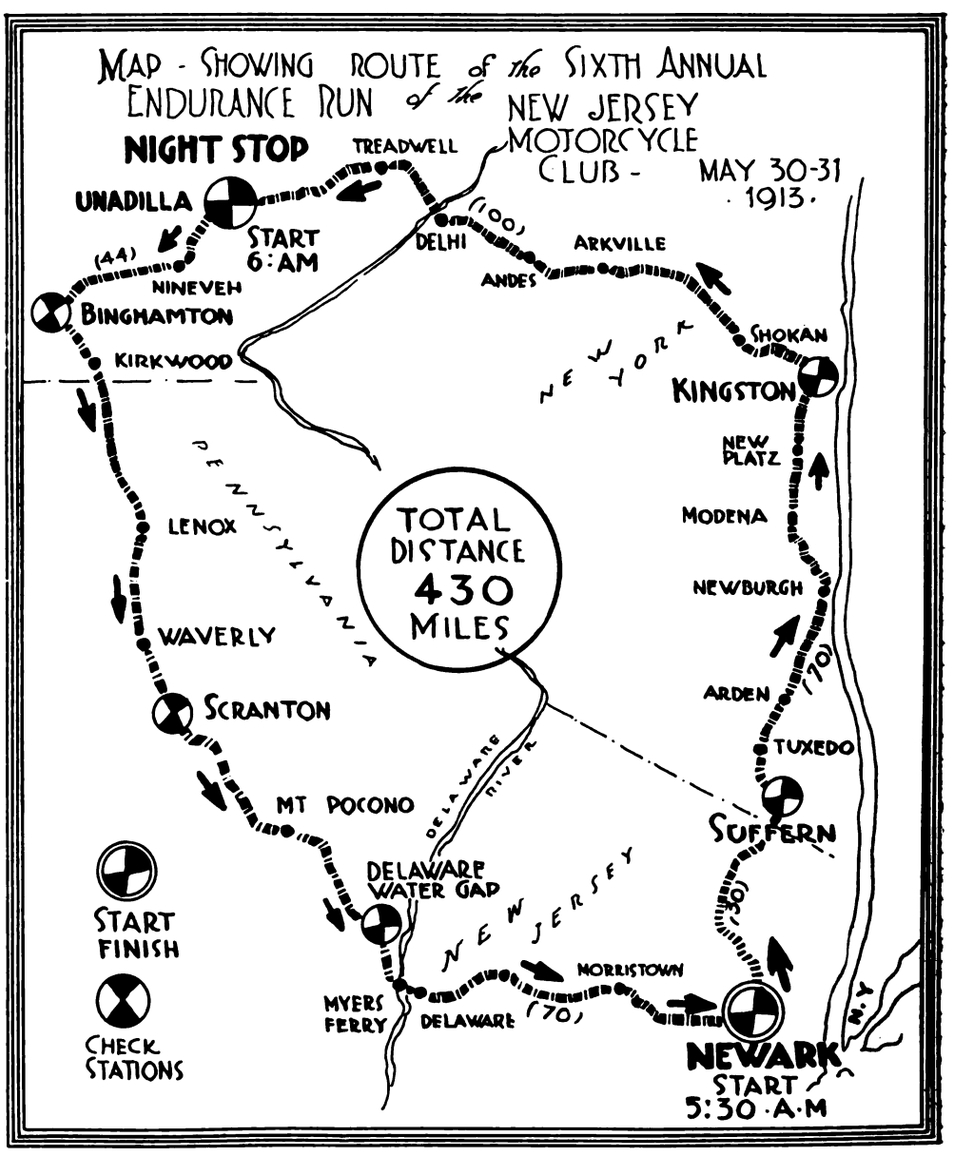
Starting at 6 a. m. the next morning the contestants will begin the hardest stretch of the run, which is over the 100-mile course to Kingston. Not less than 75 miles of this stretch is over dirt roads, seldom used for anything but farm trucking. From Kingston the route passes through Newburgh and Tuxedo to Suffern, 70 miles to the south. Leaving Suffern the riders will make the last leg of the run to Newark, a distance of 30 miles from Suffern. They are scheduled to reach Newark at 4:30 p. m.

With the exception of the 75-mile stretch of poor roadway between Unadilla and Kingston the run should prove ideal. The trip will be made regardless of weather conditions. Checking stations will be located at Hackettstown, Scranton, Binghamton, Unadilla, Kingston and Suffern.

The chief prize offered for the run will be a silver loving cup, 16 inches high, donated by T. C. Cornish, Newark Yale agent, as a manufacturer's trophy. Teams of three riders each, representing the Indian, Yale, Merkel, Excelsior, Harley-Davidson, Emblem, Pope and Henderson machines, will compete for this trophy. The Yale team, piloted by Wilmer Stevens, the club's crack endurance plugger, has won the trophy for the last two years.

BILLY ROSE AT WORK

WILLIAM ROSE, or, as he prefers to be known, "Wild Billy" Rose, the motordrome artist, of Savannah, Ga., opened his season with the Herbert A. Kline show at Flint, Mich., on May 10. His itinerary includes the Northwest, Canada and the Pacific Coast. As in previous years, Rose will ride an Indian in his whirls on a small saucer.



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Fifty-Four Riders Finish Double-Century on Time

Invincibles Lead Eighty-Four Aspirants for Endurance Honors Out of Brooklyn, But Thirty Fall Behind the Schedule—Minor Spills Enliven Run on Long Island, But No One Is Seriously Hurt.

BROOKLYN, N. Y.—The second annual double century run of the Invincible Motorcycle Club was held Sunday, May 4, over Long Island roads. The route led from Bedford Rest, Brooklyn, via the Merrick Road, to Southampton, where the first checking control was located. From Southampton the route led back to Quogue, then across Long Island to Riverhead, where the dinner stop was made. The return journey was laid out along the North Shore, with checking stations at Port Jefferson and Jericho.

Early Saturday evening riders from New York, New Jersey and Connecticut assembled in the Invincible Club rooms, where the final details of the run were passed upon. Horace E. Stout, second lieutenant of the run, sprang a surprise on the riders when he explained the checking system. Automatic time clocks were located at every checking station, thus insuring an absolutely correct record of each rider's time.

Promptly at 6:30 Robert F. Graves, checker at Bedford Rest, mustered out the riders, and Fred H. Chase, official referee, started the boys on their long trip. Five teams were entered, as follows: Indian, Harley-Davidson, Excelsior, Reading-Standard and Thor. None of the teams had a perfect score, as one or more of the riders in each squad failed to check in at the controls on schedule time.

Eighty-four riders left Bedford Rest, eighty in the amateur class and four in the professional ranks. The professionals had a time schedule which was set ten minutes behind the amateurs. Among those who left Brooklyn on the long grind for the little gold medal was Miss Frances Loeb, of New York City. This young lady was mounted on her tourist two-speed Indian, which had been tuned up for the occasion. Unlike last year, when she lost her way, she skilfully piloted her machine over nearly half the trip. She had a nasty spill near Center Moriches which delayed her at the Southampton control, and caused her to lose her perfect score. Miss Loeb was not hurt, and the only damage to the machine consisted of a broken lamp.

Snapped during the luncheon stop; everybody in good humor.

Two sidecars were entered; one driven by Walter Ginger, with G. P. Jenkins and his dog "Sport" as passengers, had an exciting time. "Sport" has had the distinction of covering three double-century endurance runs, which is the long distance "canine" record in the East.

The other sidecar was an Indian, driven by Irving Barnard, with Oscar Brandt as passenger. This pair managed to reach Patchogue, but had to discontinue the trip at this point, due to mechanical trouble.

Some difficulty was experienced in awarding the special prize to the rider having the best score, at the finish, as a number of the riders received almost identical scores.

The competition committee finally awarded the prize to O. P. Warlick, who was only one minute late at one control. J. U. Constant, Indian; Leslie Vine, Excelsior, and William Hetherington, Jr., Indian, received credit for varying only two minutes from the schedule throughout the run.

The list of riders and machines that finished on schedule time follows: E. W. Allen, Excelsior; J. H. Abrams, Marsh-Metz; W. S. Blockston, Indian; Jos. Buckingham, Harley-Davidson; P. M. Boshen, Excelsior; A. C. Boshen, Excelsior; J. W. Breiver, Indian; J. Beveridge, Merkel; G. W. Barnes, Jr., Excelsior; C. R. Burbank, Pope; A. F. Baker, Harley-Davidson; J. U. Constant, Indian; Fred Cordex, Indian; John Cox, Indian; C. Corbin, Jr., Peugeot; J. C. Cartone, Indian; William Dill, Thor; Chas. J. Davis, Indian; A. H. Eocholz, Indian; Michael Enello, Marsh-Metz; J. H. Gest, Indian; Walter Ginger, Marsh-Metz; Frank G. Hart, Indian; William G. Hamburger, Harley-Davidson; William Hetherington, Jr., Indian; J. H. Hazenbush, Indian; S. W. Hanna, Indian; G. P. Jenkins and dog "Sport," Marsh-Metz; Gus Koster, Indian; Harry Kruse, Indian; P. N. Layton, Jr., Excelsior; Edward McClintock, Excelsior; Charles Meyer, Jefferson; J. A. McKeever, Marsh-Metz; G. G. Nason, Indian; Edward H. Olley, Indian; August Rust, Thor; A. J. Rochow, Indian; A. Roualet, Reading-Standard; John Steele, Indian; Orie Steele, Indian; G. T. Stadt, Eagle; Horace E. Stout, Pierce; Otto Shofer, Indian; Howard Skinner, Schickel; C. V. Smith, Indian; Carl Smith, Thor; W. F. Stubner, Pope; Max Silberman, Thor; Harvey Snyder, Indian; Leslie Vine, Excelsior; J. A. Vacareza, Thor; O. P. Warlick, Indian; F. C. Zukschwerdt, Thor.

Invincible squad replenishing tanks at a control.

THE Ellis Bicycle Company, Pope distributor in Wichita, Kan., has moved to its new quarters at 151 Market street. The Ellis company now has double its former floor space.

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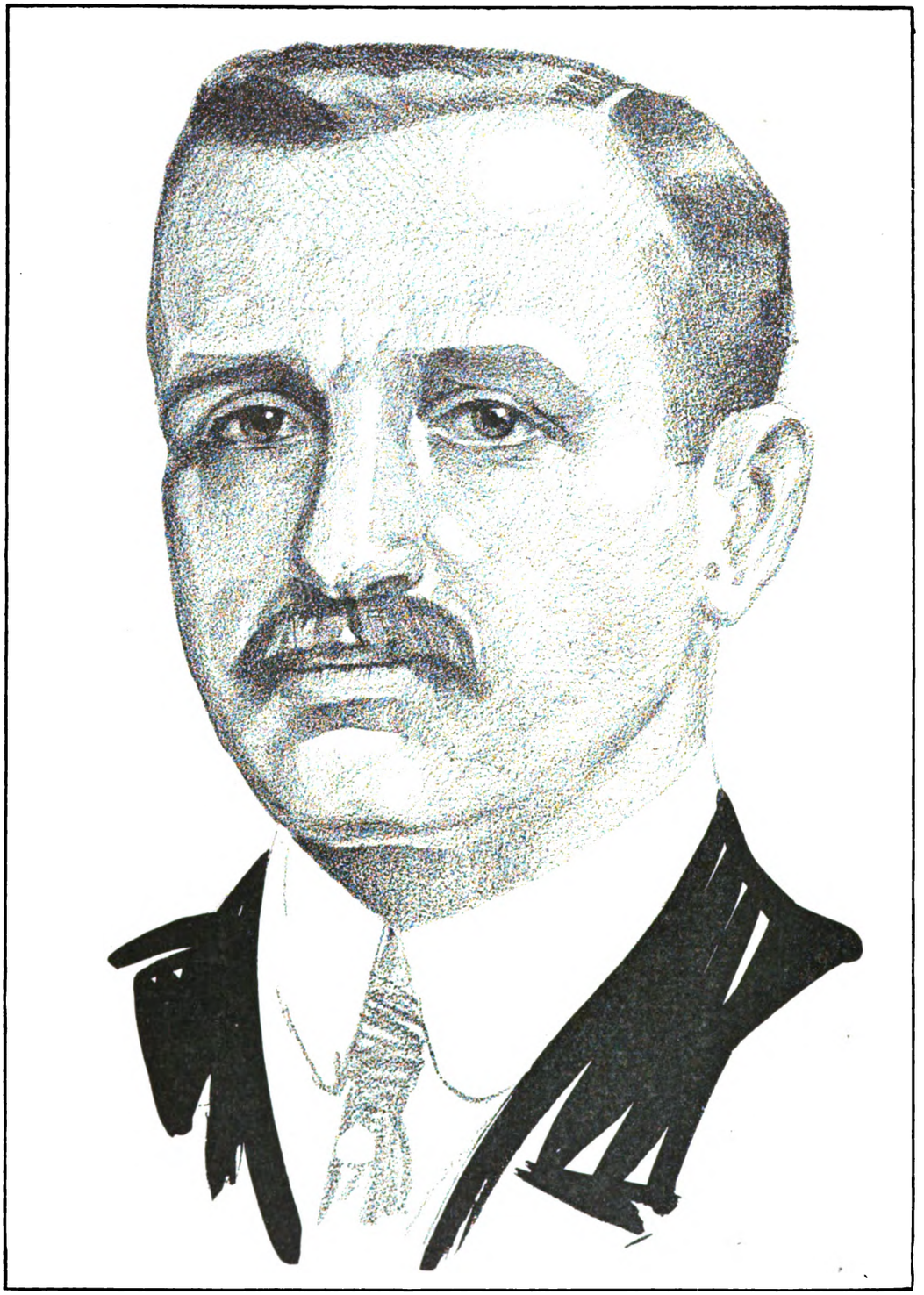

HENRY MESINGER

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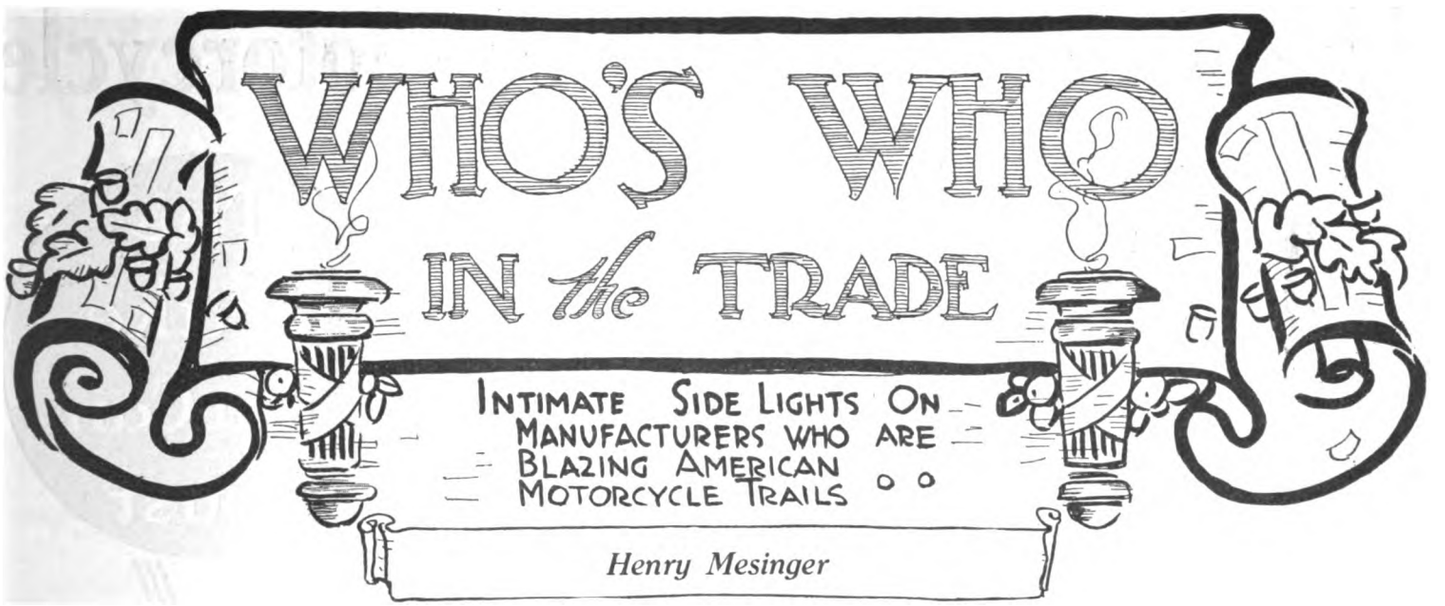

FEW men who are participating in the development of the American motorcycle field today are in a position to narrate more interesting life stories than Henry Mesinger, senior partner in the H. & F. Mesinger Manufacturing Company, the saddle makers. That comparatively little is known of the interesting stages by which Mr. Mesinger has progressed to his present standing in the manufacturing field is due to his natural reticence, and to the fact that he has been too busy achieving said interesting stages to find leisure for discussing them. For the same reasons Mr. Mesinger was a bit backward about furnishing data for the Editor of the "Who's Who in the Trade" Department, and this accounts for the brevity which marks the following paragraphs.

The energetic saddle manufacturer claims Rhineland, Germany, as his birthplace. He was born in 1866, and for the usual number of years devoted himself to the usual occupations of the usual boy. Later a tendency toward the unusual began to manifest itself, the symptoms being a studious turn of mind and a remarkable gift for untangling knotty engineering problems. He devoted himself to structural engineering and in 1885 left Germany for Brazil, where he engaged in bridge and railroad construction for a number of years. Later he spent three years in Buenos Ayres engaged in structural work.

A START IN THE SADDLE BUSINESS.

In the meantime Mr. Mesinger's brother Frederick had taken up horse-saddlery in Germany. The brothers had kept in communication with each other, and they decided at length that saddle-making was a business worthy of their best efforts. It was not until 1889, however, that Frederick sailed for America with a view of continuing his profession. Prior to this move he had devoted two years to saddle-making in London, where he gave the finishing touches to his experience under the tutelage of the master saddlers of England. On arriving in America in 1889 he was joined by his brother Henry, but not at once were their business plans launched. The brothers followed their individual vocations for two years, but managed to keep closely in touch with each other, and in 1892 they started the manufacture of horse saddles, bicycle tool-boxes and touring-bags.

At about this time they designed the first bent-wood bicycle frame, of which only one model was turned out, as the difficulty experienced in popularizing the type did not justify its manufacture. The next product of the firm was the Mesinger rattan saddle, which was placed on the market in 1895. At the outset of the business only two boys were employed, but one year later the payroll showed a total working force of over 300 men. In 1896 the business was incorporated as the Mesinger Saddle Company, but in the next year the Mesinger brothers resigned from that corporation, which was shortly afterward forced into the hands of a receiver.

ORGANIZATION OF THE NEW COMPANY.

Henry and Frederick then formed the H. & F. Mesinger Mfg. Co., and devoted all their energies to perfecting a new bicycle saddle. In 1901, simultaneously with the production of the first motorcycle in America, the Mesinger brothers built the first American motorcycle saddle. The Harley-Davidson, Marsh and Merkel machines were the first to use this Mesinger product. In 1903 the first Cavalry saddle was placed on the market, and its hand-padding feature made an immediate appeal.

From this time on the company was kept busy developing its plant in order to be abreast of the demands for its products, and this policy of rapid expansion has been continued to the present day. One of the latest bulletins from the busy headquarters of the Mesingers is to the effect that still another extension is planned and that it will be started without delay. Henry Mesinger is still a good structural engineer, but his friends insist that he is now a better saddle-maker, so it is unlikely that structural projects in picturesque but remote countries will ever again win a second of his interest.

"Almost any good engineer can build a bridge," says the redoubtable Henry, "but saddle-making is a fine art. If you don't like the feel of a bridge you can stay off, but once you buy a motorcycle saddle you want to stay on. Therefore it's important that every piece of work turned out be a good one. Let the other fellows build bridges—I'll look out for the saddles."

PITTSBURGH PRESS MEET

A RACE meet was held at Schenley Oval, Pittsburgh, by the Pittsburgh *Press*, on May 10. The weather was fine and no less than 40,000 people turned out: Summaries:

Five-mile novice, stripped stock machines.—Glenn Wheaton (T. Y. P.), Youngstown, O.; Sam J. Martin (Indian), Pittsburgh, and Ade Weixel (Pope), Pittsburgh. Time, 6:28.

Ten-mile open, racing machines.—A. G. Schmidt (Indian), Pittsburgh; Charles Seitz (Thor), Allegheny, Pa., and Richard Beacon (Harley-Davidson), Pittsburgh. Time, 12:32⅗.

Five-mile open, stripped stock machine, no ports.—Carl C. Kaiser (T. Y. P.), Youngstown, O.; John Ponti (Indian), Canton, O., and George A. Black (Reading-Standard), Pittsburgh. Time, 6:41⅗.

Five-mile open, racing machines.—A. G. Schmidt (Indian), Pittsburgh; Carl C. Kaiser (T. Y. P.), Youngstown, O., and Charles Seitz (Thor), Allegheny, Pa. Time, 6:15⅕.

Twenty-five-mile open, racing machines.—Charles Seitz (Thor), Allegheny, Pa.; Carl C. Kaiser (T. Y. P.), Youngstown, O., and John Ponti (Indian), Canton, O.

NO COUNTERFEIT CARDS

FROM the office of the F. A. M. Competition Chairman comes the announcement that referees will hereafter be called upon to adhere strictly to the rule which provides that riders must produce their Federation membership cards before participating in a race. In the past a few speedsters have "put something over" on the referee by claiming that their cards had been left at home, or by using the card of another rider who was a member in good standing.

If there is any question now as to a rider's membership standing he will be compelled to take out a new membership and pay his fee before starting; then if it is shown later that he really did possess a paid-up card when he appeared for the race he will have the second membership fee refunded by the referee.

JAMES SUYDAN, formerly manager of the St. Paul (Minn.) branch of the Goodyear Tire & Rubber Co., Akron, has been appointed manager of the Wisconsin branch.

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The Proudest Boast of Motorcycle

ECLIPSE

MANUFACTURERS "ECLIPSE EQUIPPED"

The Brake You Can Trust

Wise manufacturers give prominence to the fact that their machines are **ECLIPSE EQUIPPED**. The presence of **ECLIPSE EQUIPMENT** adds prestige to their product.

The **ECLIPSE PERFECTION MULTIPLE DISC BRAKE** combines marvelous gripping power with practical indestructibility.

The **ECLIPSE PERFECTION MULTIPLE DISC BRAKE** is stronger, proportionately, than the most powerful automobile brake ever made.

The **ECLIPSE PERFECTION MULTIPLE DISC BRAKE** has a braking surface of more than 100 square inches. That means more than a square inch of perfect gripping surface to every three and a half pounds weight.

The discs of the **PERFECTION** are six in number, each 5¼ inches in diameter. These discs are mounted on one side of the hub, instead of inside it.

The **ECLIPSE PERFECTION MULTIPLE DISC BRAKE** has less parts than any other brake made, automobile or motorcycle.

The bearings contain ⅜-inch balls. Lubrication is a matter that will require very little attention, for the hub can be packed with hard oil at the start of the season, and this supply will last the entire year.

For tandem and sidecar work, the **ECLIPSE PERFECTION MULTIPLE DISC BRAKE** is ideal. Its unerring accuracy and bull-dog grip can bring the heaviest twin to an abrupt halt from full speed, not once, but with unfailing regularity. **AND WHAT IS MORE,** this kind of abuse in no way affects its durability.

Dealers—Your re-stock orders should be sent in at once. A tremendous demand is as inevitable as the dawn of a new day. Sit down and fill out that order blank **today.**

ECLIPSE MACHINE COMPANY

Elmira, N. Y.

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Selling Agent
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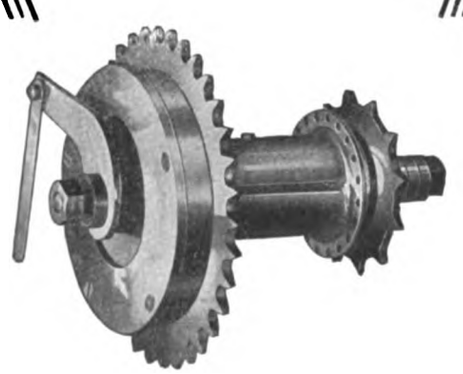

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MOTORCYCLE ILLUSTRATED

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PAID CIRCULATION THIS ISSUE, 14,250 COPIES.

IMPORTANT.

OWING to its large circulation, it requires two full days of 24 hours each, after the last form has closed, to print, bind and mail a full edition of MOTORCYCLE ILLUSTRATED. In view also of the fact that this publication is read in more than 2,400 different cities, towns and villages in the United States, its wide distribution demands that each issue be placed in the mails not later than noon every other Thursday, the date of publication. In order to make the mails at this time, forms must close not later than 6 p. m. Tuesday, and advertising copy cannot, therefore, be handled if received later than Tuesday morning.

RECEIPT OF TEXT MATTER.

This applies also to text matter. Photographs should reach us not later than Monday morning preceding each date of issue. They will be given better attention if reaching us the Saturday preceding.

CORRESPONDENCE.

MOTORCYCLE ILLUSTRATED requires correspondence and subscription agents in many towns where the paper is not already so represented; we pay a liberal commission to subscription agents, and the best space rates for text-matter, drawings and photographs.

PHOTOGRAPHS.

Drawings, photographs and manuscript not suitable for publication will be returned if sufficient stamps are enclosed for the purpose. In every case, photographs should be plainly marked, so that they may be properly identified.

MORE TOURING ARTICLES.

WHILE we are confident that the present special number will meet all expectations as to the scope and quality of its contents, we are forced to admit that a number of interesting features were crowded out at the eleventh hour for lack of space. This is always the case; conditions would be no different if twice as many pages of text were used, and we mention the fact simply by way of calling attention to the special value of several profusely illustrated articles that have been held over for the May 29 issue.

We are preparing to give more attention than ever before to touring, in the belief that nothing can make a stronger appeal to the rider during the summer months, and the May 29 number will be indicative of what is to follow.

EDITORIAL VIEWPOINTS

WITH the touring season under way there is an increasing demand for information concerning state license regulations, and owing to the fact that such data is not always easily obtainable many riders undertake long trips without advance knowledge of the legal conditions they will have to contend with. It is obvious that such a system cannot give the rider satisfaction, and the time is at hand when specific information should be provided by all state officials, applying to visiting motorists. An effort is being made by the F. A. M. Touring Bureau to complete a file of such data, and that it will prove of great value is attested by the daily demand for it. Riders and F. A. M. officials having such material are requested to forward it to the Touring Bureau for the benefit of motorcyclists in general.

SOME FAR-FETCHED WITTICISMS.

EVERY so often, certain gentlemen more or less gifted with literary ability and a sense of humor, succeed in persuading the editor of a popular magazine to feature some of their "funny stuff" about the motorcycle. These writers thereupon promptly set to work building a story about the highly imaginary beginner who, having started his machine, finds himself at loss how to stop it and faces the sad predicament of having to ride until his gasoline gives out. As this would require a story long enough to run over into the pages usually devoted to advertising, the author is under the necessity of making something ridiculous happen to bring the machine to a stop. The attitude of these authors reminds us of a vote taken among Manhattan's elite early in the nineteenth century. The balloting showed a sentiment of about 10 to 1 against the "steam cars," the ten as against the one favoring the ancient stage and wondering why even an inconsequential minority of the business and social leaders of the day could see anything at all in the "new-fangled" method of transportation.

The illustrators of these stories, taking the cue from their writers, invariably seat a disreputable-looking individual astride a gas stove, grasping a broom handle or so, said illustration being foot-noted to the effect that no one need buy a motorcycle, when all the sensations of the sport are obtainable by the economical method pictured above, etc., etc.

Need we add that the gentlemen who indulge in such "witticisms," had they lived in 1813 instead of 1913, would have been among those who voted against the "steam cars" and prophesied that the railroads would soon go out of business?

A QUESTION OF WHEELS.

DURING the writer's recent tour of the United States, our opinion was often solicited in reference to the future of the so-called cyclecar in the United States. Furthermore, numbers of those interested in the manufacture and sale of motorcycles queried us as to the attitude of MOTORCYCLE ILLUSTRATED towards the cyclecar. We frankly admitted our utter inability to forecast the cyclecar's future in this country, and we were equally frank to admit that the ultimate outcome one way or the other would not be seriously affected by either friendliness or hostility on the part of the motorcycle journals. In any event, we hold that only narrow-gauged mentalities can possibly be responsible for any sentiment of hostility to the cyclecar.

As a matter of fact, we doubt whether anyone on either side of the Atlantic knows as yet just what a cyclecar is. We understand it to be arbitrarily defined in England as a three- or four-wheel motor vehicle built along motorcycle lines and limited in weight to six hundred pounds. If one were to place in a row twenty-five or thirty English products, starting with a full-fledged motorcycle and continuing through the sidecar and the so-called cyclecar to the genuine automobile, it would be more than difficult to draw the line at any point between the motorcycle and the cyclecar, or between the cyclecar and the automobile.

However, the machines which today go by the name of cyclecar cannot be put to the general uses which apply to both the motorcycle and the automobile. For service over city streets and elsewhere where smooth roads are available, the cyclecar may appeal to a certain clientele, though we cannot see how it will ever become a serious competitor, in the matter of either price or of other considerations, to the motorcycle even today, not to speak of the motorcycle of the future.

The phrase "motorcycle of the future," opens a very interesting field for conjecture and the exercise of one's imagination to the very limit. If the motorcycle of today proves itself to have approached the ultimate standard of the most economical form of rapid and handy transportation, well and good. If, on the other hand, a period of extensive development is still ahead, who shall attempt to prophesy what the motorcycle of the future will be, even in a general way, aside from such an unimportant consideration as the number of its wheels? It is our opinion that this latter point will be determined by expediency and that, no matter what the solution of the problem may be, the motorcycle trade cannot help but benefit. When, if ever, the small four-wheeler demonstrates superior qualities from all the points of view from which the manufacture of motorcycles must be regarded, then, and not until then, will the cyclecar be given whatever attention it may deserve by responsible manufacturers.

The use of the word "motorcycle" is by no means limited to a motor vehicle having but two wheels. The application of the word has thus been limited for obvious reasons, principal among them being the fact that the two-wheeler has met all the requirements of moderate pricedness, economy of operation, ease of handling, convenience and speed, in nicer proportions than any other vehicle. It is our opinion that this condition will continue indefinitely, although there may be an opening for a goodly number of cyclecars without their manufacture and sale in any way interfering with the steady growth of the motorcycle industry. At all events, no first-class manufacturer of motorcycles has anything to worry about, if only for the reason that the two-wheeler will always be in a class of its own and always deservedly popular among hundreds of thousands to whom its numerous excellent qualifications will always appeal.

Finally, there's enough room in the field to make crowding, except of the inefficient, altogether improbable.

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The WARNING SIGNAL

by PATHFINDER

IN three seasons of fairly consistent road work the writer has been given numerous opportunities to observe the value of a dependable warning signal, and has finally placed this adjunct second only to a good lamp in his touring creed. I have no patience with a motorcyclist who begs trouble by riding at night without an efficient lighting system, and I have come to exhibit the same lack of sympathy for the rider who takes chances on the road by failing to equip his mount with a reliable horn or whistle. What foolish economy it is to refrain from spending a few dollars for a device that will last as long as the machine, when a single mix-up due to the absence of a signal may cost ten times as much—not to speak of personal injuries.

There was the experience of my friend Williams, for example. Well, perhaps that isn't his regular blown-in-the-bottle name, but Williams will serve our purpose. He joined the ranks of motorcyclists about three weeks ago and took me around to see his new machine. I enthused properly. Always do, I wouldn't give two hurrahs for a rider who didn't like to hear his machine praised. Then I called attention to the fact that he had neither lamp nor horn and gave him advice.

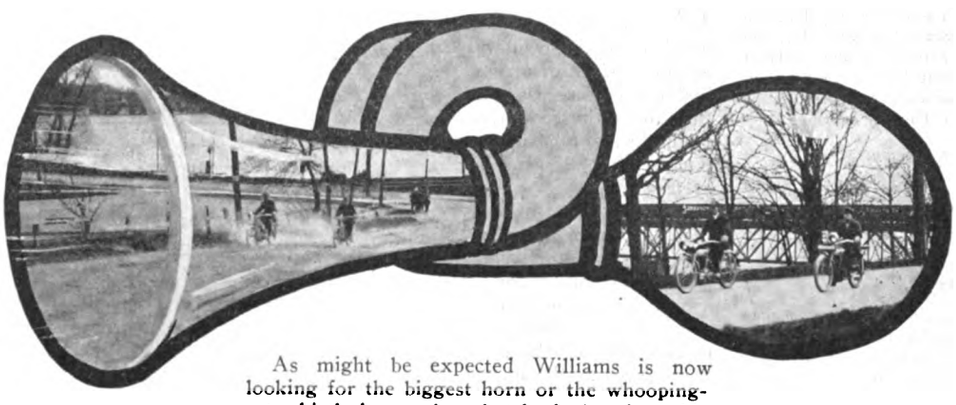
"Better get some kind of a warning signal," I suggested. "There are fifty-seven kinds of trouble lying in wait for the chap who tries to ride without one. If you can't afford a horn or a whistle, fit a cow-bell temporarily, but above all things don't go out on the road with nothing but your exhaust to warn road-users of your approach. Don't you know that—"

"No I don't," he interrupted, "and what's more, I am not in a hurry to spend money and clutter my machine up with fittings that I can dispense with. I ride carefully and keep my eyes open. Instead of warning other people to clear the way for me, I watch them and get out of their way. I'm new at the game, of course, but I always have my machine under perfect control and if I find myself in a tight place I simply stop."

WHAT HAPPENED TO WILLIAMS.

So much for my advice. Four days later Williams was in bed and his brand new machine was in a repair shop. It was this way. Sunday afternoon trip into the country; long hill with a bend at the bottom; milk wagon coming out of a cross-road; driver didn't hear the motorcycle; rider could not see the wagon; bing!

It was not an unusual accident. In fact, it was of the commonest variety. If Williams had given a warning signal when he was say, two hundred yards from that curve, the milk-wagon driver would not have driven out of the crossroad and blocked the main highway. If—but what's the use? Williams didn't have a horn or a whistle, and obviously could, not blow one. He could have bought a dozen horns with the money he spent as a result of that accident. After settling with the family physician and the repairman he had to go down into his jeans for $12 to cover repairs on the milk wagon. No economy in that.



As might be expected Williams is now looking for the biggest horn or the whooping-est whistle he can buy, but he had to have his costly lesson first. A humble milk wagon taught him what he would not accept from me. So goes it.

"Quite a few of the boys are puzzled as to just what kind of a warning signal they should use and how they should fit it," remarked a dealer of my acquaintance, as we were discussing Williams' experience, "but I always advise them that they need not be finicky about the style of their warning signal—as long as it signals. That's the main idea. Let 'em know you're coming; don't sneak up and then expect folks to turn handsprings getting out of your way. You may encounter a trolley car or a brewery wagon some day that has only a limited knowledge of ground and lofty tumbling, and then there'll be a fuss.

CHOOSING A SUITABLE HORN.

"I find that a medium-sized horn, fitted on my handlebar, meets all my requirements," continued the dealer. "I would advise getting one with a fairly high-pitched tone. This gives extra carrying power and is easily distinguishable from other road noises. In other words, I prefer a squeak to a toot. Some motorcyclists use a low-pitched Mississippi-steamboat sort of horn in the belief that road-users will pay more attention to a signal that sounds as if it might be coming from an automobile, but I don't believe the theory pans out. All you need is a warning. You don't require a horn that sings a bass solo.

"If the rider must have something out of the ordinary let him buy a siren horn, or an exhaust whistle. Quite a few of the boys are going in for the whistles, and I find that they give satisfaction. They certainly can be heard far ahead on the road, and the only seeming objection to them is that they entail a little more trouble than a horn in fitting. Once you get 'em attached they are great road-clearers and they do not easily get out of order. In fact, there isn't much to be said about keeping the warning signal in trim: makers of whistles and both bulb and electric horns are turning out such high-grade offerings that the selection of one simply comes down to a question of personal choice.

"If a bulb horn is being fitted care should be taken to place it so that the vibration of the machine will not cause the rubber bulb to chafe against the handlebar. If this is not guarded against the bulb will wear through before its time, and a new one will have to be bought. It should also be seen to that the horn is protected against damage in spills as far as is possible. If the horn is turned so that it comes on the inside of the handlebar it is not likely to be smashed in any ordinary fall, and it will be just as handy to operate as if on the outside or the upper side of the bar."

RULES FOR USING A SIGNAL.

"I have noticed that even when a rider does carry a warning signal he is often careless about using it," I remarked. "It strikes me that a set of rules would help a little."

"Nothing to that," said the dealer. "No one could frame rules for all the emergencies that arise on the road. No, the rider must use his head—and then his horn. There are certain general rules, however, that always hold good. The motorcyclist should sound his signal when approaching any curve in a road; when about to cross any intersecting street or crossroad; when about to pass around from behind any vehicle; when approaching any car or carriage from which people are alighting; when passing any point where his view of the road ahead is shut off

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for even a moment. It is a simple matter to give a toot of a horn or whistle, and it may prevent a lot of trouble.

"On the other hand, it is not necessary to romp up and down the country with a siren wailing like a revenue cutter in distress or an exhaust whistle letting out shrieks after the manner of a band of Apaches holding up the traditional stage-coach. There is a happy medium. Horns and whistles are not toys. They should be used only when needed—and then they should be resorted to promptly and unfailingly. Most cities specify their use, but regardless of municipal regulations no motorcycle should be used without a signaling device.

"There is a great variety of warning devices on the market—almost any one of which will fill the bill. Let the rider drop a line to any of the leading manufacturers or call on some dealer in his district and he will have no trouble in making a selection. The main point is to equip the motorcycle with a signal before there is trouble. It doesn't pay to be a Williams."

At this point the writer strolled out to the curb, flung a leg across the saddle and gave his horn a few staccato toots preparatory to getting under way. My friend, the dealer, waved his hand from his doorway.

"Keep at it," he called, "and you'll be on the safe side. A toot in time is worth half a dozen after the accident."

Makers of Warning Signals

Culmer Engineering Co., 6 Church street, New York. (Keco electric horn.)

Barco Brass & Joint Co., Chicago, Ill. (Barco exhaust chime.)

Coming Mfg. Co., Railway Exchange, Chicago, Ill. (Trinity Chimes motor horn.)

Star Electric Co., State and 64th streets, Chicago, Ill. (Samson electric motorcycle horn.)

Aermore Mfg. Co., 1536 Michigan Blvd, Chicago, Ill. (Aermore exhaust horn.)

Riley-Klotz Mfg. Co., 17 Mulberry street, Newark, N. J. (Nightingale exhaust whistle.)

Randall Faichney Co., Franklin Square, Boston, Mass. (Jericho exhaust horn.)

Dean Electric Co., 603 Taylor street, Elyria, Ohio. (Maxo electric horn.)

Purdy Bros., 49 E. Garfield Blvd, Chicago, Ill. (Purdy exhaust whistles.)

Sarco Engineering Co., 112 Broad street, New York. (Acme siren.)

RESTRICTING THE AMATEUR

CHAIRMAN THORNLEY, of the F. A. M. Competition Committee, reports a carrying vote of the Federation Board of Directors on the resolution recently submitted to prohibit an amateur rider from receiving expenses from any person excepting a senior member of his own family, and the regulation is therefore approved. While the vote was being taken a member of the Directorate suggested that the resolution have the additional clause: "provided said senior member of the family is not a motorcycle dealer or agent," inserted to carry the prohibitive effect still further, and the competition chairman is now requesting a vote of the directors on this change.

PRESIDENT PATTERSON has appointed G. R. Morse, 760 Bayard avenue, St. Louis, State F. A. M. Commissioner of Missouri.

Touring Inducements of Pennsylvania

UNTIL quite recently, the Keystone State as a whole has not figured as prominently as it should in general motorcycle touring, largely on account of its long-established reputation among non-residents for its rough and hilly roads. For instance, strangers from Chicago or West, bound for the New Jersey coast, Philadelphia, and even Baltimore or Washington, have been accustomed to take the much longer way via Cleveland, Buffalo, the Hudson River and New York, rather than the short-cut across eastern Ohio and central Pennsylvania. However, this is now being gradually changed, especially by the rebuilding in good shape of the Pittsburgh-Philadelphia turnpike between Greensburg, Ligonier and Bedford, formerly the toughest, most wearing stretch on any of the several routes between the east and the west.

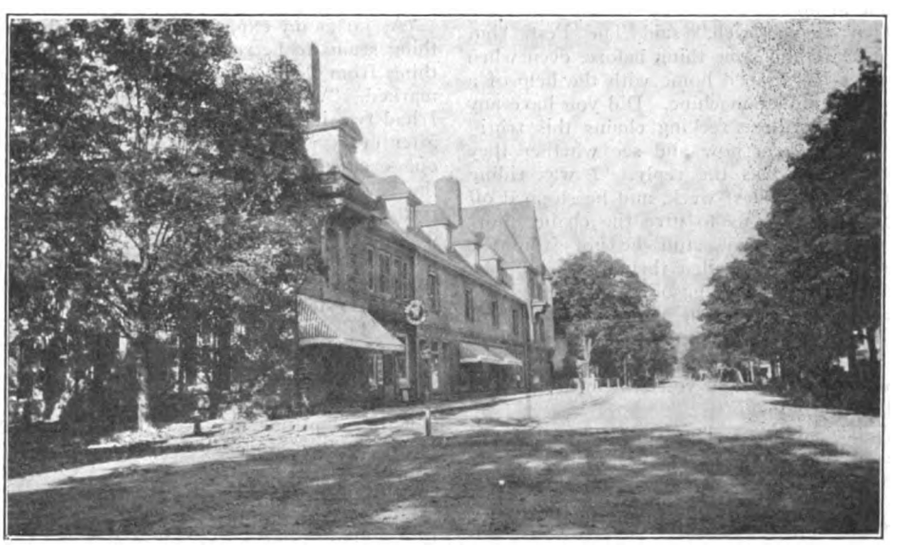
Great improvements are also being made in other sections, and of course nothing is more beautiful than pleasant hill country, so long as it can be traversed by good roads. Pennsylvania has the pleasant valley of the Delaware River, the majestic Susquehanna, the Allegheny, Blue Ridge and Pocono Mountains, Valley Forge, Gettysburg and many other localities of scenic and historic interest, all of which are being made more accessible for the motorcyclist. Hotel accommodations will average nearly as good as in New York state, and the toll gates that have been characteristic of the through routes in Pennsylvania are gradually being abolished as the State road system gains headway.

The poet, Edmund Clarence Stedman, is quoted as saying that he had more pleasure in "gazing" at the Raymondskill Falls, in Pike Co., Pa., than at Niagara Falls; however, this is but one of the beautiful falls of northeastern Pennsylvania, where the mountain streams take their final leaps down to the Delaware, for their long, winding way to the seas. Central Pennsylvania has several views of wondrous beauty that are unknown to motorcyclists residing within one day or two days' ride of them.

One of these is from the junction of Terrace Mountain and Sideling Hill, a few miles below Huntingdon; the other is from the crest of Bald Eagle Mountain, near Bellefonte. An appreciative traveler who has been exploring the valleys and mountains along the "Blue Juniata," speaks with enthusiasm of the view to be obtained from Mine Hill, on the road leading from Nickel Mines to Strasburg, Lancaster county, and of the wide expanse of picturesque country visible from the highest point of the Columbia and Marietta pike, or from Ephrata Mountain.

From the ridge in Montgomery county, which divides the waters that flow towards the Delaware from those flowing into the Schuylkill, from the crest of the valley hills just above Valley Forge, where the spectator can take in the sweep of the Chester Valley and of the Schuylkill Valley, to the Blue Mountains nearly forty miles away, with only turning on the heel; from the mountain summits of Sullivan County, especially from North Mountain, where the lower mountains appear to roll like ocean waves below the spectator for a distance of fifty or sixty miles, and from the summit of Moosic Mountain, in Wayne County—from all these points and many others, some nearer and some more remote, but all accessible to the motorcyclist, are views which profoundly impress the fortunate beholder with both the force and the infinite variety of nature.

Like the point in the Lehigh Valley Railroad at which the Wyoming Valley bursts upon the vision, the spot referred to in Wayne county, from which undoubtedly is to be seen the most extensive view in Pennsylvania, is called Fairview. According to the traveler whose observation has already been quoted, the lakes visible from Fairview, Wayne county, number fourteen. Plainly seen in a clear atmosphere are the Catskill Mountains, ninety miles away. Before the spectator is a wilderness—mountains, forests and glimmering mountain lakes, and over all broods the unbroken stillness that prevailed there when the Indian alone had ever gazed upon the inspiring scene. Some of the places mentioned are little known, but will be more popular as touring interest increases. The tourist is in no danger of being crowded, and isolation often has its charms.



View of picturesque main street in Milford, Pa.

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BELT CHAIN & COMBINATION DRIVES

by N·A·W·

IT was with a sinking heart that I heard the voices of The Pest, The Photographer, and The Speed-Maniac as they came along the garden path toward where I was doing a little cold-vulcanizing. I was experimenting with a new acid-cure and it was pretty poor stuff, so that visions of having to turn the work over to a repairman came to me, meaning much delay before I could start riding again. However, there was no help for it and with the trio of visitors at hand, I realized that I was in for an argument or two.

After inquiring what I was doing and how it was getting along, the Speed-Maniac led off. He is a devout advocate of the chain drive, and like The Pest, who is a flat-belt fanatic, thinks his choice is the only transmission worth having. The Photographer, like the writer, is a V-belt user, so the three common transmission forms were represented.

"Had a fine trip yesterday, out to the Lake and back in five hours," said the Speed-Maniac. "Of course, I stayed out there part of the day, but came home in time for dinner. The roads are fine and naturally, I had no trouble at all."

"That sounds well," said The Pest, "but we've heard the same thing before, even when the rider has limped home with the help of a rope and another machine. Did you have any trouble with those reeking chains this trip?"

"Look at them now and see whether they reek or not," was the reply. "I was riding with the Doctor last week, and he stopped off long enough for us to give the chains thorough baths in some stuff he got from the chain-maker. We boiled them first and then scrubbed them with gasoline, before giving them a hot bath in the chain solution. All I've used on them since is a brush at night and a stick of graphite. It's the same as the chain on a bicycle and you remember how we used to clean them."

"Well," admitted The Pest, "the Doc. is wise to quite a few wrinkles. But I don't have to bathe my belt when it's been out on the road; all I do is wipe it off and rub a little dressing on it. Then it's ready to pull my machine anywhere. Which do you think is the best transmission, old top?" This was addressed to me.

I could see the filler gradually coming away from the sides of the cut I had been working on and was far from pleased by the fact.

"Write to the papers about it," I advised, "or ask The Photographer here; he rides a belt mount. But if you want to discuss it at length, there is room on the front porch."

The Photographer, who measures everything in relation to its color value on a plate, withdrew his countenance from the hood of his camera.

"While I ride a machine which (like everyone else's), has the best form of transmission possible, I can see that it depends a great deal on the user as to which is the most desirable drive for general work. About all I do with my belt is keep it free from stones and mud, not to mention water, and give it some dressing now and then. I keep the pulleys in line, just as if it were a chain-drive machine, and use efficient guards. I've ridden over 1,800 miles since November, and haven't had any trouble yet. With the slack adjuster, I can set the belt tight for hills and loosen it again for level running, and a flat-belt rider can do the same. This slacking and tightening stunt isn't done as much as it ought to be on belt machines, but if you tour a little you will soon see how much more service you can get out of any belt by doing it."

Strange to say, the filler I was experimenting with had decided finally to adhere to the lips of the cut in my tire, and in a few minutes the job was complete. After washing it with the fixing solution, I laid it aside and relighted my pipe.

"As far as my experience has gone, the main thing seems to be regular inspection of everything from the motor to the rear hub," I remarked. "When I used to tour considerably I had two inspection systems, one to be made after every run and the other before starting out each time. The first included cleaning the belt or chain and lubricating it, and then trying out the clutch. After seeing that the drive and clutch were O. K., I looked to the alignment of the wheels and drive. Before starting off I took a short run for a clutch and brake trial, and was then ready to proceed. The whole inspection did not take more than two minutes in the morning and about five or ten after the run, unless the roads were unusually bad. Consequently, punctures and poor gas were the only troubles I used to have, unless something hit me or I hit something."

"I suppose the belt-vs.-chain argument will continue till the crack of doom," broke in The Pest. "How about the belt-and-chain drive? Is anyone trying that out now?"

"One of the big accessory men is experimenting with a chain drive to the countershaft and a V-belt to the rear wheel," I informed him. "That ought to satisfy both parties, as it has the advantages of each form: the flexibility of the belt and the positiveness of the chain. It is known that it will work on a 4 or 5 h. motor, but on a 7 or 8 h. twin—well, lots of people need to be 'shown.' It's the transmission of the future, unless the shaft becomes better developed."

"Speaking about the shaft-drive, do you think it will be used much in the future?" asked the Speed-Maniac. "Might be," said The Photographer, "when they get better clutches or when a compensating device is fitted between the motor and the rear wheel. But for touring the shaft ought to be the best ever, as you would simply let it alone, giving it oil only at long intervals, say every month."

"The combination belt-and-chain drive might be all right," said The Pest, "but you'd have to carry spare links for the chain and couplings for the belt as well."

"Why?" asked The Photographer. "There wouldn't be any breakage of either, as the belt would slip and relieve the chain when the shocks came." That closed the discussion for the time and the trio departed a few minutes later, the Speed-Maniac getting away as usual with the most noise and in the least time. And we still have the transmission problem left open for another argument.

Hide Leather & Belting Co., 227 So. Meriden street, Indianapolis, Ind. (Wetprufe belts.)

Sarco Engineering Co., 112 Broad street, New York City. (Coventry chains.)

Sam D. Hanna & Co., Yorkshire, Ohio. (Duncan's belt dressing.)

The Bean Co., Berea, Ohio. (Bean motorcycle chain repair tool.)

Peter A. Frasse & Co., 419 Canal street, New York City. (Renold chains.)

Chicago Belting Co., 113 No. Green street, Chicago, Ill. (Chibeco belts.)

Diamond Chain & Mfg. Co., 227 W. George street, Indianapolis, Ind. (Diamond chains.)

Kraft Appliance Co., 150 E. Exchange street, Akron, Ohio. (Asbesto Pull-E-Tape.)

Whitney Mfg. Co., Hartford, Conn. (Whitney chains.)

Duckworth Chain & Mfg. Co., Springfield, Mass. (Duckworth chains.)

Graton & Knight Mfg. Co., Worcester, Mass. (Spartan belts and belt accessories.)

CURE FOR CLOGGING PILOT JET

WITH the give-and-take gasoline obtained by riders in all kinds of places, there are frequent occasions when the pilot-jet of a two-jet carbureter becomes clogged through dirt and other foreign substances. In order to obviate this, A. T. Merrick, a well-known New York rider, suggests putting a wad of finest grade steel wool in the passage below the jet.

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RE-MAKING the HISTORIC TRAILS

ONE of the most interesting and far-reaching good roads developments of the present time is seen in the great efforts being made by the people of the West to restore to general use the picturesque old trails which, in the early part of the last century, carried most of the emigration beyond the Mississippi and the Missouri rivers. That was by far the greatest movement of its kind in all history; and as a result the nation gained in population, wealth and territory beyond the dreams of the forefathers. This migration was necessarily made altogether over roads not much changed from the primitive Indian trails; of course there were no railways and no navigable east-and-west waterways between the "Big Muddy" and the Pacific Coast.

At first, Kansas City, Leavenworth, Atchison and St. Joseph—later on Omaha and Sioux City also—were the strategic beginnings of these "trails" of from 1,500 to 2,000 miles in length, which in a single generation penetrated the Far Central West, the Southwest and the Northwest, gradually eliminating the old frontier. Now the prosperous and progressive States of Kansas, Nebraska, Colorado, and Wyoming, Utah, Nevada, New Mexico, Arizona and California are taking up these important trunk-line routes, not only for the purpose of preserving their historic interest, but to transform them as rapidly as possible into great interstate highways for the accommodation of the increasing number who travel by automobile or motorcycle.

Ten years ago nothing was heard about this; and insofar as the movement can be traced to any one person, it should be credited to Ezra Meeker, a pioneer and historian of the Northwest, who started out several years ago to retrace the route followed by him in 1852 from the Missouri River to Oregon and Washington. As if forgetting all improvements in travel through the intervening years, he drove a yoke of oxen from the vicinity of Olympia, Wash., to Omaha, Indianapolis, New York City and then to Philadelphia, Baltimore and Washington—one of the notable trips of modern times, taking the better part of two years.

HOW MEEKER AROUSED ENTHUSIASM.

The writer watched his progress overland with great interest, and after some preliminary correspondence, went to Oneida, N. Y., to ride with him to Utica, a distance of about 22 miles. This trip took fully ten hours, as the average progress was only about two miles an hour; after having ridden over the same stretch many times in less than sixty minutes, the sensation of being passed by pedestrians was at least a novel one. There is no such thing as hurrying a yoke of oxen, but they "get there" just the same, as amply proven in the days of the pioneers. During that ten hours' ride, I received more information and clear-cut impressions about old-time travel in the West than I have been able to secure before or since; the old veteran was excellent "company," and except for the long time necessary to do it, I would have liked nothing better than to have crossed the prairies with him.

En route Mr. Meeker (who was already well-to-do and made the trip for the novelty of it as well as to arouse enthusiasm), delivered many addresses, in that way raising funds for the erection of suitable monuments to the pioneers, which has since been done in a number of places. Whatever might have been thought of this fantastic reproduction of an overland trip by one of the few survivors among the original "trail-makers," it attracted wide attention, especially when Meeker and his ox-drawn "prairie schooner" was received by President Roosevelt in front of the White House. The occasion was a memorable one.

View of a typical old mission in California.

Everyone with something of the western fever in his blood, whether it had come from experience, or from catching the spirit of Parkman and the early travelers, crowded around the old pioneer and his wagon to wish him luck on the long journey. In fact, the trip was a continuous ovation from beginning to end—the public's response to his effort to awaken interest in the movement to definitely mark out and restore the old roads leading into the Far West before first-hand knowledge of them could be lost. The same interest spread rapidly to other routes, and within the last ten years two-thirds of the trans-Missouri country has been more or less committed to the idea.

KANSAS HEADS THE ROAD BOOM.

In actual working out of this plan, Kansas has been from the first leading all the other States, which is especially appropriate considering that in the early days, Kansas City was the most important

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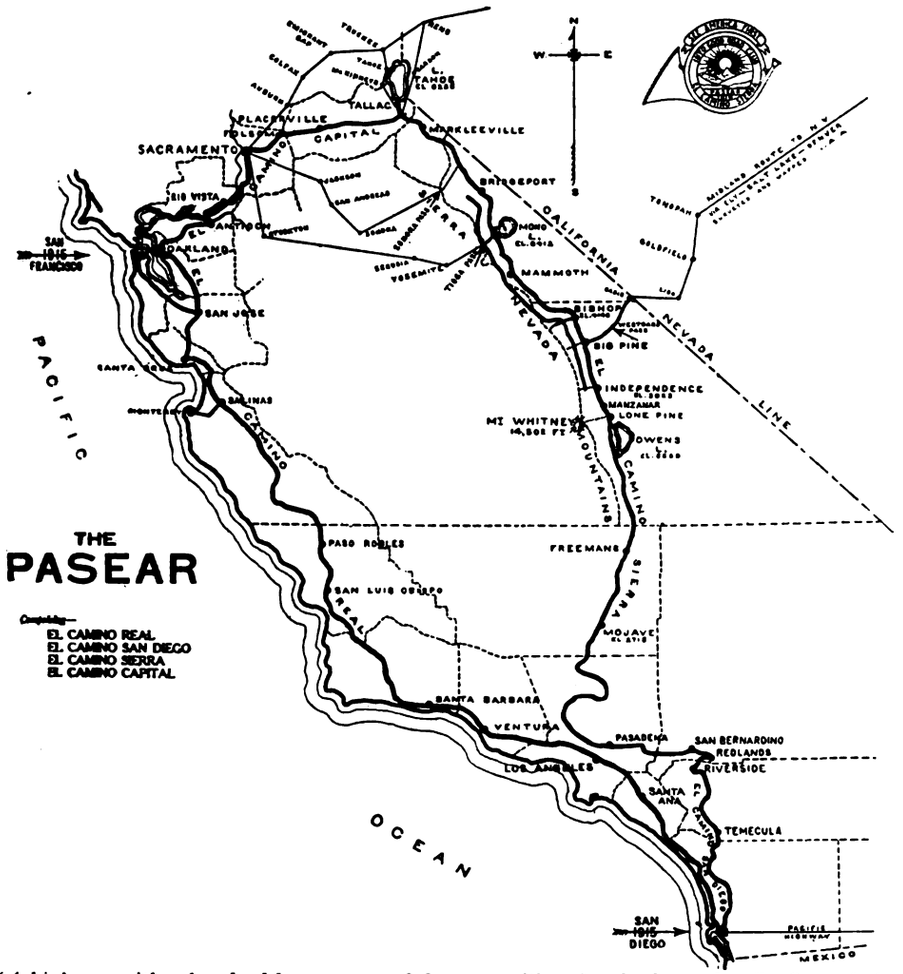


"A highway with a hundred by-ways—each by-way with a hundred wonders." One of the most interesting route developments in California.

single gateway to the West and immediately across the Missouri River, the level Indian trails of Kansas stretched for hundreds of miles toward the Rockies and the Pacific Coast. The program started when twelve of the western counties came together in convention to consider the question of improving their means of intercommunication by road.

It was found that the pathways by which the lumbering prairie schooners had made their way beyond the great rivers, over which the "pony express" had carried the mails by swift relays, and along which cattle were driven by thousands, were the logical routes for development under the new dispensation. in most cases their courses were as scientifically correct as if a commission of eminent modern engineers had laid them out.

Upon the basis of these old roads, the movement for improved through highways grew until now the New Santa Fe Trail is being made a thirty-foot speedway running from Kansas City through Emporia, Hutchinson and Dodge City, Kansas, La Junta and Trinidad, Colorado, Raton and Las Vegas, N. M., to the old city of Santa Fe. In some parts this differs from the Old Santa Fe Trail, and their rivalry has helped to make two good roads instead of one from Kansas City to Lyons, Kan., with a number of closely related developments gradually tending to improve the roads of the entire State.

"Trail Day" has become an established institution in the Kansas Public Schools, for two reasons: First, to acquaint the children of a new generation with the history of the Santa Fe Trail, and, second, to popularize a movement to raise funds for the purpose of permanently marking the old road's course across the Sunflower State. The youngsters were expected to learn the "Emigrants' Song," which some one of the older generation wrote, and which begins:

"We cross the prairie, as of old
The Pilgrims crossed the sea,
To make the West, as they the East,
The homsteads of the free."

This is not very good poetry, nor wholly sound logic, for New England, New York, New Jersey, Pennsylvania and Virginia were always as free as Iowa and Kansas are now; but it expresses something of the pioneer spirit, which in a remarkably short time created a dozen "Inland Empires." The majority of those who passed westward over these long trails were real seekers after homes, with plenty of "elbow room," even when that meant absence of neighbors and the discomforts of the primeval wilderness and the unbroken prairie. California's gold rush drew thousands, as did the report of fortunes to be made in the fur trade of the Northwest, and in the early commerce with Mexico; but these were movements of limited duration, overshadowed by the greater migration that swarmed over the different trails.

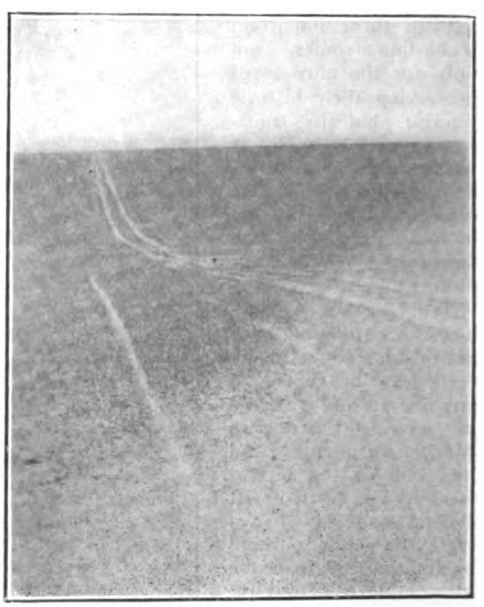
HIGHWAYS FOLLOW THE OLD TRAILS.

The latter were open continuously, in the case of the Northwest, practically from the time Lewis and Clark found their way into the Oregon country in 1805; and in the case of the route to Santa Fe after Zebulon Pike blazed the way to the Colorado Rockies only two or three years later. From these early dates until the railways were constructed across the plains, these trails were the great highways of advancing civilization. They and their connections reached the Pacific Coast by two routes which serve exactly the same purpose today, though steam, gasoline and electricity have multiplied the speed of travel.

Other nearly parallel routes in Kansas and Nebraska were gradually developed, until there are today five complete and fairly distinct lines of travel from the Missouri to the Rockies. Connecting lines have also been improved through Iowa and across northern Illinois, until it is now possible to travel from Chicago through Omaha or Kansas City or both to Colorado by a wide choice of routes and return without going over a single mile covered on the outbound trip.

In addition to the Santa Fe Trail's original extension across New Mexico and Arizona to Southern California, it has a good connection from La Junta through Rocky Ford and Pueblo to Colorado Springs or Denver, at either or both of which cities it joins the Colorado Scenic Highway. The latter, partly completed but with some portions still under construction, continues west via Buena Vista, Glenwood Springs and Grand Junction, Colo., Green River, Price and Provo, Utah, to Salt Lake City. It is expected that by 1915 trips can be made across that way without the admitted inconveniences that exist today. This route not only crosses the Continental Divide of the Rocky Mountains at a greater elevation than any of the other routes, but taps the principal side roads leading into the heart of the Great Hills.

The road built is not uniform in material, and varies considerably in its cost per mile, the plan being to take advantage of the natural conditions of soil, road building materials, drainage necessities, etc., as they are found to exist in different localities. For instance, where rock is plentiful, the road is macadamized. Where sand predominates, it is graded, or piked, and the surface covered with a mixture of sand and clay or gumbo, as the case may be, the surface thoroughly



Crossing the Laramie Plains, Wyo., a distance of 70 miles between stations.

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compacted and smoothed, making a road impervious to water, almost of the consistency and appearance of asphalt; and, of course, at vastly smaller expense.

In other cases, the road is simply graded and dragged, the natural soil conditions serving to make the road practically as good as the other, and with very slight expense. Concrete culverts of artistic design and great durability are fast replacing the former ugly and temporary wood or steel structures. The construction of these highways is being done under the supervision of engineers heartily cooperating in the movement, and who are giving their personal attention to the many details of building constantly arising in work of this kind.

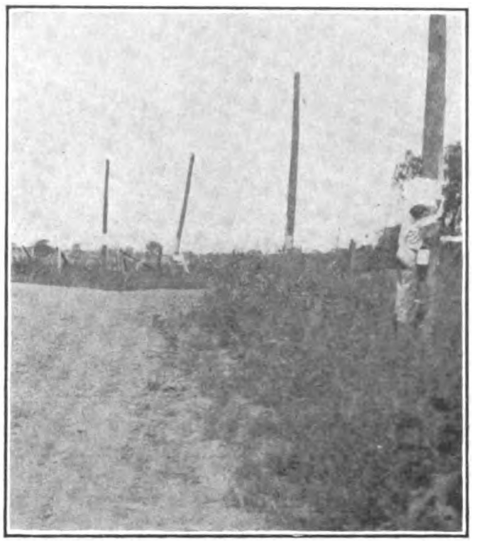
ALONG EL CAMINO REAL.

Another trail-marking project that has made great headway is that to transform into a State highway the old Camino Real, over which the Jesuit mission builders pushed up from old Mexico into what is now California, at the time the trade with the Santa Fe Trail was developing. This road is good throughout almost its entire length, and extends from San Diego on the south to San Francisco on the north; in fact, during the Spanish occupation of this territory, it reached for several hundred miles into Lower California, still Mexican territory.

The first mission within what is now the State of California was founded by Fra Junipero Serro in 1769, near San Diego, and was called Mission San Diego de Alcala. During the following forty years other missions were established in a chain extending north along the coast, and were connected by trails across the mountains and through the forests, over which traveled the robed padres of the Franciscan order. These pathways, worn by the footsteps of the good old priests, became El Camino Real—the "Kings Highway."

On this highway, or close by it, are located some twenty missions of varied architecture, and these, with their histories, offer attractions to tourists to be found nowhere else in America. It is true that while many of these missions, some built of stone and others of adobe, are in a deplorable state of disrepair, this condition emphasizes the age of the wonderful structures, and lends an added charm to their inspection. At frequent intervals along the route will be found road signs, surmounted by a bell, symbolic of the mission bells.

The route from San Diego to San Francisco is 596 miles long. From San Diego north as far as San Juan Capistrano it skirts the Pacific Ocean; for many miles the waves lap the very edge of the road, and between Los Angeles and San Francisco it crosses the following mountain passes: Cahuenga Pass, East and West Casitas Pass, Gaviota Pass, Cuesta Pass, the Jolon Grade, and San Juan Pass. Between these passes across the various mountain ranges will be found fertile valleys where groves of oranges, lemons, olives and walnuts, besides great vineyards, are to be seen, and wild flowers are abundant all along the route.



Sign-posting on the River-to-River Road across Iowa, a carefully worked-out system.

THE PICTURESQUE MISSIONS.

These attractions, combined with distant views of snow-capped mountains, bracing air and cool breezes from the Pacific Ocean, and bright sunshine, will make the trip one long to be remembered. The route is dotted with prosperous villages and many fine resorts where the rose-embowered bungalow is much in evidence, as well as several palatial tourist hotels. The missions scattered along or near the route are:

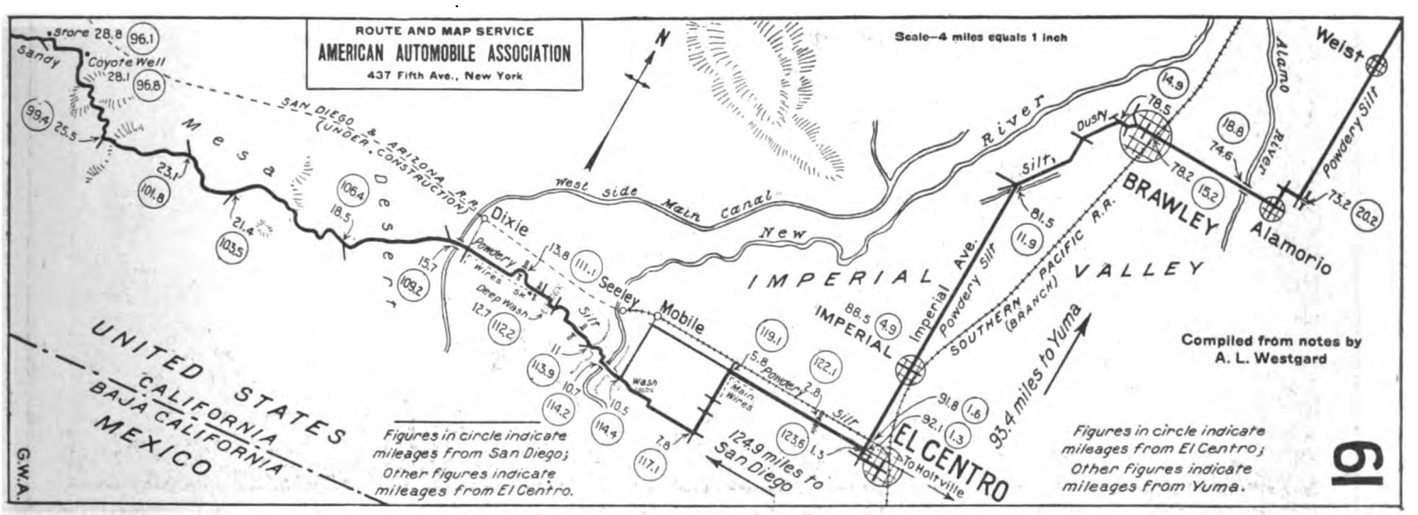
Mission San Diego de Alcala (1769), located 6 miles east of San Diego; Mission San Luis Rey (de Francia) (1798), located 4 miles east of Oceanside; Mission San Juan Capistrano (1776), located at Capistrano; Mission San Gabriel (Archangel) (1771), located about 9 miles east of Los Angeles; Mission (Nuestra Senora Reina de) Los Angeles, located at Los Angeles; Mission San Fernando (Rey de Espana) (1796), located 22 miles northwest of Los Angeles; Mission San Buena Ventura (1783), located at Ventura; Mission Santa Barbara (1786), located at Santa Barbara; Mission Santa Ynez (1804), located 6 miles south of Los Olivos; Mission La Purissima Concepcion, located near Lompoc; Mission San Luis Obispo (de Tolosa) (1772), located at San Luis Obispo; Mission San Miguel (Archangel) (1797), located at San Miguel; Mission San Antonio (de Padua) (1771), located near Jolon; Mission La Soledad (1791), located at Soledad; Mission San Carlos Monterey (1770), located at Monterey, 20 miles west of Salinas; Mission San Juan (de Bautista) (1797), located at San Juan; Mission Santa Cruz (1791), located at Santa Cruz, 38 miles south of San Jose; Mission San Jose (de Gaudalupe) (1797), located 17 miles north of San Jose; Mission San Francisco (Dolores) (1776), located at San Francisco.

Southern California is undoubtedly destined to be the winter mecca for tourists, owing to its pleasant climate, good roads and numerous places of scenic and historic interest. A network of good roads is fast covering the State, and these roads will take the tourist through beautiful agricultural and fruit country, across magnificent mountain ranges and interesting desert stretches.

A REGION OF WONDERFUL VARIETY.

On a run of 200 miles the tourist may experience these various scenic attractions, and enjoy splendid sunshine for weeks at a time. The best season for touring in that section is during the months of April, May and June, but with the exception of a few rainy days, it may be said that touring is pleasant in this part of the state throughout the winter, while during the middle of the summer the heat will have dried up the foliage and rendered the roads dusty.

How the gold-hunters followed the different trails into California is another story of intense dramatic interest; and the routes of their caravans from St. Louis, Kansas City, Leavenworth, Atchison or Omaha westward to Salt Lake City and across the Sierras is



How road notes, taken across the desert in Southern California, are worked up for the guidance of tourists.

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worth tracing for the benefit of those who are not too busy to be interested in a past phase of American history. Meanwhile, what has become known as the "Pacific Highway" is being agitated to connect San Diego, Cal., with Vancouver, British Columbia—naturally the largest single project up to this time on the Western coast.

Even though Europe may have some attractions that this country lacks, a journey overland on any of the four routes that are now practicable is worth while for all who can take the time to make it. Nothing else gives so impressive a lesson on the vastness of the country, discloses the most magnificent farming area in the world, takes the tourist to handsome cities that have sprung up out of the wilderness, shows him as he mingles with their citizens that we are indeed one people, and as he travels on causes him to feel so strangely the spell of the great plains and the desert.

There is no highway to the West that does not abound in interest, and the Pacific Coast itself is wonderfully attractive. True, its people have so much of conscious pride in their surroundings that their claims are sometimes treated with levity, but they are able to "make good." California certainly has a glorious climate, and the variety and beauty of its scenery well repay a trip across the continent, by rail or road. Northward in Oregon and Washington, there is another revelation of picturesque America, such as one can never get from books.

The 1915 exposition that is inviting you—the latest in a long series—is guaranteed with the greatest confidence, and there is every reason to believe that it will prove novel, interesting and instructive. The Northwest is growing so fast that its own people are amazed by their most sober calculations; each approaching day is a great future in itself.

Beyond the great plains are more mountains, more Switzerlands of America, such an embarrassment of riches that the time one wishes to give to them becomes a serious question. With money and time there is employment for months, and there is much to enjoy even under those restrictions to which most of us are obliged to submit. The old trails helped to make all of these localities accessible, as they showed the way to the railroad builders of a later day.

HARKING BACK TO THE OLD DAYS.

Scenes like that pictured by Gregg, who made his first trip to Santa Fe in 1831, are described by many early travelers. Gregg's caravan had come to Round Mound of the San Carlos range of mountains, in what is now New Mexico. As it passed under the northern base of the Mound "it presented a very fine and imposing spectacle to those who were upon the summit. The wagons marched slowly in four parallel columns, but in broken lines, often at intervals of many rods. The unceasing 'crack, crack' of the wagoners' whips, resembling the frequent reports of distant guns, almost made one believe that a skirmish was actually taking place between two hostile parties."

The camp with the wagons drawn up in a square and chained wheel to wheel, the watchful guards on patrol outside the quadrangle, the occasional stampede, when horses, oxen and men were off together in a wild race across the prairie, the tragic days when the Indians attacked a train, and the lurid incident of Mountain Meadow—all these are suggested by the trail historian. Richard Burton's poem, "The Old Santa Fe Trail," though less vivid and specific than the early narrative, appeals with its broader sweep of fancy:

"It wound through strange scarred hills, down
canyons long,
Where wild things screamed, with winds for
company;
Its milestones were the bones of pioneers."

"The bones of pioneers" are, however, unsubstantial marks; real milestones, with distances, are wanted. By providing them, the West is doing American history a true service, and meanwhile is inviting an immense amount of road travel that would not otherwise come. A unique and interesting feature of this work is the selection of some characteristic sign, like the large "R" of the River-to-River Road, by which the tourist may tell at a glance that he is on the right track.

This design was originated two or three years ago by Robert N. Carson, of Iowa City, Iowa, and in a few months it was put up all the way from Davenport through Des Moines to Council Bluffs. Other road associations are adopting their own symbols, and fastening them to telegraph poles or elsewhere in a conspicuous position, to be read "on the go." Gradually the "old trails" are being made not only the best through routes, but are carefully marked for the benefit of the stranger, who usually returns home a permanent walking advertisement for these sections of the country that have the enterprise to do so good a work in so thorough and satisfactory a way.

MOTORCYCLISTS of Ann Arbor, Mich., will hold a Memorial Day run to Detroit.

SANTA FE TRAIL THROUGH THE GREAT PLAINS EAST OF PUEBLO. COLORADO.

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THE WINNING OF A RECRUIT

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A. M. C.—Allied Motors Corporation, Union Park place and Carroll avenue, Chicago, Ill.; 4 h. single, chain or belt drive, and 7 h. twin, chain drive.

American—American Motorcycle Co., 1354 Wells street, Chicago, Ill.; 4 h. single model.

Arrow—Arrow Motor Co., 2854 West Nineteenth street, Chicago, Ill.; 4 h. single model, belt drive.

Black Hawk—Black Hawk Motorcycle Co., Rock Island, Ill.; 4-5 horse single.

Breed—Breed Mfg. Co., Bay City, Mich.; 4 h. single and 7 h. twin.

Crawford—Mid-Land Mfg. Co., Saginaw, Mich.; 9 h. twin.

Dayton—Davis Sewing Machine Co., Dayton, Ohio; 7 and 9 h. twins.

De Luxe—Excelsior Cycle Co., 166 North Sangamon street, Chicago, Ill.; 7 and 9 h. twins.

Eagle—American Motor Co., Brockton, Mass.; 5 h. belt and chain single and 9 h. belt and chain twin.

Emblem—Emblem Mfg. Co., Angola, Erie County, N. Y.; 4 h. single and 7 and 10 h. twins.

Excelsior—Excelsior Motor Mfg. and Supply Co., 2201 Union street, Chicago, Ill.; 4-5 single and 7-10 twin in belt and chain models.

Feilbach, Limited—Feilbach Motor Co., 1248 Holton street, Milwaukee, Wis.; 5 h. single.

Flying Merkel—Miami Cycle & Mfg. Co., 300 Hanover street, Middletown, Ohio; 4 h. singles with belt or chain drive and 7 h. twins with same transmission options.

Harley-Davidson—Harley-Davidson Motor Co., 411 C street, Milwaukee, Wis.; 5 h. single chain or belt drive and 8 h. twin chain drive.

Henderson—Henderson Motorcycle Co., 1158 Cass avenue, Detroit, Mich.; 8 h. four-cylinder model.

Indian—Hendee Mfg. Co., Springfield, Mass.; 4 h. single regular and T. T. and 7 h. twin regular and T. T. models.

Iver Johnson—Iver Johnson's Arms & Cycle Works, Fitchburg, Mass.; 4 h. single and 7½ h. twin.

Jefferson—Waverly Mfg. Co., Jefferson, Wis.; 4 h. single and 7 h. twin.

Michaelson—Michaelson Motor Co., 526 Fifth street, South, Minneapolis, Minn.; 5-6 single and 10-13 h. twin models.

Minneapolis—Minneapolis Motor Co., 517 South Seventh street, Minneapolis, Minn.; 5 h. single and 10 h. twin.

M. M.—American Motor Co., Brockton, Mass.; 4½ h. single and 8 h. twin belt models only.

M. B.—Morse-Beauregard Mfg. Co., Detroit, Mich.; 7 h. twin.

Monarch—Ives Motorcycle Corporation, 200 John street, Owego, Tioga County, N. Y.; 5 h. single and 10 h. twin.

Pierce—Pierce Cycle Co., Buffalo, N. Y.; 5 h. single belt and 7 h. four-cylinder shaft models.

Pope—Pope Mfg. Co., Hartford, Conn.; 4 h. belt single, lightweight, 4 h. single belt, 5 h. single chain, and 7-8 h. twin models.

Reading - Standard—Reading - Standard Co., 340 Water street, Reading, Pa.; 4 h. single belt, 5 h. single belt or chain, and 7-8 h. twin models.

Schickel—Schickel Motor Co., 59 Garden street, Stamford, Conn.; 5 h. single belt or chain and 6 h. single with same transmission option.

Thiem—Joerns-Thiem Motor Co., St. Paul, Minn.; 4 h. single; 8 h. twin.

Thor—Aurora Automatic Machinery Co., 1307 Michigan avenue, Chicago, Ill.; 4 h. single, 5 h. single and 7 h. twin models.

Yale—Consolidated Mfg. Co., 1730 Fernwood avenue, Toledo, Ohio; 5-6 h. single and 7-8 twin models, chain or belt drive.

MAKE-UP OF LEAGUE TEAMS

Board Track Racing Season Opens with Meets in Chicago, Cleveland and St. Louis—Crack Squads in Initial Programs.

ONLY three of the five tracks included in the circuit of the American League of Professional Motorcycle Riders were in condition to hold meets on May 14, the date set for the general opening. The season opened with meets at Chicago, Cleveland and St. Louis, with the following teams competing: Chicago home team and St. Louis road team, at Riverview; Cleveland home team and Chicago road team, at the Cleveland track, and the St. Louis home team and the Cleveland road team at St. Louis.

Three meets will be held every week at each track, on Wednesday, Saturday and Sunday evenings. An F. A. M. sanction will be obtained to cover the three meets for each week. After the road team has covered the entire circuit it will automatically become the home team, and the riders formerly composing the home teams will take to the road. The tracks not yet in condition to open are located at Detroit and Cincinnati.

The teams now riding are composed of the following riders: Chicago—home team: Walters, Caffarello, Harmor, Fischer, Hamilton and Walsh; road team: Werrill, Wetherspoon, Blavin, Pinter, Hubbard and Holsinger. Cleveland—home team: Carslake, Seliga, Walker, Savalak and Harding; road team: Johnson, Glenn, Sudduth, Biggers and Bennett. St. Louis—home team: Standen, Henikman, Barolay, Good and Johnson; road team: Bibson, Smiley, Pitts, Pineau and Chable.

HIGHWAY FOR PLATTE CANYON

NOT wishing to be outdone by Denver and surrounding counties, the Platte Canyon Improvement Association has started to build a broad highway up this beautiful canyon. It is stated that when completed this will be one of the most attractive highways in the country from a scenic standpoint.

A THREE-CLUB RUN

Members of National Capitol, Washington and Maryland Motorcycle Squads Make Pleasant Trip to Ridgeville Over Fair Roads.

NO less than 150 riders took part in the three-club run of the National Capitol, Washington and Maryland Motorcycle clubs, the first two of Washington, D. C., and the last of Baltimore. The outing, which was held on May 4 to Ridgeville was considered one of the most successful ever held in this section. Nearly 75 members of the National Capitol M. C., and about 25 riders from the Washington M. C., were lined up in front of the headquarters of the former club for the start.

Traveling via the Baltimore-Washington Boulevard, the fork in the road leading to Ellicott City, which is located about halfway between Laurel and Elkridge, was reached in less than an hour. Here a halt was made and the riders were sent on in small squads, the road being too narrow to accommodate any great number of machines.

At the outskirts of Ellicott City the Washington riders were joined by the delegation from the Maryland club, about 50 strong. The newcomers acted as escorts over the Frederick pike to Ridgeville, which was reached by 1 p. m. Some of the riders remained here for dinner, while others rode on to Frederick, about 15 miles distant. The Washington riders returned to the National Capitol by way of Damascus, Washington Grove and Rockville, making 150 miles for the day.

Harry F. Seamark, agent for the Flying Merkel and Emblem, left early Sunday morning with his usual bunch of riders for Ridgeville, going by way of Rockville and Washington Grove. Most of this squad returned to Washington with the club riders, but Seamark and three other riders continued on over the Frederick pike to its junction with the new state road leading to Skyesville.

MEMBERS of the motorcycle club of Johnstown, Pa., recently made a run to Pittsburgh.

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Three Perfect Scores at Savannah

DETAILED reports of the double reliability trials of the Savannah (Ga.) M. C., held April 26 and 27, show that there were three perfect scores in the three hundred mile event, while in the 200 mile run the highest scorer received 995 points.

The scores of those finishing are as follows for the 300-mile event—W. C. Everett, Harley-Davidson 4, 1,000; M. Schoreder, Thor 7, 1,000; J. W. Gregorie, Thor 7, 1,000; G. F. Balmer, Harley-Davidson 5, 995; L. G. Buckner, Indian 4, 995; A. Raven, Harley-Davidson 7, 990; J. Balmer, Henderson 7, 990; F. Laird, Excelsior 7, 985; E. E. Jones, Indian 4, 980; J. S. Cafiero, Indian 7, 980; E. S. Waters, Indian 7, 975; G. Cleary, Thor 7, 956; U. S. Ard, Harley-Davidson 7, 940; W. S. Mell, Indian 4, 925, and George Adams, Henderson 7, 895.

Two-hundred mile event—W. A. McIntyre, Excelsior 7, 995; O. A. Meyer, Excelsior 7, 990; W. C. Carraway, Indian 7, 950, and Dennis Downing, Pope 7, 945.

On the twenty-second of this month the club will hold a picnic at Tybee, for which 2,000 tickets have already been sold. Races will be held on the 2½-mile beach in both the morning and afternoon. The club has also completed arrangements for a sociability run to be held June 14 and 15 to Augusta over the 250-mile course. From Savannah to Statesboro the roads are in bad condition, but from the latter point to Augusta the going is mostly over boulevards. A feature of the run is the fact that Mayor Davant, of Augusta, has consented to act as official starter for the return trip, thus giving official sanction to the program.

SHIPPING JERICHO HORNS

OWING to the inability of the Randall Faichney Co., of Jamaica Plain, Boston, Mass., to make deliveries of its Jericho horn for motorcycles the firm has found it necessary to delay the forwarding of catalogs to many riders who have applied for them of late, and the manufacturers are anxious to have the situation called to the attention of patrons in explanation of any seeming discourtesy. The company is now prepared to deliver the Jericho motorcycle horn and to guarantee its patrons the satisfaction that has always been attendant upon the use of the Randall Faichney products. Literature can accordingly be obtained on request, and prompt shipments are assured.

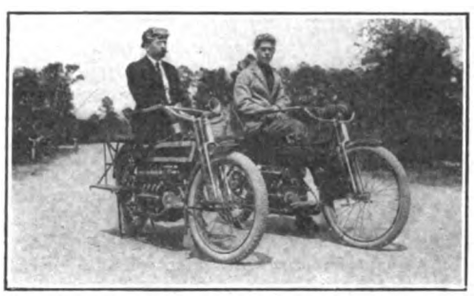
INCREASE IN OUTPUT

AS a result of the persistent demands made by Harley-Davidson dealers for more of the 1913 models the company has decided to increase its output by 2,000 machines. An output of 17,000 machines was originally scheduled for the season. Many of the dealers who have written to the factory of late state that they have practically exhausted the shipments of machines to which they are entitled under their present contracts and it is to supply them with additional machines that the factory will now be put on a night and day schedule.

JOHN SYKES, JR., of Trenton, N. J., agent for Indian and Henderson machines, who has sold 100 twin Indians and two singles (1913 models), credits a large portion of his business to his plan of easy payments.

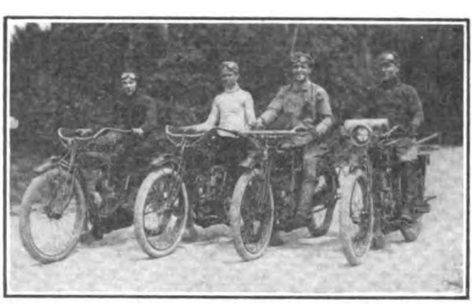
Thor Team at Savannah.

Three Harley-Davidson Entrants.



Two Confident Hendersonians.

A Trio of Excelsiors.



The Indian Quartet.

ECONOMY AND GREATER SPEED

FOR the motorcyclist who demands the best that is in his motor at all times in addition to perfect simplicity of control, one of the most interesting devices recently placed on the market is the "Speedler," produced by the Lydon Mfg. Co., and handled by the Fulton-McCutchan Co., 1146 Michigan avenue, Chicago, as distributors. The Speedler is placed in the intake pipe and its outer end is fitted with a graduating shutter which permits of admitting varying amounts of air to assist in breaking up and thoroughly vaporizing the mixture on its way to the explosion chambers. The tube of the Speedler which protrudes into the intake pipe has numerous perforations through which the extra air is liberated to assist in the vaporizing process, and because of the thoroughness with which this process is carried through considerably more speed is obtainable. In addition the Speedler works for economy, keeps the motor cooler and has a tendency to prevent the accumulation of carbon. The device is controlled by a handy fitting on the handlebar, a flexible cable being carried to the air shutter on the Speedler to permit of ready adjustment.

STRONG ADVERTISING

OWING to the fact that considerable comment has been excited of late by the snappy, straight-from-the-shoulder methods used in presenting the advantages of the Mondex-Helix Mixer, marketed by the Aristos Company, it is of interest to note that this firm's advertising is being handled by the Frank Kiernan Advertising Company, of New York City. As a result of the strong campaign waged by the Kiernan folks the Aristos Company is working at top speed to fill orders for its mixing device. Incidentally the Mondex-Helix Mixer is making friends of its own among riders who demand maximum motor efficiency with gasoline economy.

NEW ATLAS HEADQUARTERS.

HAVING moved into new and more commodious quarters at 221 Michigan avenue, in the heart of Automobile Row, the Atlas Specialty Manufacturing Company, of Chicago, is now in a position to catch up with deliveries, and prompt shipments are being made of the firm's specialties. Slight delays in shipping were unavoidable owing to the moving operations, but the staff is now working night and day to meet orders. The Atlas company has added to its line a new legging, heavily reinforced at the knee to prevent injury to the knee-cap in a spill. Among other new offerings are an improved tail lamp for motorcycles and a complete line of lamp brackets to fit all standard machines.

TO MAKE EARLY START

A REPORT from the Aurora Automatic Machinery Co. is to the effect that manufacturing of the Thor two-speed in conjunction with the improved motorcycle coaster hub will be started in the new Chicago plant within ten days or two weeks. In about forty-five days samples will be ready for the trade. Requests for the Thor two-speed as equipment on 1914 machines are now on file from several manufacturers throughout the country.

A RUN TO WOODSTOCK

AN old-fashioned chicken dinner was a feature of a recent run of the Poughkeepsie (N. Y.) M. C. Leaving the clubhouse the riders headed northward up the Hudson River to Woodstock, where the dinner was served.

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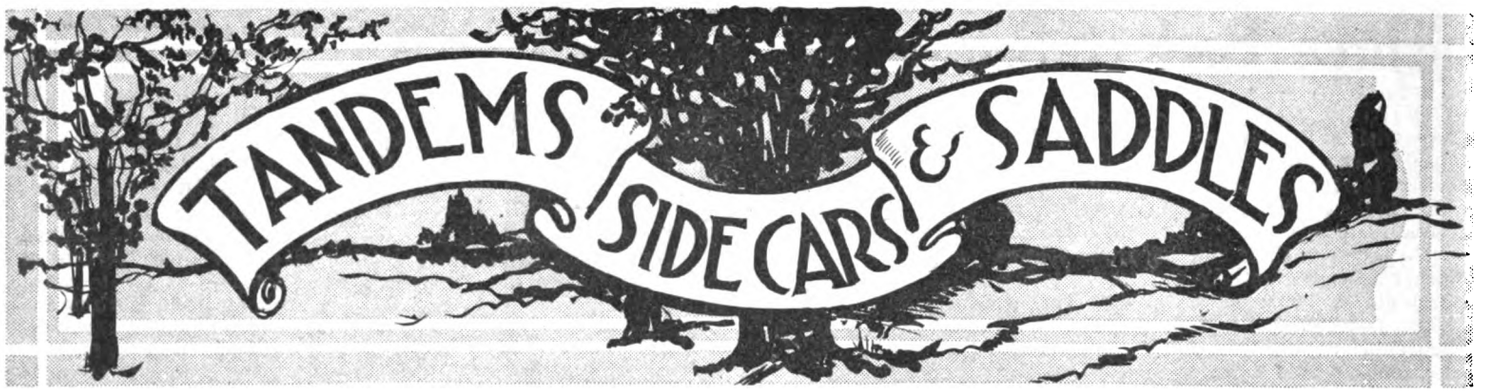

WE had just loaded our after-luncheon pipes on the veranda of a little hotel not more than thirty miles up-state from New York City and my friend Jamison, who has spent five seasons in the saddle, was speaking.

"Don't entertain the idea that the tandem attachment is without friends simply because we are paying more attention to the sidecar than ever before," he advised, "for if you had kept as keen an eye on road developments as I have you would know that the tandem seat is a mighty popular fitting. Some folks who are supposed to be in touch with motorcycledom seem to think that the spread of interest in sidecars necessarily implies a falling off in tandem attachment sales, but I'd like to wager a pair of new goggles that the tandem makers are as busy as the proverbial bee."

Several motorcycles with sidecars had passed while we were sitting on the veranda, and one of our party had suggested that motorcycle passenger-carrying would soon be confined to the third-wheel attachments. Hence the remarks from Old Scout Jamison.

"I'm a full-fledged sidecar booster," he continued, "but I want it understood that I have a good word for the tandem seat too. I believe in taking a broad view of a big sport like motorcycling and making allowances for the preferences of all riders. The tandem has its friends and so has the sidecar, and if we get the idea that either of them is going to crowd the other out of the reckoning we are mistaken.

SPEAKING FROM EXPERIENCE.

"You've had experience with both, of course," remarked the recent recruit, with a sly wink at the other members of our party.

"You can bet I have, youngster," answered the veteran, with another wink, "and if I had a nickel for every mile I've covered either on a tandem seat or in a sidecar I could buy you another spread like the one we've just enjoyed and never miss the money. I've covered upward of four thousand miles, with either or both of our standard motorcycle passenger fittings attached to my machine. I have found that there are trips for which the tandem seat fills the bill in fine shape, and other outings on which I have felt like having a sidecar hooked up with my old chugger. So there you are.

"If a rider is going to invest in a tandem attachment I believe he should buy a good one," he continued, "for such a fitting is subjected to considerable strain and should have the material and the workmanship to stand the pace. The frame of the attachment should be so sprung that the passenger will benefit by resiliency without having to take chances on weakened construction, and there are a number of tandems on the market that are built on just that basis. The actual make-up of the tandem fitting must be left to the individual rider, but I advise him to give special attention to the springing, as mentioned above, the saddle proper and the footrests.

"I do not believe a tandem saddle can be too large, and it should be adjusted with great care. On a tandem trip much of the success of the program depends upon the comfort of the passenger, and he should have the easiest seat possible. Another point: if the springs of the attachment itself are adjustable, they should be tensioned carefully to the weight of the rider. Carrying persons of widely varying weights on one spring tension is foolish if the manufacturer has gone to the trouble and expense of providing for adjustments.

VALUE OF EFFICIENT MUDGUARDING.

Jamison gave his pipe a fresh start before continuing. "And when it comes to the footrests," he said finally, "I rather lean toward the folding type. In the little spill which the best of us will take sooner or later the folding footrest simply doubles up, jack-knife fashion, and escapes being broken—and no other part of the tandem attachment is likely to be damaged at any time. I also believe that the passenger should be supplied with handlebars, but the form and position of these must be left to the person who is to use them. Bars that would suit one rider might prove very comfortable for another.

"Mudguarding is another big item for the tandemite, especially for a woman rider. A woman's skirts should be completely protected from contact with the wheel. Some attachments are supplied with efficient side guards of canvas or leather, and when they are not it is a comparatively simple matter to attach suitable guards at home."

"All that Old Scout Jamison has said about tandem attachments is true," remarked Peterson, the holder of the mileage record in our club for the 1912 season, "but I don't see how I could get along without my sidecar. I always want to carry a lot of luggage on my summer trips, in addition to a passenger, and the third-wheeler gives me the extra room I need. It's surprising the amount of stuff you can stow away in and around a sidecar, if you go about the job carefully.

MAKING THE MOST OF THE SIDECAR.

"The sidecar I bought was not supplied with a rear luggage rack, but I had one made and attached at a small outlay, and in addition to providing for a good-sized case for general luggage it leaves room for a combination toolbox and battery holder. I use electric lighting on the sidecar, and thus avoid trouble when I want to detach the outfit from the machine. A gas tank supplies the motorcycle headlight.

In addition to the material carried on the rear rack I can stow away quite a lot of stuff in the foot of the car itself without bothering the passenger. I always carry a serviceable robe to protect my companion against dust and mud, should we be caught in a shower, and oilskins are also to be found in the sidecar kit. Some of the new model sidecars have neat tops and side curtains, so that travel

Harley-Davidson M. C., of New York City, on a Recent Sunday Outing.

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is fairly comfortable even in rainy weather, and I think I'll invest in one of those when I make a change.

"Once the sidecar is properly attached there will be no trouble, but some indifferent riders hook up a third-wheeler almost any old way and expect perfect service. Very often they don't get it. They're not entitled to it under such conditions. To begin with, the sidecar must be in proper alignment. Its wheel must be parallel to the wheels of the motorcycle. If it is otherwise the outfit will not handle well, extra strain will be imposed and the tire on the sidecar wheel will be subjected to unnecessary wear. No tire can stand up properly if it "toes in" or is continually trying to pull away from the car and run off on a tangent of its own.

"See that the connections are properly figured out, that the strain is being placed on the motorcycle at points where it will do the least harm and that the wheels run true, and any sidecar will stand up to its work month in and month out. If four-point suspension of the sidecar is possible let the rider arrange for it, by all means. Four connecting bases give extra strength and rigidity, but the extra mooring is not essential. I have gone through all kinds of roads with my passenger attachment fastened to the machine at only three points.

GENERAL MAKEUP OF THE SIDECAR.

"I never advise a rider to buy a sidecar that is not easily cleaned," said the mileage record-holder, "for if an outfit is to be kept in presentable condition it will have to be cleaned frequently. Dust and mud are certain to collect rapidly on the sidecar body, and a wicker finish may give some trouble now and then. On the other hand a smooth enamel finish must be treated carefully if its lustre is to be preserved, so the choice is up to the individual rider. All sidecars that are being made by representative firms are well upholstered and stanchly built and no fault can be found with their springing, so that little can be said relative to the selection of a car. The rider who buys from any reliable manufacturer will be safe, for he can always tack on a wrinkle or two of his own if he feels so inclined, and he will find the maker ready to co-operate with him."

"Well," said the recent recruit, as he settled the front legs of his chair on the porch, "I am neither a tandemite nor a sidecarrist, but I am a dyed-in-the-wool motorcyclist, and when you chaps devote so much time to talking about comfort on the road you make me feel like putting in a little of that easy-riding conversation on my own hook. I use a regulation saddle of a make that is known from coast to coast, and if it isn't just as comfortable as Jamison's tandem seat or Peterson's sidecar I'll eat it. It's a broad saddle type, one built on generous and commonsense lines, and it gives me the maximum springing effect without being 'bouncey.' There's a good deal in that. If a motorcyclist is going in for long trips he should see to it that the tension of his saddle springs is just right, neither too stiff nor too weak. A saddle springing system should absorb all serious road shocks, of course, but it should never produce a rocking-chair effect.

THE SADDLE A NO-TROUBLE FITTING.

"There was a time," asserted the recent arrival in the ranks, "when the saddle problem was with us day and night, but in these days it is a simple proposition to obtain a motorcycle seat that will be both comfortable and serviceable. As for the springing, there are several leading systems, differing considerably in make-up but each guaranteeing satisfaction.

"Now and then I see a motorcyclist using a small saddle with a sharp pommel, evidently with the idea that such a seat looks 'really devilish' when the mount is jacked up on the stand somewhere in a public place, but this is a wild notion. Non-riders are more impressed with an appearance of comfort about a motorcycle saddle than with any leaning toward racing types, so it is hardly worth while to use a small, hard saddle in the effort to create an impression. It pays to try out several large well-sprung saddles so that the one best suited to the individual rider may be chosen.

"One more point: it never does a saddle any good to sprint along the road and vault aboard with a thump that strains every part of the old chugger. Machines of today do not require such strenuous methods; the rider is able to take his place in the saddle quietly and purr away without any display of acrobatics. This vaulting business is hard on saddle springs, and it is unnecessary. Therefore, let's cut it out."

Old Scout Jamison looked at his watch. "Holy smoke!" he ejaculated, "we've been gabbing until the best part of the afternoon has gone over the hill. It's almost 3 o'clock. I'm going to streak it for home and any of my friends who feel so inclined are at liberty to fall in."

We knew this announcement meant some excitement on the homeward run, so we were not long in getting under way, but I believe we all benefited, at least indirectly, by our little chat on the veranda, and I would not mind resuming it on some quiet Sunday afternoon.

LIVING UP TO A NAME

IN THE accompanying photograph is shown a salesman who strives to make "Enterprise" something more than a name. He is in the employ of the Enterprise Motor & Cycle Company, of Oklahoma City, Okla., and most of his time is spent on the road, skipping about from prospect to prospect and lining up orders. The photograph is reproduced primarily to show the extremely neat method used by the rider to carry the case which contains his catalogs and other literature. It is fastened on a specially constructed rear luggage rack.

WORK has begun on a five-story addition to the Morgan & Wright Company's plant at Detroit. The new building will be 94 feet by 250 feet and will cost $100,000.

Hendee Mfg. Co., Springfield, Mass. (Indian sidecars.)

Persons Mfg. Co., Worcester, Mass. (Persons saddles.)

Greyhound Motor Co., 1443 Niagara street, Buffalo, N. Y. (Universal sidecars.)

Stanley T. Kellogg, 617 State street, Bridgeport, Conn. (Sturdy luggage carrier, tandem attachment and Presto tank holder.)

Angsten-Koch Co., Englewood avenue, Chicago, Ill. (Spring tandem attachments, luggage carriers, sidecars and commercial vans.)

Empire Specialty Co., 147 Arcade, Cleveland, Ohio. (Empire special spring tandem.)

Motorcycle Co-Operative Co., 653 Woodward avenue, Detroit, Mich. (Tandem attachment.)

National Cycle Accessories Co., Aurora, Ill. ("Anders" sidecars.)

Simplex Machine Works, 45th street and 6th avenue, Brooklyn, N. Y. (Simplex sidecars.)

Bumiller-Remelin Co., Cincinnati, Ohio. (Bu-Rem tandem attachments, crank case protectors, dust and mud shields.)

Star Electric Co., 18 No. May street, Chicago, Ill. (Star luggage carriers.)

Majestic Mfg. Co., Worcester, Mass. (Majestic sidecars.)

Baxter Sidecar Co., 119 Broadway, Cambridge, Mass. (Baxter sidecars.)

Stoll Mfg. Co., 33d and Walnut streets, Denver, Colo. (Stoll-Dream tandem attachments.)

Jenkins & Co., Des Moines, Iowa. (Tandem attachments and luggage carriers.)

L. J. Mueller, 6307-9-11 Woodland avenue, Cleveland, Ohio. (Mueller tandem attachments.)

H. & F. Mesinger Mfg. Co., 144th street and Austin place, New York City. (Mesinger cavalry and standard saddles.)

Aermore Mfg. Co., 1536 Michigan boulevard, Chicago, Ill. (Rogers sidecars.)

Consolidated Mfg. Co., 1730 Fernwood avenue, Toledo, Ohio. (Y-A shock absorber.)

Wm. Katzmann & Co., 367 E. 61st street, Chicago, Ill. (Katzmann Eazy-ride cushions for tandem attachments.)

Bowen Bros., Utica, N. Y. (Tandems, sidecars.)

Fentress-Newton Co., 429 Bagg street, Detroit, Mich. (F-N combination tandem attachments, F-N back rests, lamp brackets, extension nuts, etc.)

Troxel Mfg. Co., Elyria, Ohio. (Troxel saddles, tool boxes, etc.)

Trio Equipment Co., 2162 W. 29th street, Cleveland, Ohio. (Tandem attachment and back rest.)

J. A. Osborne Mfg. Co., Hammondsport, N. Y. (Osborne tandem attachment and luggage carrier.)

SILSBY WILL HANDLE YALE

I. H. SILSBY, agent for the Flying Merkel in Cleveland, Ohio, has also contracted to sell the Yale. Herman Sill, a well-known rider of Cleveland and an expert repairman, has been placed in charge of Silsby's repair department.

A MEMBERSHIP OF 403 is claimed for the Toronto Motorcycle Club, of Toronto, Ont.

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KEEPING the SPEEDOMETER in TRIM

T.D.M

THERE having been a shake-up in the police department in the city where our club has it headquarters, quite a number of the members had been summonsed for speeding so as to show the "men higher up" that the motorcycle cops were on the job. Our club treasurer went about with a melancholy air, for with brother riders shelling out at the rate of five plunks each, the club dues were extremely likely to suffer. Most of those that paid toll to the city took it as a matter of course, but several disconsolate ones still grouched over the fines. The talk soon came around to speedometers, as several defenses on speedometer indications had been broken down by the officials and the unfortunate ones fined more heavily than those that pleaded guilty.

"That's the trouble with a front-drive speedometer," said one of the grouchy riders. "When I was riding up the avenue, the holes in the asphalt made the hand wig-wag like sixty. There was a blur there, and I knew I was going somewhere between 11 and 44 miles an hour, so when Jones nabbed me it was all off. He swore to 30, and I had to let it go at that. 'Five good round iron men,' said the judge, or words to that effect. Now I neither am sure how fast I went nor how far I've been since I put the meter on."

"The flipping to and fro of the hand only helped out the cop," said the secretary. "The meter I have rigged on the front of my machine was steady as a die, but when I showed my maximum hand at 15 miles, the judge's argument in rebuttal, as the lawyers say, was 'seven dollars!'" The secretary turned to the previous speaker. "You say that the hand of your speedometer vibrates," he remarked. "How have you got the meter rigged on?"

FRONT AND REAR DRIVES.

"The usual way," answered the melancholy one, "gear-ring on the wheel, pinion on the moving fork member and meter on the bar. I oil the sliding parts regularly, but the hand still wobbles badly when the roads are rough. I guess it's the meter that needs refitting; I'll take it over tomorrow to the works."

"If you must have the meter driven from the front wheel, why not fit a flexible drive of some sort," argued the secretary. "As far as following a Blue Book or route card is concerned, you need a front-drive instrument. There's no slip to a front wheel, and where it comes to tenths of a mile in unknown places and there are two crossings close to each other, an error in the meter may send you on the wrong road. Ask our honorable vice-president there; he's got a rear-drive meter." "And both stand and road mileage, too," said a voice. "Lots of the former."

"There may not be any slip in a front wheel, but it must also be admitted that there is no wobble in a rear wheel speedometer," said the official just maligned. "As to the question of stand mileage, I have a cluch in the shafting which I have conscientiously tried to release every time the machine has been put on the stand. So successful have I been with this clutch that I rode over 20 miles at one time without reengaging the clutch and got no record of speed or distance whatsoever. Consequently, I think that the charge of counting in stand mileage is unfair.

"It depends upon the speedometer itself, it seems to me," he continued. "There are some instruments that will get wobbly as soon as wear of any kind occurs, while others seem to give steady readings after they have been in hard service for months at a time. If anyone were to ask me what speedometer he should buy, I might tell him the name of one that I use, but if he wanted a front drive one, why, there are lots of good ones.

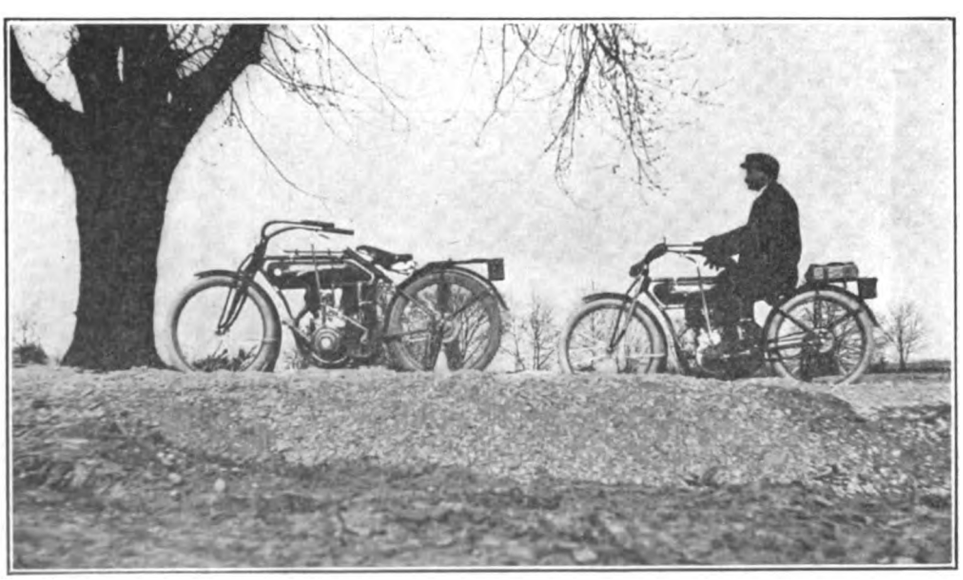
REASONABLE ATTENTION NEEDED.

"Then there's the human end of it. Provided the rigging is made all right, and the instrument is good, it's up to the rider to take care of the whole apparatus. The meter needs no oiling, so the care should be given the driving mechanism. If a shaft is used, the casting should not hammer or pound any part of the motorcycle and a little lubricant will not do the gearing and shaft any harm; neither will keeping it free from dirt and water. By lubricant, I mean something that lubricates, and this lets out vaseline, which is only a rust-preventer.

"You can't do anything with a badly-worn speedometer nor with one that is badly built. The best way, particularly if you are going to tour, is to get a reputable instrument and have it fitted by the makers. if possible, or their agents. In running with it for some little time, you will get to know what its errors are. Quite a few of them have some trifling error or other which develops in course of time. My particular instrument is two miles per hour too fast and about 100 yards out in three miles. Neither of these errors is serious, unless I am to be judged by my speedometer hand for speeding.

ON OHIO'S DAMAGED ROADS

BECAUSE of the recent floods in Ohio, miles and miles of what formerly constituted excellent highways have been totally destroyed. Motorcycle tourists, therefore, will do well to steer clear of the Miami Valley and other affected parts of the state. In many places temporary roads have been built, a sample of which is shown in the accompanying photograph. F. L. Valiant, advertising manager of the Miami Cycle & Manufacturing Company, recently traveled fifty miles through the flood zone and reports that the roads were in such bad condition in places that it was necessary to push, even with a two-speed machine. Numerous bridges are down.



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"When you fit a speedometer," continued the club president, "see that the gearing will run equally well forward or backward, and examine it regularly to see that nothing has slipped out of place. The meter is a good check in all kinds of riding, for if you find that you go only so many miles per gallon one day and less over the same route later on, something may be wrong with the bus, which you wouldn't have found out until you, possibly, found it disabled. It is the same with speed as with mileage per gallon."

"I judge that you're strong for centrifugal speedometers, but would you recommend a magnetic drag instrument?" asked the secretary.

"Personally, I would not," answered the president, "as I haven't much faith in them. In all fairness, though, I know of fellows who have had excellent service out of such meters and were more than pleased with them. This refers to the first-class article only, of course. Between a badly-built centrifugal meter and a magnetic one in the same class, there's mighty little to chose. Then again, there are new models of magnetic meters coming out regularly, and as I cannot afford to rig up my bus with three or four meters at one time I am unable to say anything about them from experience. Maybe after I had used one of them I might have more confidence than I now have in them as a class."

A WORD FOR THE MAGNETIC TYPE.

"You have a curious method of arguing," remarked the secretary. "You say you wouldn't recommend one fitting because you haven't much faith in it, and then you turn around and say that with recent improvements taken into consideration you may be wrong about the whole business."

"I think that's quite right and stick to it," said the president. "I can't try out everything, and because I prefer one principle is no reason for saying all other principles are bad. The latter brand of argument I leave to young riders with powerful twins and a mania for high-speed runs over short distances. I'm not arguing to carry my point in a contest of words."

"Well, I've used a magnetic type meter for over a year and have had satisfaction from it," replied the secretary. "It is compensated for temperature changes and front-rigged with a flexible shaft drive and I must in fairness say a good word for it."

Corbin Screw Corporation, New Britain, Conn. (Corbin-Brown speedometer.)

Stewart Speedometer Factory, 1942 Diversey Blvd, Chicago, Ill. (Stewart speedometer.)

Standard Thermometer Co., 65 Shirley St., Boston (Standard Speedometer).

THE MONDEX-HELIX MIXER.

MOTORCYLISTS who are giving attention to gasoline economy and the obtaining of maximum results from their fuel mixtures will be interested in a neat little booklet that has been issued by the Aristos Company, 250 West Fifty-Fourth street, New York City, telling the story of the "Mondex-Helix" mixer. This device is credited with breaking the fuel particles to unusual fineness and thus diffusing them thoroughly and evenly with the air. The result is a mixture of remarkable efficiency with which the motor is enabled to put forth its best efforts at all times and with minimum gasoline consumption. The Mondex-Helix booklet is worth having. It tells the whole story in interesting form.

WITH PASADENA RIDERS

MORE than 100 motorcyclists of Pasadena, Cal., participated in the first run of the season, held under the auspices of the Pasadena Motorcycle Club. The course was through Hollywood, Lankershim, Owensmouth, Van Nuys and Calabasas to Topango Canyon, noted for its beautiful scenery. The return was made by way of Santa Monica.

Twenty members of the Pasadena Club are planning to take part in the Sunset Ramble with 300 members of the Los Angeles M. C. This run, which is to cover ten days, will bring the riders through San Francisco and other points of interest in the northern part of California. Part of the time will be passed at the State Convention of the California State F. A. M., to be held in San Jose. Leo Owen, of Pasadena, who is State F. A. M. commissioner and president of the State organization, will preside at the convention.

MOTORCYCLISTS of St. Cloud, Minn., are planning to place route signs on the roads leading from their city.

ECLIPSE CLUTCH SUITS

IT IS believed that at least one of the cases instituted by the Eclipse Machine Co., of Elmira, N. Y., for alleged infringement of the Ellett patents covering multiple disc clutches will be disposed of in June. The Eclipse company is seeking injunctions and damages in a Pennsylvania case against the Hendee Mfg. Co. and George S. Maslen, the latter handling the Indian machines in Philadelphia, on the ground that the Ellett patents have been infringed by the defendants in the manufacture and sale of Indian motorcycles. The New Jersey case is against Walter Goerke, Indian agent in Newark, and the New York action is against Arthur H. Patterson, who distributes Indian products in Brooklyn.

It is understood that in these cases the Eclipse Machine Co. claims that the inventions covered by their patents have largely advanced the motorcycle industry by making an effective multiple disc clutch available, and that therefore its rights broadly cover motorcycle clutches of that type. The Eclipse Company is represented by Lawyer Archibald Cox, of New York City.

BROOKS BACK FROM THE SOUTH

C. B. BROOKS, of the Twentieth Century Mfg. Company's hustling staff, has just returned from a successful trip through the southern states, where he found the outlook brighter than ever before in the motorcycle and accessory field. After a day or two at the headquarters of the company he started on another business journey which will carry him through all the larger cities in the States of New Jersey and Pennsylvania.

AT AN average cost of $13.20 per year a policeman of Somerville, N. J., claims to have ridden his motorcycle more than 14,000 miles during the past three years.

PATHFINDER PLANT BUSY

LATE reports from the headquarters of the Pathfinder Lamp Company, 149 North Fourth street, Columbus, Ohio, are to the effect that the demand for its motorcycle product is exceeding all expectations. The Pathfinder company succeeds Bennett & Morse, and has already perfected an organization that insures a continuance of high-class manufacturing methods and of prompt deliveries.

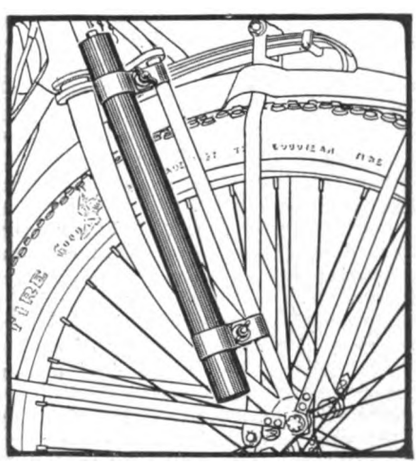
The Pathfinder lamp has a body that is hand-made from one piece of heavy-gauge brass. The front door is of spun brass, hinged, and is fitted with a removable glass 5½ inches in diameter. The rear door is also hinged and the handle by which the lamp is turned on its swivel base is riveted to the double-reinforced back. The swivel feature is a novel one in motorcycle lighting. The lamp is so mounted that it may be turned to throw a beam to the side of the road as well as directly ahead. The burner is of German lava on a one-piece cast holder and is adjustable for focusing. The brackets are neatly designed and an individual pattern is provided for each standard make of motorcycle. All parts of the lamp and brackets are heavily nickeled.

MERKEL SUB-AGENCIES

P. I. HAYNES & CO., of Chestnut and Fourth streets, Columbus, Ohio, distributors for the Harley-Davidson, announce the following sub-agencies: Arnold & Bowers, Raymond; Reese & Miller, Plain City, and G. W. White, Delaware.

AUXILIARY FUEL SUPPLY.

ONE of the latest motorcycle accessories is the Non-Push Gasoline Tube, which has just been placed on the market by the Parisian Novelty Company, of Chicago, a firm that has specialized on machinery and tools for years past. The Non-Push tube weighs about 16 ounces and will hold enough gasoline to run a motorcycle eight to ten miles. It can be attached to any make of machine by self-adjusting brackets which are furnished with it.



The new product will no doubt be welcomed by riders who have been compelled to push their mounts to a garage when the tank supply of fuel was exhausted on the road, and it also helps to solve the transportation problem. There are many other conditions under which the Non-Push tube would prove very valuable, and that it will meet with a ready sale seems certain. Full information can be obtained by addressing the Parisian Novelty Company.

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Fifteen Riders Finish Newark M. C. Run

OF THE twenty-six riders who started on the 200-mile reliability run of the Newark Motorcycle Club, of Newark, N. J., fifteen signed the final checking sheet shortly after 6 p. m. Sunday, May 11. Eleven of the fifteen riders finishing the run were members of the New Jersey M. C., of Newark. A few of the survivors believe that they came through without demerits, but the official announcement has not yet been made. The start was made from the club headquarters, Broad street and Belleville avenue, and when Allentown, Pa., the turning point of the run, was reached, twenty of the participants were on hand.

The roads throughout New Jersey were good with few exceptions, but in Pennsylvania the going was bad, and especially so from Easton to Allentown. At Easton the party was met by a delegation of fifty members of the Allentown M. C. There were four secret controls, three of which were located at Pine Brook, Hackettstown and Chester, while the fourth was a roving one, looked after by William James, the referee.

Those finishing the run on schedule time were: Herbert A. Weakliem, William Sincox, Joseph Hester, Mr. and Mrs. S. E. Holten, Watson J. Klueczk, P. Wilmer Stevens, G. H. Riechey, O. W. Stevens, Edward MacDougall, H. Gertenner, Carl Bush, Andrew Bohsen, Seth Eberhardt and William Allen. All of the withdrawals from the run were due to breakdowns. Mrs. S. E. Holten, who finished the run, was the only woman entrant.

HENDEE MAKES DONATION.

THROUGH Howard French, of Baltimore, the Hendee Manufacturing Company has subscribed to the Legal Action Fund of the National Capital Motorcycle Club the sum of $25 to be used in the club's fight to determine what rights a motorcyclist has in the use of his property. This fight has been going on since January 6 last, and no doubt will be quite long drawn out, as it is recognized by both the club and the District of Columbia authorities that the case will set a precedent for country-wide use.

The Legal Action Committee of the club is hampered in the fight by the fact that there are practically no precedents which can be cited in this case, and a decision as to the unreasonableness of the local police regulations is hard to secure on account of the unfamiliarity of the presiding judges with the subject of motorcycling.

THIEM CONVERSION SET

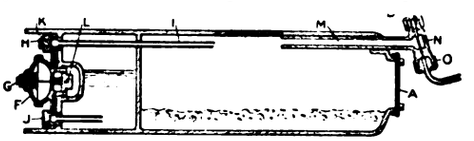
ONE OF the most interesting offerings recently marketed for the motorcyclist is the Thiem Conversion Set by which any standard belt-driven machine may be equipped with a planetary system of two-speed and free-engine transmission. It is sold by the Perfection Two-Speed Hub Co., of Fairfax, Minn., and is designed, as the name implies, to meet the requirements of the rider, whose mount is not originally fitted for two speeds. The company's slogan "It's all in the hub and starts with a crank" tells part of the story, and the remainder is embodied in a neat booklet that will be sent upon request.

In making the attachment of the conversion set it is necessary to do away with the original rear wheel, pedals, etc., and to widen the rear forks about one inch. The fitment adds less than ten pounds to the weight of the machine, is noiseless in operation, permits of coasting free with engine and pulley rim dead, picks up the spark instantly and gives no shock in gear changing. The device can be locked in high and the machine pushed along to start, without using the crank. When starting on the stand on high gear it is cranked direct, on the right side, but when starting on the ground in free position the crank is operated on the left side and rearward through the gears. In operation the axle travels forward with the rear wheel when in high; is held stationary when in low and revolves backward when free. Thus the gears are never out of mesh.

MEMBERS of the Shelbyville (Ind.) M. C. recently made a Sunday run to Connersville

SIMPLE LIGHTING TANK

AN unusually compact tank for motorcycle lighting purposes has recently been placed on the market by the Tank O'Gas Company, of Portland, Me. One of the most interesting features is that the tank may be recharged by the user without difficulty and more economically than an ordinary generator. The tank is made in two sizes for motorcycle service, one type weighing seven pounds and the other five. When the tank is to be refilled it is stood on end, the cap A is removed and about two pounds of carbide are placed in the receptacle.



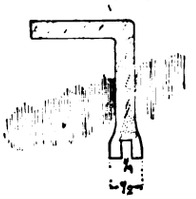
The tank is then inverted and the nut B is removed to permit of filling another chamber with water. The nut B is replaced firmly and the tank is placed horizontally with the valve D upward. An air pump is then attached at the valve C and the tank is supplied with a light air pressure. After this it is ready for use, and is attached to the motorcycle at a convenient point, with the valve D upward. The working pressure may be varied by adjusting the headless screw G.

FREED INCORPORATES

A. FREED, of San Francisco, Cal., Pacific coast distributor for Thor motorcycles, has incorporated under the name of the Pacific Motor Supply Company. Mr. Freed has been called upon to make extensions of late in order to keep pace with the heavy demand for 1913 Thors on the Coast.

NEW MECO OFFERING

"WE HAVE made it a rule not to catalog an accessory unless it has merit and not to manufacture a part unless it is badly needed by motorcyclists," writes the Motorcycle Equipment Company, of Hammondsport, N. Y., "and working on this basis we have decided to add to our list the Meco clutch adjuster for Indian motorcycles. As there is no screw-driver on the market suitable for clutch adjustments, and riders are frequently reminded of the need of one, we believe the latest Meco offering will find a ready sale. It retails at 25 cents, with a discount to the trade."



BOSCH MAY GIVE TROPHY

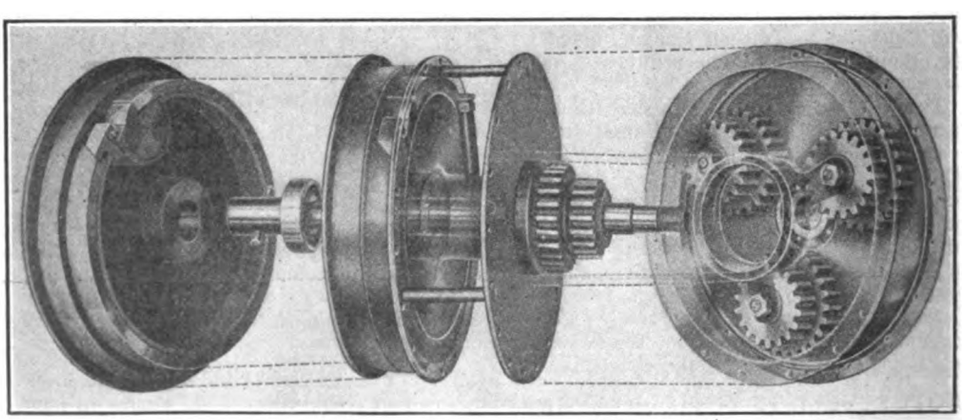
MOTORCYCLISTS throughout the country, as well as speedsters who intend to compete in the championship events at the coming F. A. M. convention in Denver, will be interested in the statement that the Bosch Magneto Company is likely to give another handsome trophy for the amateur rider showing the highest score for the series of races. The company has not made a definite announcement as yet, but it is strongly intimated that the record-chasers will once more be given an opportunity to strive for combination honors, the amateur title and the Bosch trophy that goes with it.

NEW SIMPLEX PLANT

IN ORDER to obtain better manufacturing facilities the Simplex Machine Co. will move from its old headquarters in Brooklyn, N. Y., to a larger plant at Forty-first street, near Third avenue, in the same city. In the new quarters the firm will have double the floor space that was available in the old factory, and it will be possible to make extensions in all departments. The company is giving special attention to its delivery vans, for which there is an unusual demand, and a number of congratulatory letters have been received from firms that are using the vans in light commercial service.

JOHNSON HAS RECORD WEEK

FROM the Frank D. Johnson Company, of 660 Main street, Worcester, Mass., comes the announcement that the company has just made a record for a week's deliveries by shipping 25 machines. Mr. Johnson has been forced to put in some overtime work in order to keep abreast of the demand for Indians in his territory.



Thiem Conversion Set, Arranged to Show Operating Parts.

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BUYING LAMP INSURANCE

By Rodman Barry

WHEN I speak of "Buying Lamp Insurance" I may not be shooting my idea across with the Socratic directness to which I have accustomed you in previous articles (boy, page Mr. Socrates and slip him our apology) but I am using those three words because they really tell a big story for the motorcyclist. When a rider invests in a reliable lighting system for his machine he is purchasing the finest kind of insurance, an even better brand than we receive from the big companies when we take out standard policies, for the latter simply protect us against loss after the trouble has occurred, while a dependable lamp wards off the trouble. Thus it may be regarded as a means of genuine insurance.

So persistently has the lamp doctrine been preached of late that riders must be few indeed who fail to recognize the importance of the lighting system, so that this phase of the situation need not be dwelt upon here. Instead it will be the aim to discuss from a non-technical viewpoint some of the ordinary questions that present themselves to the rider who is equipping his mount with a lighting outfit. The average rider of today is somewhat at sea as to whether he should buy a tank, generator or electric system, and on a recent visit to the leading agency in our town I decided to probe the proprietor for a little inside information along these lines.

"Are there any hard and fast rules to determine which system will give best results in general service?" I asked.

"Not a single rule," was the reply. "I have satisfied patrons among users of each of the systems, and if you talk with these riders you will find that each one can point out advantages in the form of lighting he uses. Therefore it is unfair to attempt comparisons. The main idea should be to purchase the lighting outfit from a reliable manufacturer or dealer, and to follow instructions closely for fitting and operating it. The maker of a lamp knows the conditions under which his product will give greatest satisfaction, so that it always pays to accept his advice. Buy a good lamp in the beginning and then give it reasonable attention to keep it good.

FITTING THE LIGHTING SYSTEM.

"I find that the average rider is not as much puzzled in the selection of a system as he is in fitting it to his machine," continued the dealer. "It may seem like a simple proposition to attach a lighting plant, but the careful motorcyclist knows that there are quite a few points to be kept in mind. If a tank or separate generator system is used care must be taken to place the source of supply so that it will not disfigure the machine or be exposed to serious damage in a spill, and so that the pipe line will not be in the way. If a close-coupled lamp and generator are used the problem is somewhat simplified.

"There are a number of suitable places for fitting a gas tank on the standard motorcycle, and the selection of one is largely a matter of individual choice. The tank may be placed on the top tube, just back of the steering-head; on the front mudguard; across the handlebars; on the fork or on the luggage-carrier. There may be other positions but those mentioned are the ones commonly used. I prefer the top-tube position, for several good reasons. When the tank is in that position it does not affect the balance of the machine, is not noticeably in the way and is easily connected with the lamps. It is always well to keep in mind that a gas tank placed on the front fork or across the handlebars may affect the balance or steering of the mount. The luggage-carrier position does not affect balance, but is not always handy. Still there are several neat and economical devices now on the market by which a tank can be carried on the luggage-carrier if the rider does not favor the top-tube position.

HOW TO AVOID TROUBLE ON THE ROAD.

"What about the electric system" I inquired. "Do riders experience any trouble in fitting one, as a rule?"

"I have not heard of a case where difficulty was encountered," answered the dealer, "but it should be stated that the rider will do well to follow instructions and not experiment to any extent on his own account. The motorcyclist who is interested in the electric system will find practically all of his problems solved in an article by William Hetherington, Jr., that appeared in April 17 issue of MOTORCYCLE ILLUSTRATED. This writer discussed the electric outfit in all its phases, and showed practical diagrams for wiring and fitting the lamps.

"Once the electric system is properly wired and the lamps adjusted it is not likely to give trouble on the road. The same may be said of the tank and generator outfits, but I believe the latter will require a little more attention to keep them at their best. For example, the rider should always see to it that the water in his generator is as high as possible when leaving home for a trip, and that it is renewed for each run. The latter operation implies opening the drip valve to drain the old water off. Adherence to these rules will help to keep the generator up to the mark. When the machine is put up for the night the carbide chamber should be removed from the generator, the sides should be scraped and the whole interior wiped dry. Then the carbide supply in the basket should be attended to and the water chamber refilled. The lamp will then be ready for service again as soon as the water is turned on."

MOTORCYCLE LAMP SIZES.

"Some of the motorcycle lamps I notice these days are almost as large as those fitted on automobiles," I remarked. "Do you favor an exceptionally large lamp for the single-tracker?"

"There is a limit, of course," answered the dealer, "but I prefer seeing a lamp oversize rather than the other extreme. The rider cannot have too much light on his night trips. He should also focus the beam so that it reaches ahead as far as possible for country road work, while a more diffused light is advisable for town service. Then there is the matter of care for the burner. If the flame is turned too low carbonizing will follow and the tip will be clogged, while a flame turned too high may crack the reflectors. There is a happy medium and the rider should adhere to it. It will pay him to do so.

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"I noticed a tip in one of the trade journals recently," continued the agent, "that may be found worth while on some foggy night. If difficulty is experienced in seeing the road ahead the lamp should be tilted downward as far as possible (care being taken not to bring the flame too close to the reflector), or a piece of cardboard may be used to throw the rays toward the road. Ordinarily the rays are projected in all directions and those rising upward in front of the rider interfere with his vision ahead, especially when there is fog. I regard this as a valuable tip, and it will pay the rider to try it when caught in foggy weather.

"There is one general suggestion that is always applicable," said my friend the dealer, as I pulled on my gauntlets and moved toward the door, "and that concerns the advisability of buying the lighting outfit from a reliable firm. A good lamp is always worth what is paid for it, and economy in lighting may be carried too far. Pay a fair price and then give the lamp such attention that it is always ready for service. You may not count upon night riding when you leave home, but you may need the lamp before you return, and it should be in condition for efficient service. A poor light may be almost as dangerous as none at all, and with our up-to-date illuminating outfits there really is no excuse for poor lighting."

Prest-O-Lite Co., 246 E. South street, Indianapolis, Ind. (Prest-O-Lite tank.)

Badger Brass Mfg. Co., Kenosha, Wis. (Solar Lamps.)

20th Century Mfg. Co., 420-22 Ogden street, Newark, N. J. (20th Century motorcycle and bicycle lamps.)

Rose Mfg. Co., 933 Arch street, Philadelphia, Pa. (Neverout oil lamps.)

Victor Auto Parts Co., Cincinnati, Ohio. (Victor lamps.)

Bumiller-Remelin Co., Cincinnati, Ohio. (Bu-Rem electric lighting outfit.)

Hawthorne Mfg. Co., Bridgeport, Conn. (Old Sol, gas and and electric lamps.)

Jenkins & Co., Des Moines, Iowa. (New-Lite electric lighting outfit).

Motor Car Equipment Co., 55 Warren street, New York City. (Motorcycle lamps.)

Pathfinder Lamp Company, 149 No. 4th street, Columbus, Ohio. (Pathfinder.)

Carbo Light Sales Co., Anderson, Ind. (Carbo-Lite tank.)

Ye Motor Shop, Connersville, Ind. (Bullet electric headlight.)

Tank O'Gas Co., Portland, Me. (Tank O'Gas.)

Indiana Lamp Co., Connersville, Ind. (Luna lamp.)

Marburg Bros., 1788 Broadway, New York City. (Lucifer electric lighting outfit.)

Fidelity Brass Mfg. Co., 730-38 W. Monroe street, Chicago.

TRENTONIANS TO ASBURY

MOTORCYCLISTS of Trenton, N. J., made a Sunday run to Asbury Park on May 4. There were only 18 riders in line for the start, but others joined on the route.

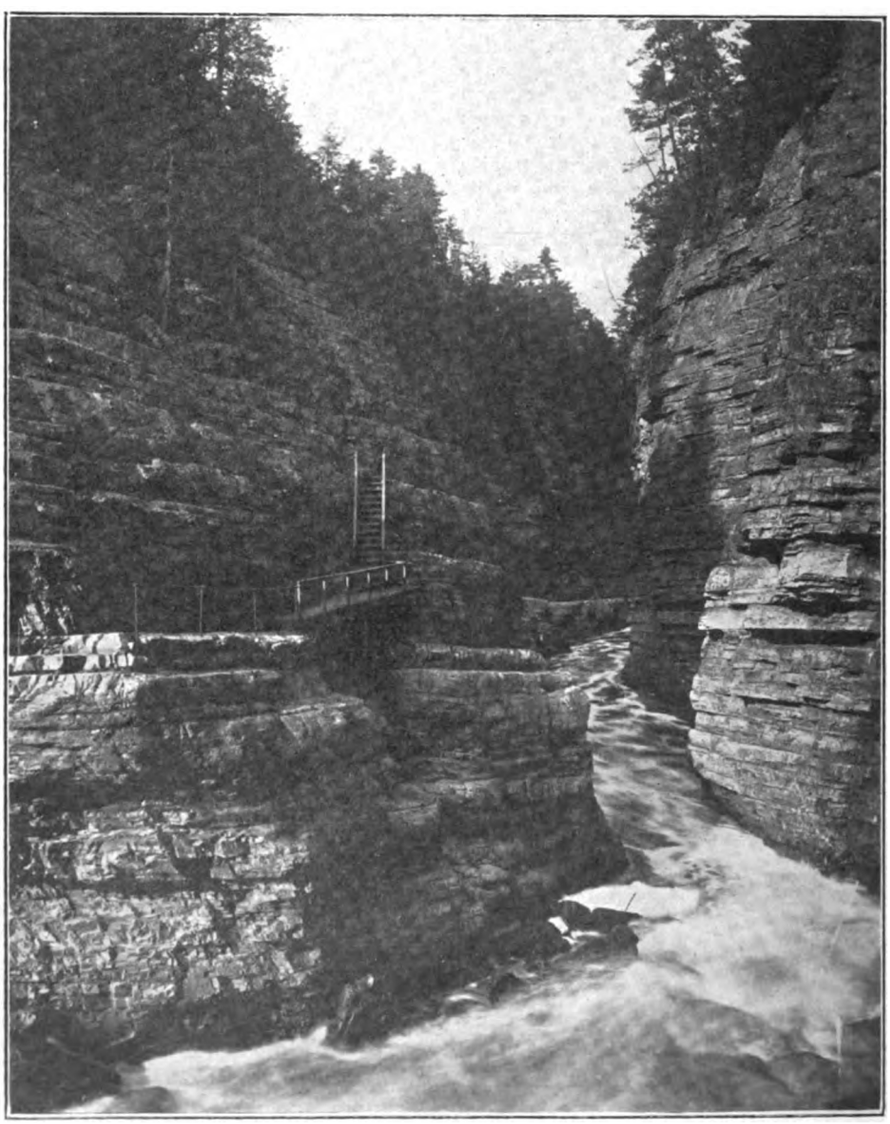
How the Tourist May Reach Ausable Chasm

ONE of the chief points of interest in northeastern New York state is the deep chasm formed by the Ausable River on its way from the heart of the Adirondacks to Lake Champlain. Picturesque throughout its entire length, at this point the river tumbles down a gorge worn through solid rock on one side so precipitous that no one attempts to scale it, though on the other side a series of steps have been built, as shown in the illustration. In summer this is a favoriate spot for visitors, most of whom come to Port Kent by the D. & H. R. R. or by boat, and then go inland four miles by the Keeseville, Ausable Chasm and Lake Champlain R. R., a rather high-sounding name for an electric line with a total length of only six miles.

Neither one of the trunk-line highways north and south on the New York side of Lake Champlain passes the Chasm; but it is easily accessible from either. Going north on the through route from Saratoga, Glens Falls, Schroon Lake and Elizabethtown, you cross the Ausable line at Keeseville, and ordinarily take the left-hand road at the prominent fork beyond, which becomes the State road through Peru to Plattsburg. To reach the locality shown in the picture, take the first right-hand road beyond the bridge, coming to the hotel grounds, which are on high ground not far from the gorge. Here it is best to leave your motorcycle and make the rest of the trip on foot, or, if convenient, by the hotel bus.

One planning to continue north to Plattsburg will ordinarily do best to return to the State road just out of Keeseville, because that gives unbroken macadam through Peru. There is, however, another route nearer the lake, which is all right in dry weather, but inadvisable in wet weather on account of the clay. This option would not require going back to Keeseville, but takes a rather circuitous route from Ausable Chasm through Valcour.

Motorcyclists using the Lake Champlain boats from points below, bound for Ausable Chasm, will ordinarily land at Port Kent, taking the main road west, following the general line of the electric railway to the Chasm. Of course, the option already referred to—going north via the State road through Peru or via Valcour—still holds good.



Ausable Chasm, N. Y., a short distance from Lake Champlain and well worth a visit.

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Bosch Plugs

AS GOOD AS BOSCH MAGNETOS

WHEN an accessory has performed so consistently and is considered the zenith of perfect construction it is the standard by which all others are judged; it is the accessory which you, as a careful motorcyclist, should choose.

The Bosch Plug is such an accessory.

Bosch Plugs have won more important racing events than all other spark plugs combined. In the 14 prominent automobile road races of 1912 Bosch Plugs were used by every winner—14 long trying contests—14 proofs of superiority.

The tests included the

Vanderbilt Cup	**500 Miles Sweepstakes**
Grand Prize	**Tacoma Races**
Elgin Trophy	**Aurora Trophy**
Santa Monica Races	**World's Auto Road Record**

But why should these excellent performances interest you, a motorcyclist?

Because: When the majority of prominent racing drivers and manufacturers entering cars in important road races use one make of plug, you can be absolutely positive that reliability and efficiency are in that plug to the utmost degree. You can be assured of the Bosch Plug meeting every requirement which you might intentionally or otherwise impose upon it.

You make no mistake when you buy Bosch Plugs.

13,332 Bosch Motorcycle Magnetos SOLD in April

$1.00 EACH

Obtainable from most dealers, but if they have not stocked as yet can be obtained prepaid on receipt of price, from Bosch Magneto Company or Branches.

WRITE FOR
"Locating the Spark Plug"
A FREE BOOK SENT ON REQUEST

BOSCH MAGNETO COMPANY
206 WEST 46th STREET, NEW YORK
CHICAGO :: DETROIT :: SAN FRANCISCO

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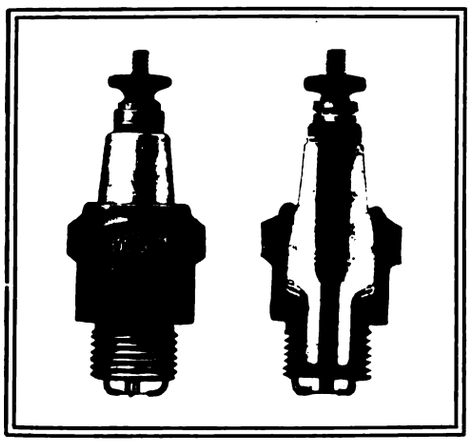
BOSCH MOTORCYCLE PLUGS.

IN THE accompanying illustrations are shown two views of the latest Bosch spark plug for motorcycles, constructed along the lines of the famous Bosch plug for automobile service. The plug illustrated has several distinguishing features, among them being the knife-edged, crescent-shaped electrodes which cause the spark to jump across the gap in the form of a ribbon of flame instead of a thin line from a point to a point. In this way the effective surface of the electrical discharge is considerably increased and the gas is ignited more rapidly.

Another advantage of the Bosch electrodes is that they offer minimum electrical resistance; the spark jumps more readily across the gap and easier starting of the

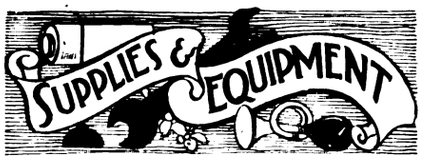


motor is thus obtained. Sooting of the Bosch spark plug, even when the motor is operating under adverse conditions, is practically impossible because the electrodes are kept at a high temperature and the oil splashed upon them is quickly burned away. Careful experiments have shown that there is no danger of pre-ignition, this detail having been taken care of in the general design of the plug. The Bosch plug is made gas-tight without the use of wedge-shaped nuts, packing washers, etc., a special metallic packing being utilized and a pressing over of the steel body under very heavy hydraulic pressure insuring complete satisfaction. The Bosch plugs are supplied in ½ in., ⅞ in. and metric sizes, and also in a special metric size for motorcycles.

CANADIAN REGULATIONS

INFORMATION comes from S. D. Dunn, Indian dealer at 35 Main street, east, Welland, Ontario, that motorcyclists with American machines may, after making representation to the department at Ottawa, enter Canada as tourists, by depositing $10 and giving a personal bond for the return of the machine. The money is returned when the tourist leaves Canada. This is about the same arrangement as the United States customs officials make with riders of foreign machines entering the United States. Mr. Dunn extends to American riders who cross at Buffalo a cordial invitation to stop at Welland, which he calls the "liveliest, fastest-growing, and busiest little city in North America."

AFTER riding his motorcycle for two years, E. E. Castle, of Reckemeyer, Ill., states that his total expenditure for repairs was the outlay for two piston rings.



Consolidated Mfg. Co., 1730 Fernwood avenue, Toledo, Ohio. (Drop forgings.)

Standard Co., Torrington, Conn. (Standard pedals, Diamond "E" spokes, etc.)

Persons Mfg. Co., Worcester, Mass. (Persons tool boxes, etc.)

Motorcycle Equipment Co., Hammondsport, N. Y. (Meco motorcycle supplies.)

The Aristos Co., Dept. R., 250-8 W. 54th street, New York City. (Mondex-Helix gasoline mixer and economizer.)

F. W. Spacke Machine Co., Indianapolis, Ind. (DeLuxe motors.)

Sidney B. Roby Co., Rochester, N. Y. (Bicycle and motorcycle sundries.)

Angsten-Koch Co., Englewood avenue, Chicago, Ill. (Motorcycle locks, pulley lagging, lamp brackets, riding outfits and other supplies.)

Standard Welding Co., Cleveland, Ohio. (Frame parts, rims, pulley rims, mud guards, etc.)

Clark Vulcanizer Co., Columbia building, Columbus, Ohio. (Clark vulcanizers.)

Fulton-McCutchan Co., 1146 Michigan avenue, Chicago, Ill. (Speedler gasoline mixer and economizer.)

Motorcycle Co-Operative Co., 653 Woodward avenue, Detroit, Mich. (Motorcycle supplies.)

Electric Welding Products Co., Cleveland, Ohio. (Motorcycle valves.)

Moller Bros. Controller & Economizer Co., 700 Betz building, Philadelphia, Pa. (M & M gasoline mixer and economizer.)

Universal Machinery Co., 1913 St. Paul avenue, Milwaukee, Wis. (Mighty Mack motor.)

Motor Car Supply Co., 1453-55 Michigan avenue, Chicago, Ill. (Supplies.)

Oberwegner Motor Co., Toledo, Ohio. ("O. M. C." supplies.)

F. A. Hardy & Co., Dept. F., Chicago, Ill. (Autoglas goggles.)

Jenkins & Co., Des Moines, Iowa. (Motorcycle supplies.)

Wilson Novelty Works, So. Clinton and Quincy streets, Chicago, Ill. (Motorcycle and bicycle adjustable mud guards.)

Sauffley Supply Co., 622 E. 15th street, Kansas City, Mo. (Motorcycle supplies.)

Motor Car Equipment Co., 55 Warren street, New York City. (Motorcycle supplies.)

Spiegel Art Co., 111 Broadway, New York City. (Pennants.)

Mott Wheel Works, Utica, N. Y. (Mott steel rims.)

Billings & Spencer Co., Hartford, Conn. (Forgings, pliers and other tools.)

Waterbury Hardware Co., 414 Broadway, New York City. (Waterbury motorcycle lock.)

Hydraulic Pressed Steel Co., Cleveland, Ohio. (Sprockets.)

Atlas Specialty Mfg. Co., 557 W. Jackson Blvd., Chicago, Ill. (Tool rolls, dust guards, luggage carriers, etc.)

F. A. Baker & Co., 10 Warren street, New York City. (Motorcycle supplies.)

Hub Cycle Co., 14 Portland street, Boston, Mass. (Fitsall lamp brackets & general supplies.)

Stevens & Co., 375 Broadway, New York City. (Stevens pedals and Bluemel's celluloid frame pump.)

Motorcycle Manual, 124 pages, 25 cents, postpaid; published by MOTORCYCLE ILLUSTRATED, 51 Chambers street, New York City.

Racine Foundry Co., Racine, Wis. (Cylinders and pattern work.)

Buck Sales Co., 211 No. 12th street, St. Louis, Mo. (Simplex oil gauge.)

Aermore Mfg. Co., 1536 Michigan Blvd., Chicago, Ill. (Sabo motorcycle lock.)

New England Motor & Supply Co., 24 Austin street, Worcester, Mass. (Tandem attachments, clothing and other motorcycle accessories and supplies.)

International Stamping Co., 1852-54-56-58 Austin avenue, Chicago, Ill. (Mud guards.)

J. S. Bretz & Co., 250 West 54th street, New York City. (Bowden wire and F. & S. annular ball bearings.)

Weiss Mfg. Co., Torrington, Conn. (Gasoline filler gauge.)

Howard A. French & Co., 304 W. Baltimore street, Baltimore, Md. (Supplies.)

Gotham Sporting Goods Co., 57 Warren street, New York City. (Supplies.)

C. E. Miller, Anderson, Ind. (Vulcanizer.)

Motorcycle Filter Mfg. Co., 2408 E. 38th street, Kansas City Mo. (Gasoline filter.)

Parisan Novelty Co., Chicago, Ill. (Emergency gasoline tube.)

Motorcycle Specialty Sales Co., 914 So. Main street, Los Angeles, Calif. (Safety gas saver.)

Lowe Motor Supplies Co., 1727 Broadway, New York. (Lowe tourist kit; accessories and supplies.)

Harry Svensgaard Sales Corporation, 471-473 Woodward Ave., Detroit, Mich. (Redmond footrests and shock-absorbers; supplies.)

Lydon Mfg. Co., Chicago, Ill. ("Speedler" gasoline mixer.)

Nelson Mfg. Co., 564 W. Randolph St., Chicago, Ill. (Gasoline gauge.)

FULTON-McCUTCHAN LEADERS

AMONG late trade bulletins from Chicago is one to the effect that the Fulton-McCutchan Co., 1146 Michigan avenue, selling agents for the Victor Auto Parts Co., of Cincinnati, is breaking all its previous records for sales of the Victor specialties. The Fulton-McCutchan firm is calling special attention to the Victor vulcanizer, which is made in two sizes, the smaller for motorcycles and bicycles and the other for automobile service. The device is simple and compact and retails for $1.25, complete.

Another rapid seller on the Fulton-McCutchan list is the "Old Reliable" motorcycle lamp, also made by the Victor Auto Parts Co. This lamp is unusually large, having a front diameter of 8¼ inches, and is designed to provide the motorcyclist with greater lighting power than he is likely ever to need. The lens and the body of the lamp proper are 6½ inches in diameter. High-grade material and careful workmanship feature the product, and these qualities, combined with its unusual size, keep it well to the fore as a business-getter.

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The New Grinnell Glove

Grip-Tite

will make the going easier for you—

You *will* the direction, and "Grip-Tite" does the guiding, so sure, and easy is the control afforded. You cannot know the fullest measure of motorcycling skill, and pleasure, until you are properly acquainted with

Grinnell "Grip-Tite"

Ventilated Motorcyling Gloves

612 W. Highland Ave.
Redlands, Calif.
Oct. 14, 1912.

Morrison-Ricker Mfg. Co.,
Grinnell, Iowa

Gentlemen:
I wish to say in regard to the "Grip-Tite" Gloves which you made for me some time back, that as the boys express it, they are "just dandy."
As I run my own motorcycle I find them a source of great comfort, as with the ordinary woman's gauntlets I would invariably return from a long trip with blistered hands.
They are being greatly admired among my motorcycling friends and I think for handling a machine they would be hard to beat.

Yours truly,
MISS MINNIE E. WADDELL.

Vancouver, British Columbia.
November 18, 1912.

Morrison-Ricker Mfg. Co.,
Grinnell, Iowa

Dear Sirs:
We beg to thank you for your favor of the 13th inst., also for the information that you are giving us the very best terms. You will appreciate our desire to secure rock bottom prices, in view of the fact that we have to sell your gauntlets in Canada at an advance of 35% over cost to cover the duty, which makes the prices rather high when compared with English made gloves, subject to a duty of 20% only.
However, we have found your goods more satisfactory than any of the gauntlets of other makes which we have handled and trust the order just received is only the beginning of a big business between us.

Yours truly,
JOHN MILLEN & SON.

It "*Fits the Hand*" with flexible smooth comfort from the moment you put it on—so soft and pliable is the leather. Yet this velvet Colt-skin is tough and serviceable as rawhide—it will outlast several pairs of ordinary gloves, even without the reinforcement of the

"Grip-Tite" corrugated double palm and inner thumb, which doubles the wear, and then—this "Grip-Tite" feature, our latest Grinnell triumph, adds much to the pleasure of motorcycling, because its *firmer non-slip grip* makes steering remarkably *easy*—gives you constant, sure control with slightest physical effort.

You've no idea how much this "Grip-Tite" improvement reduces the physical strain of motorcycling—until you try it.

Ventilation, by tiny perforations, on the back (too small for dust), admits constant air circulation, evaporates perspiration, keeps the hand *always* clean, dry and cool.

Flexibility and utmost freedom of finger play in steering, manipulating or minute adjustments and repairs, is another strong Grinnell Glove feature, not to be overlooked.

Style 4827

Don't *think* of buying motorcycling gloves until you see the "Grinnell 'Grip-Tite'"—at most dealer's, or—

TRADE Grinnell MARK

Send this Coupon for Our Interesting Glove Book

showing this and many other styles and special features in outdoor and dress gloves, together with samples of the remarkable leathers we use.

Fill out, and mail the coupon today—and if your dealer doesn't carry **Grinnell Gloves** let us send you a pair *On Approval, prepaid*, entirely at our own risk. We want you to see them—then you'll know their real service value and economy.

MORRISON-RICKER MFG. CO.
Established 1856
27 Broad Street - - Grinnell, Iowa

MORRISON-RICKER MFG. CO.
27 Broad St. Grinnell, Iowa

Send me your interesting Glove Book and leather samples—all ***free.***

My dealer's name _____

His address _____

My name _____

My address _____

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MOTORCYCLE MART

One time, three cents a word; twice, two cents a word each insertion. Agents' cards, five cents per word; two or more times, three cents per word each insertion. No advertisement for less than fifty cents.

FOR SALE OR EXCHANGE

FOR SALE.—One 1912 Emblem motorcycle with sidecar; $125. One 2 h. p. M. and M. twin motor; carburetor, coil and muffler, $50. H. Haskel, Spencerville, Ohio.

HAVE YOUR license on neat and strong. Blue prints of five-minute-made holders for Indian 10 cents by first mail. G. W. Haywood, Kingsland, New Jersey.

FOR SALE.—1912 4 h. p. Harley-Davidson, in splendid condition, equipped with speedometer, Purdy exhaust whistle and luggage tandem. Address Wm. Lauterbach, Mendota, Ill.

MOTORCYCLES CHEAP.—Every motorcycle in stock must be sold this month; need room for large shipment of 1913 Eagles. Write for list "I." American Motor Co., 2724 Michigan avenue, Chicago, Ill.

WE HAVE on hand 25 twin type and 25 single type Herz magnetos of the 1913 model. These are new instruments and it will pay to investigate. Address D-H, c/o MOTORCYCLE ILLUSTRATED.

FOR SALE.—1913 Indian twin, 3-inch tires, Corbin-Brown speedometer, run 114 miles. Purchased May 3. Above machine with all tools and extras will sacrifice for $225 cash. J. G. Sanctuary, Kings Park, L. I.

FOR SALE.—New 1912 Flanders motorcycle, 4 h. p. With Splitdorf magneto, flat belt, machine complete with full set of tools for $119 f. o. b. Athens, Ga. A. A. Jordan, Athens, Ga.

WHY BURN or shock your fingers? Air adjuster for Pilot Jet on Indian carbureter—25 cents by first mail. G. W. Haywood, Kingsland, New Jersey.

FOR SALE.—1912 Indian twin, two speed, completely equipped, tandem attachment, Prest-O-Lite tank, lamp, Stewart speedometer, horn, watch, pump, Brookes B400 saddle, new large tires, other extras. Ridden 3,000 miles. Guaranteed perfect. Price $225. J. L. Hollings, 104 Columbia Heights, Brooklyn.

WANTED.—To exchange a 1-horse combination lunch, cone and popcorn wagon costing $387, used one season, fully equipped, for twin motorcycle not older than 1912, equipped and in A1 condition; Indian preferred. Write for photo and description of wagon to Fred T. Gilbert, Box 345, Delhi, N. Y.

1912 PIERCE, 4 cylinder, almost new; guaranteed perfect condition; some 1913 improvements and equipment; 29 x 3 tires; best offer. H. E. Stout. 315 Washington street, New York.

SOL. LAZARUS 216 East 59th Street
(The man with the goods) (at Queensboro Bridge)

PIERCE four-cylinder—new—$275. Attachments, bargain. Aufmkolk, Room 611, 49 Wall street, New York.

FOR SALE.—Harley 1912 single. Run 400 miles. A1 condition. With equipment. Best offer over $135 takes it. W. D. Brooks, Cloverdale, Mich.

FOR SALE OR EXCHANGE, for single cylinder machine, 7 h. Merkel twin, chain-drive; run 300 miles; like new. A. Ehresman, Gary, Minn.

HENDERSON four-cylinder for sale. Perfect condition; run 500 miles; cost $325. Will sell for $200. A. A. Wheat, Wheeling, W. Va.

"SELF-CURING INSTANTANEOUS PUNCTURE PATCHES." By mail, 50 cents. Box of ten. Special prices by gross or half gross lots. F. J. Schumann, 31 So. Walnut street, Akron, O.

FOR SALE.—Flanders 4 h. p. 1912 model, with magneto, free-engine clutch, luggage carrier, gas light, horn and tools; in A No. 1 condition. Price, $125. M. K. Smoker, Ronks, Pa.

NEW SLEEVE DEVICE FOR INDIAN, double jet carbureter, starts motor instantly; $60c. postpaid. G. A. Allen, Livermore Falls, Maine.

FOR SALE.—Frame with tank, handlebars, seat post and transmission for 1910 Merkel-Light; wheels 26 in.; Thor Coaster, coil, Mesinger saddle and luggage carrier; what is it worth? or want engine to fit same. Have also Minneapolis 1911, complete with clutch; two-speed and lamp; in good condition; $150; want Twin. Robert Jensen, Watertown, S. D.

FOR SALE.—Indian 1913 Twin; $225; run 40 miles; guaranteed perfect; reason for selling, other use for money. Edw. Ladd, Vineland, N. J.

"I AM MANUFACTURER'S AGENT for the best Motorcycle Exhaust Whistle made and want a few motorcyclists in every city in the country to act as my agents. Big money during spare time. Special offer to dealers." M. T. Adamson, 3124 Flournoy street, Chicago, Ill.

WANTED.—New 1913 motorcycle; Henderson or Harley-Davidson preferred. O. W. Hendricks, Mountain Home, Idaho.

HELP AND SITUATIONS WANTED

WANTED.—Side line salesman to sell well-advertised and much called for motorcycle article. Big money to be made Write at once. C. M. C., MOTORCYCLE ILLUSTRATED.

WANTED.—Good experienced motorcycle salesman, to sell Indians in the best territory in the world. Liberal commission. Guy W. Campbell, the Indian Man, Waterloo, Iowa.

MISCELLANEOUS

BARGAINS in motorcycle supplies and slightly used motorcycles. Write for particulars. Jewell E. Pierce, Magnolia, Miss.

REWARD.—Twenty dollars ($20) reward for the return of Pope motorcycle, Motor No. 370, Wata Wata belt, Columbus 1913 tag No. 19. Twenty dollars ($20) additional for the arrest and conviction of man giving false name and address in order to rent same. Name given, James A. Bogart, 482 S. Front street, deaf and dumb, or pretends to be so. E. M. Gorrell, 1243 N. High street, Columbus, Ohio.

FOR SALE.—Large Stock, well established motorcycle business in the best field in New Jersey; agent for two leading motorcycles, bicycles, with a large accessory patronage. Address Business Enterprise, MOTORCYCLE ILLUSTRATED.

PARTNER WANTED in a well going and fast growing motorcycle accessory business. Orders have doubled this year over last and cannot supply the demand on account of lack of manufacturing facilities. It will pay to investigate. Address "A," c/o MOTORCYCLE ILLUSTRATED.

MAKE YOUR MOTORCYCLE PAY by using a kodak under our direction. We want travel pictures. Send for particulars. Pacific Motographers, Browning and Addison streets, Berkeley, Cal.

GET COMPLETE OUTFIT for monogramming autos and motorcycles with our transfer letters; small investment, big returns. Write for full particulars. Motorist's Accessories Co., Ashland, O.

WANTED.—Good belt, 1¾ x 8 ft. 8 in., also free engine clutch. Fred Bootz, Wabasha, Minn.

STOLEN.—6 h. p. twin Excelsior, 1912 belt model, newly enameled gray with red panel tank Motor No. 27067, also has long tail pipe. Liberal reward; notify Hub Motorcycle Co., 258 Columbus avenue, Boston, Mass.

DEALER'S CARDS, Etc.

GUS ROTHOLZ, agent for Indian and Excelsior, 1491 Fifth avenue, between 119th and 120th streets, New York. Telephone, Harlem, 2337.

RIVERSIDE MOTORCYCLE GARAGE.—Distributors for Reading-Standard and agents for Eagle motorcycles, Simplex side cars and F. N. combination tandem attachment and luggage carrier, complete, $15. 1913 models in stock; also a large number of used machines at bargain prices. A complete machine shop; all repairs and supplies. 533 West 110th street, near Broadway. Tel. 10071 Schuyler.

"BOB" BRAZENOR, specialist on repairs, Brooklyn agent for Harley-Davidson and Excelsior motorcycles. Parts and supplies for all makes in stock. 1507 Bushwick Ave., Brooklyn, N. Y.

T. J. SIXSMITH, expert repairing; agent for R.-S., Indian and Excelsior motorcycles. 203 W. 100th street, New York.

M.-M. AND EAGLE motorcycles. Two big twins—$240 and $275. Two big singles—$200 and $235. The largest and most powerful line in America. Full line of parts and accessories at George P. Jenkins, Eastern Distributor, 256 West Fifty-fifth street, New York City.

THE NEW YORK Motorcycle Co., 782 8th avenue, New York City. Distributors of Thor motorcycles and parts. We have the only supply of parts in America for F.-N. and Royal Pioneer motorcycles. We also carry a big stock of parts for Indian, Curtiss, M.-M. and R.-S. We have at all times over 50 used machines at all prices. We repair broken cylinders, pistons and crank cases. We have the largest and best equipped motorcycle garage in the country and we do reliable repairing.

HAVE YOUR motorcycle overhauled now; expert work, moderate charges; ten years' experience in motorcycle repair work. Parts for N. S. U., Indian and Peugeot. Metropolitan Motorcycle Repair Co., 320 Amsterdam avenue, cor. 75th street. New York. Tel. No. 1001 Schuyler.

B. & C. TWO-SPEED and free engine gears for chain-driven motorcycles of the counter-shaft type. Bushnell & Cannon, 1268 East 80th street, Cleveland, Ohio.

THE LATEST AND BEST guaranteed Motorcycle Supplies at lowest prices will be shipped same day your order is received. You get satisfaction in every package. Write for largest Motorcycle Supply Catalog ever printed. Motorcycle Equipment Co., Hammondsport, N. Y.

BICYCLES, MOTORCYCLES AND FORD AUTO SUPPLIES—lowest prices. Get our catalog quick. Souvenir FREE this month. Rex Bicycle Co., 1947-1949 Orchard street, Chicago.

BARGAINS in motorcycle supplies and slightly used motorcycles; all makes at lowest prices. Write today for my price-slashing bargain list. Write today; don't put it off another minute, for it means dollars saved. Jewell E. Pierce, Magnolia, Miss.

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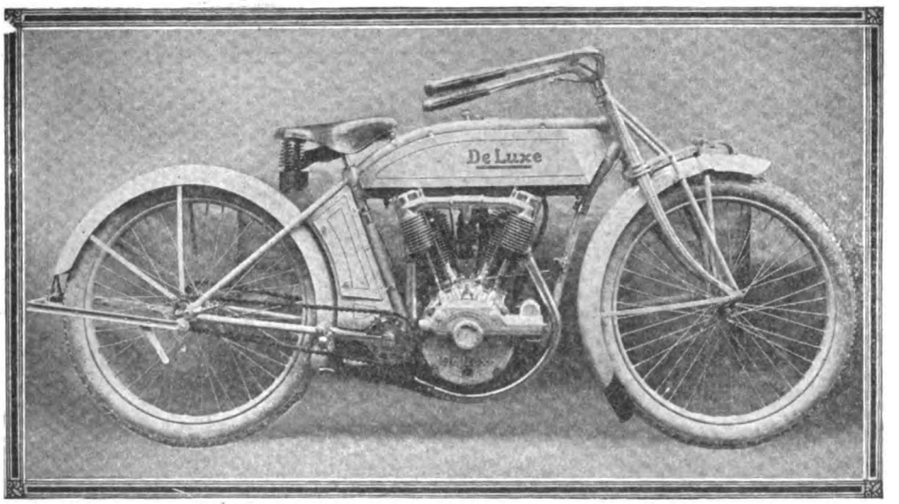
1913 DeLuxe Motorcycle

7 H.P.
$275.00



9 H.P.
$285.00

THE PERFECTION OF MOTORCYCLES

Write Today for Catalog

With it we will send the name of nearest dealer. Most of our dealers have the DeLuxe in stock. So there's no need to wait. Get in touch with us today.

EXCELSIOR CYCLE COMPANY

166-168 N. Sangamon Street, CHICAGO

California Distributor: EDWIN F. MERRY, San Francisco and Los Angeles, California

"BUILT FOR THE ROAD BY MEN WHO KNOW"

When writing to advertisers, please mention MOTORCYCLE ILLUSTRATED.

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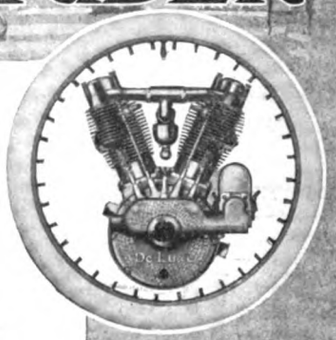
MR. MOTORCYCLE RIDER:



The joy of riding is enhanced when you ride a DE LUXE Motor equipped motorcycle.

Because there are four notable features of DE LUXE Motors:

SILENT CLEAN
FAST POWERFUL

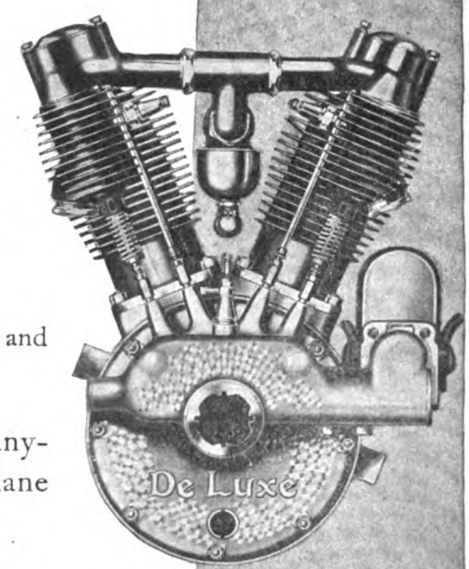
De Luxe Motors
The Heart of the Motorcycle

SO SILENT—that you almost forget that you have a motor running under you. It is like riding in a Pullman.

SO FAST—that you can pull away in an instant from any of your companions, and stay ahead of them.

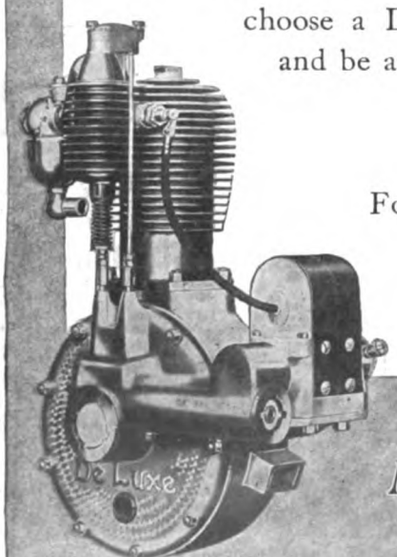
SO CLEAN—that when you return from a run, your motor may be covered with gray dust, but will not look as if it had not been cleaned for a month.

SO POWERFUL—that you can climb the steepest hills and pull through the deepest sand, where others walk.



DE LUXE Motors have done more than anything else to elevate motorcycling to the high plane where no apology is necessary for it.

You cannot afford to be without these advantages, so choose a DE LUXE Motor equipped motorcycle and be a year ahead of the others.



DE LUXE MOTORS

For Motorcycles, Tri-Cars, Cycle-Cars

PATENTS APPLIED FOR

THE F. W. SPACKE MACHINE COMPANY
INDIANAPOLIS, INDIANA., U.S.A.

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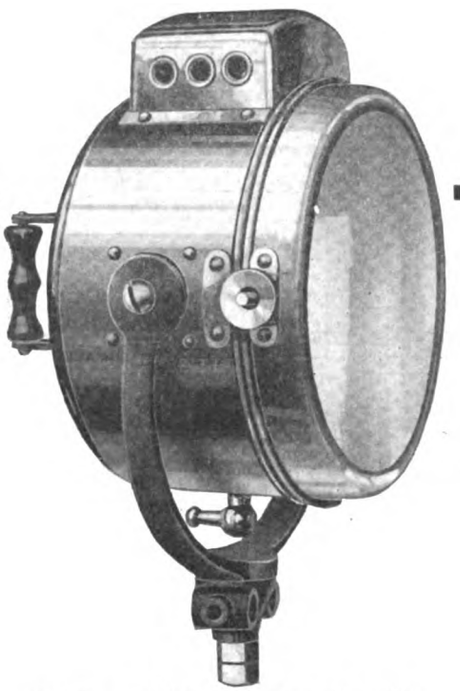
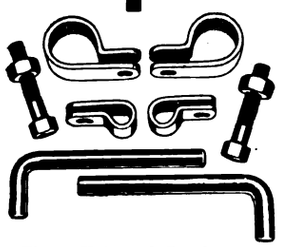
The Indian.
Body Diam., 5¾ ins.
Size of Mirror, 5½ ins.
Depth of Body, 5½ ins.
Heavy prop on back for Indian Bracket.



The "Pathfinder"

Victors—Everywhere!

Old Reliable.
Front meas., 8¾ ins.
Body, 6½ ins.
Genuine Mangin Lens, 6½ ins.



Victor Universal Bracket.
A pair of these brackets will fit any motorcycle handle bar and accommodate any standard lamp on the market. All parts are drop forged and highly finished. This bracket is a great boon to jobbers as it will take the place of an assortment of possibly twenty different styles of motorcycle lamp brackets. List price, per pair, $1.50. packed one in a box.

Victor motorcycle lamps lead everywhere. It's a family of winners in point of perfection of finish, unparalleled durability and tremendous efficiency. Their flawless service is the logical result of accurate manufacture, discriminating selection of the highest quality materials —and, which is most important of all, an ingenuity of designing which can **never** be copied.

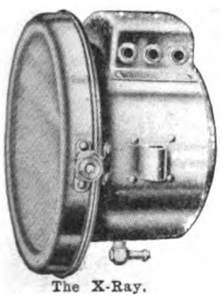
The PATHFINDER LAMP is made in two sizes, large and small.

Large	Front Diameter	6½ inches
	Mirror	6½ "
	Size of Body	6½ "
Small	Front Diameter	6 "
	Mirror	6 "
	Size of Body	6 "

Equipped with fork and swivel attachment. Black enamel.

Dealers—If you are groping in the dusk of indecision, vainly debating as to which line is the line for you, let our catalog enlighten you. You'll reach a decision mighty quickly. Get it today.

The Tourist.
Body Diam., 5¾ ins.
Depth of Body, 5½ ins.
Size of Mirror, 5½ ins.



The X-Ray.
Front diameter, 8 ins.
Props center, 6⅝ ins.
Mirror diameter, 5½ ins.
Extreme length, 6 ins.

The Pilot.
Front diameter, 6½ ins.
Extreme length, 5⅝ ins.
Between props, 7½ ins.
Mirror, 6½ ins.

Victor Auto-Parts Co.
Cincinnati, Ohio

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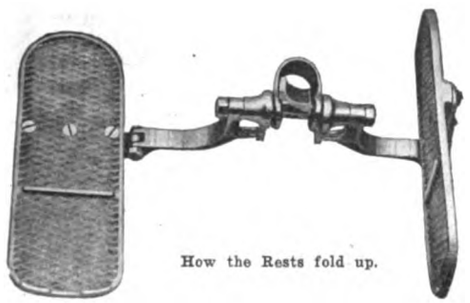
Redmond Foot Rests



How the Rests fold up.

Price $5.00

In working position.

They can be fitted to any make of machine without the aid of tools.

No matter how old the motorcycle, Redmond Foot Rests can be attached.

They add elegance and class to the machine.

They cost so little any rider can afford them.

When not in use they can be folded out of the way.

Redmond Foot Rests are made of the best grade aluminum.

The arm is of crucible steel and the clamp so arranged that they can be made secure at any angle.

Redmond Foot Rests are sold under a positive guarantee—money refunded if not absolutely satisfactory.

Once the motorcycle rider knows you handle Redmond Foot Rests, you will find it difficult to supply the demand.

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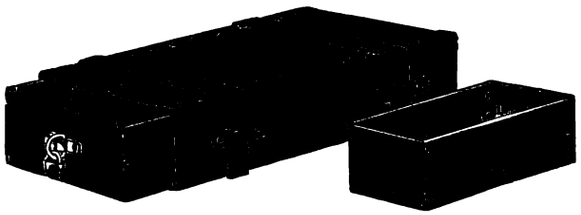

A Monarch Big 10-14 "Dreadnought" and a "Lowe Tourist Kit"

The Monarch Motorcycle is the most powerful built, and its big motor simply romps up the stiffest grades. It starts extremely easily and can be throttled down to a walk, and there is where you realize the comfort of its fourteen horse power, as it will deliver the power at a slow speed—a feature not possible with light high-speed motors. It is a machine for day-after-day service. "Built to stand hard knocks."

The Lowe Tourist Kit Fits Any Luggage Carrier

THIS is a strong, **indestructible, waterproof** case of imported fibre, containing a sliding drawer of same material. Put together with **steel** rivets—no stitches to break in the seams and cause the loss of tools, as in leather cases.

It will be noted from the illustration that our method of fastening the case permits the drawer to be opened and contents exposed to easy access without the necessity of touching the straps.

An extra removable compartment of imported fibre for holding two inner tubes free from damage by contact with tools, etc., can be furnished to fit the drawer at slight extra cost and will be found invaluable for this purpose.

A strong feature of this case is its **lightness,** as it weighs less than the smaller leather tool bags now in use.

In brief, we offer you in this article, not a toy, but a **substantial, roomy luggage carrier,** such as motorcyclists have needed for years, and which will be an ornament to your machine.

PRICE $4.00, Complete with lock and keys. You won't sell it for twice that after you have used it.

Extra inner tube compartment to fit case.....**35 cents.**

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1727 Broadway
Cor. 55th St. New York City

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☐ Catalog of Motorcycle Supplies.

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"Single Tones"
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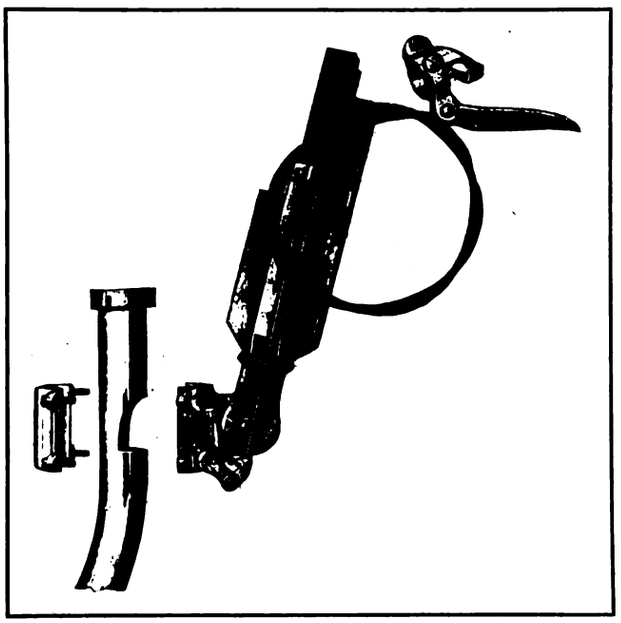
Handle Bar or Foot Pedal Control
A Warning for Every Demand



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DEALERS AND JOBBERS—Ask for our proposition. It will prove a money maker.

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With Handle Bar Control

Attach to handle bar in a few minutes. The marvelous speed spray for motorcycles. Lydon Speedler fits every motorcycle. For speed. For power. For cooling. For economy. Gives your motorcycle a marvelous increase in speed. Removes carbon. Primes engine. Keeps engine cooler. Positively guaranteed on 30 days' free trial. Your money back if it does not pay for itself in a month.

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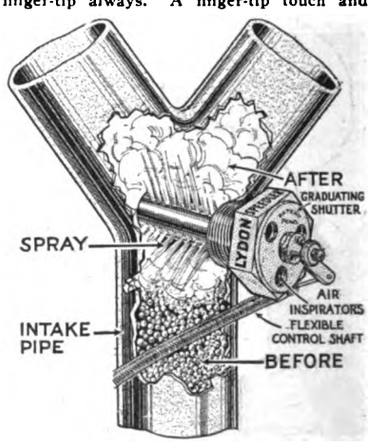

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LYDON MFG. COMPANY
Dept. 6209
Chicago, Illinois

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My address.....

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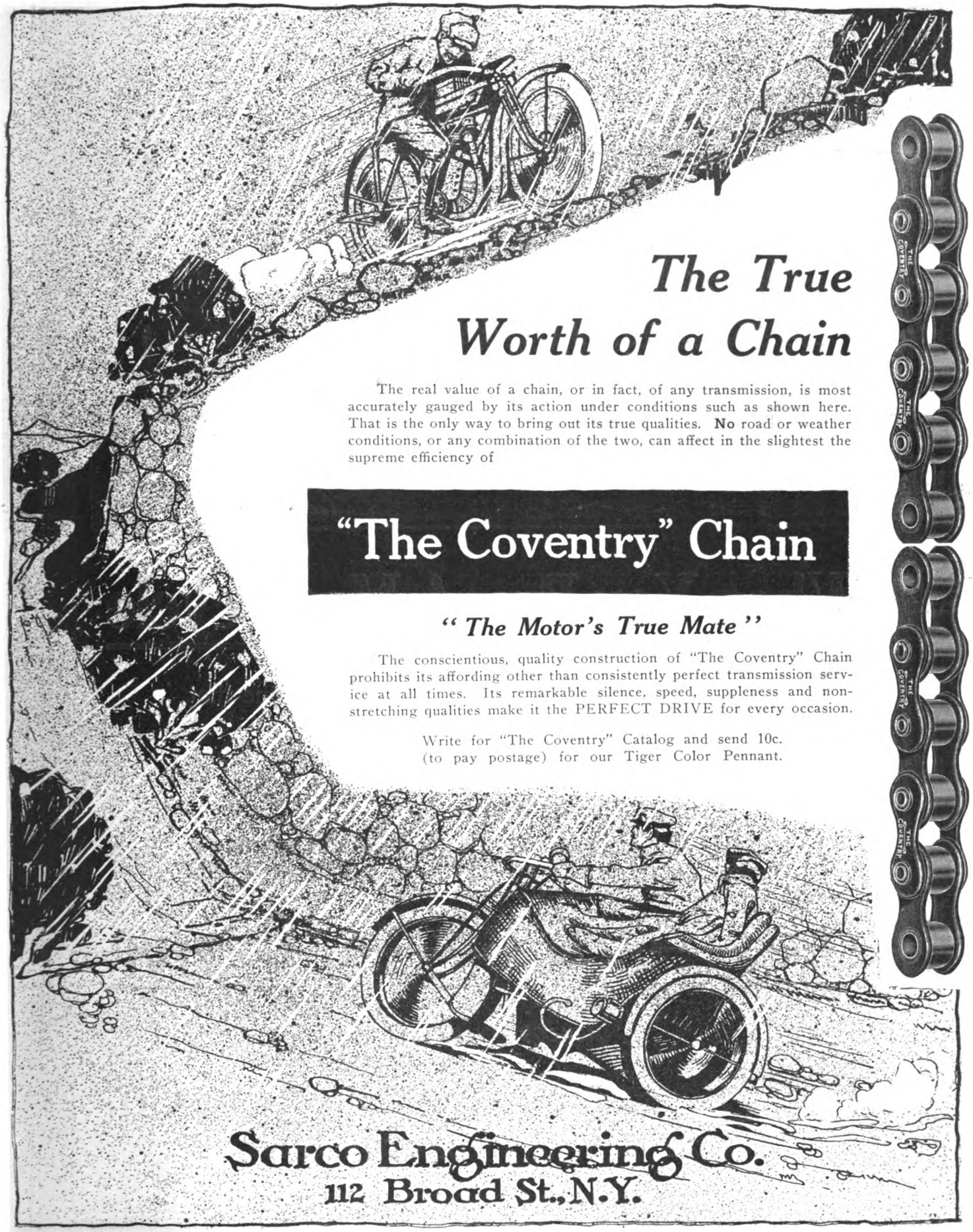

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The conscientious, quality construction of "The Coventry" Chain prohibits its affording other than consistently perfect transmission service at all times. Its remarkable silence, speed, suppleness and non-stretching qualities make it the PERFECT DRIVE for every occasion.

Write for "The Coventry" Catalog and send 10c. (to pay postage) for our Tiger Color Pennant.

Sarco Engineering Co.
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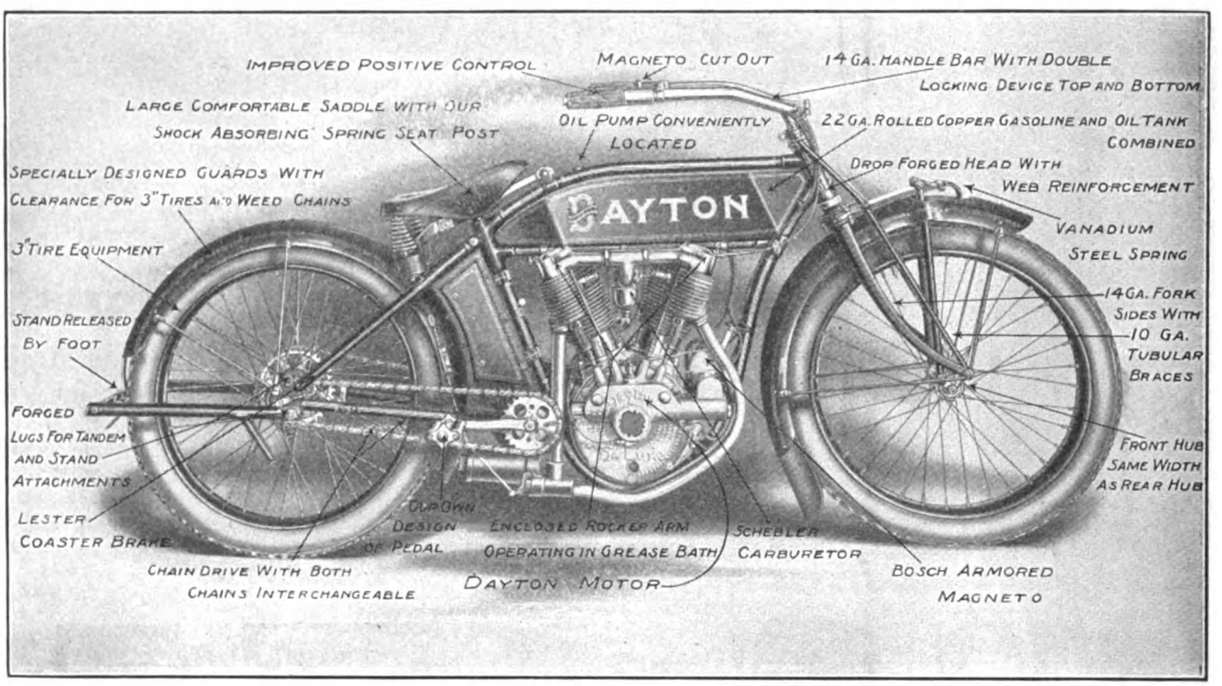

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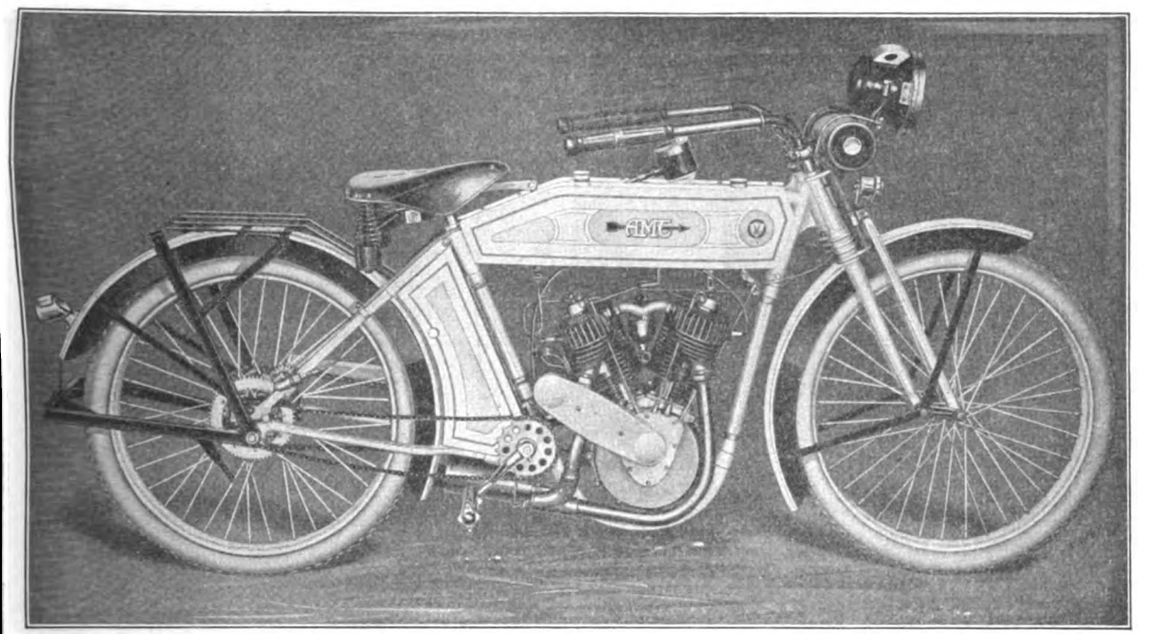

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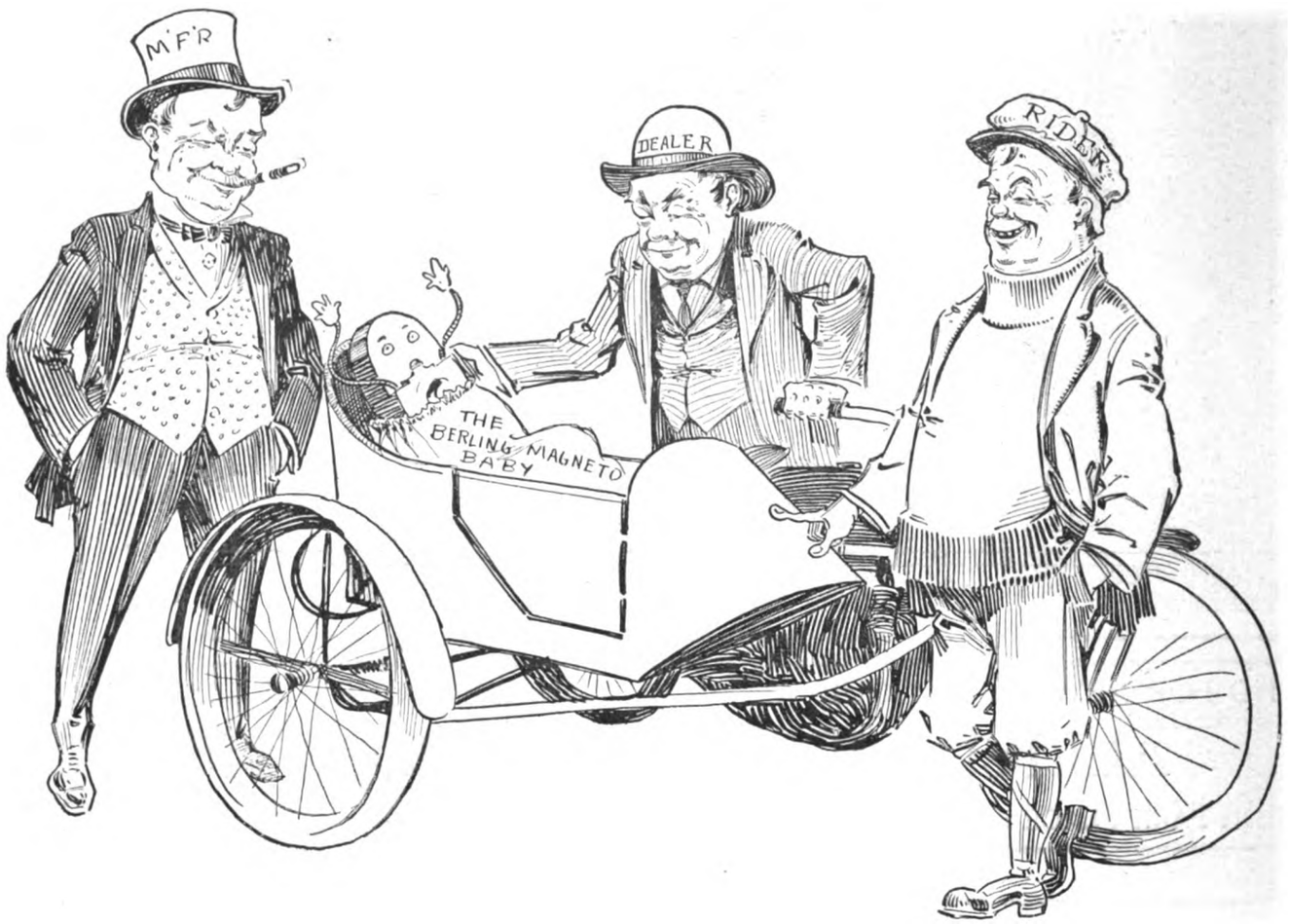

THE NEW BABY

They're all talking about it—riders—dealers—manufacturers.

And they're saying such nice things!
"How small it is and yet how husky!
Some kid—what?"
"Gee, but it's full of life!"
"Peach of a shape for such a little gink!"
Etc., etc.

No wonder we're proud and happy, is it?
No wonder more and more machines are being added to our list of users who have standardized on "The Baby Berling!"

Watch for the lusty new baby on your neighbor's perambulator—the one just ahead of you.

How'd you like to have a "Baby Berling" in your home! Ask mother.

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1115 Military Road, Buffalo, N. Y.

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THE 1913 motorcyclist who rides by night is guided either by the bright moonlight or a headlight—preferably the "LUNAR" Motorcycle Lamp—the light that rivals even the brightest moonlight in penetration and brilliancy. The "LUNAR" is made of heavy gauge brass, double nickel plated. Shell being in one piece with no rings or pockets to permit of the collection of dust. Positive lock prevents rattle and jarring open of door.

Most Powerful Lamp Made

The "LUNAR" is the most powerful motorcycle light made, lighting both sides of the road by means of the beveled silvered reflector, in addition to the spot light, which is generated by the large ground glass fire test Mangin mirror, double reflecting.

Let us send you our 1913 circulars. Your dealer handles the "LUNAR" or write direct to us.

The "LUNAR" may be used with any gas generating system and is furnished regularly with a pair of full nickeled adjustable brackets at no extra cost. Allowance will be made if brackets are not wanted.

INDIANA LAMP COMPANY

Connersville, Indiana

LUNAR

Motorcycle Lamp

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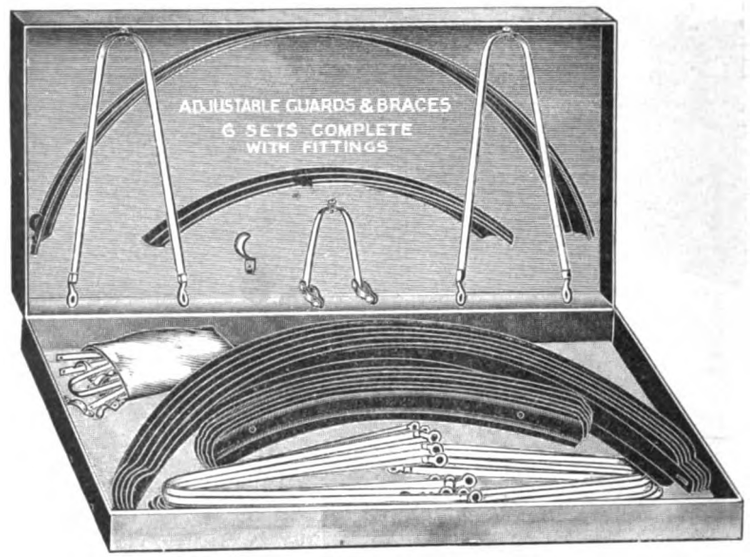
Hear Ye-

Bicycle Dealers and Repairmen

You can attach these mud guards and braces while your customer waits — and he waits only a few minutes.



We furnish 6 complete sets of these adjustable Guards and Braces packed in a corrugated paper two-cover box in a convenient package for jobbers to handle.

They fit any standard make of bicycle. Furnished in plain, black, or colored enamel and colored striped. Made of heavy gauge steel, specially treated. Attached without disturbing front wheel. Once properly attached they can never rattle or work loose. Great labor and time saver for the repairman. Enamel is of true color and won't come off unless scraped off. Our work is guaranteed—our deliveries prompt.

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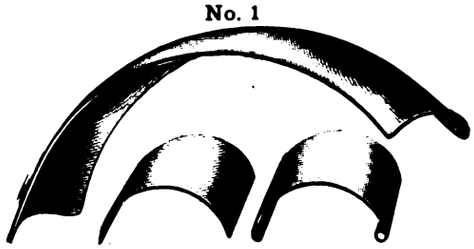

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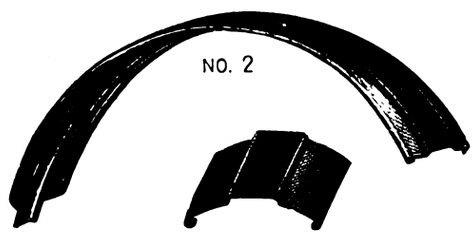

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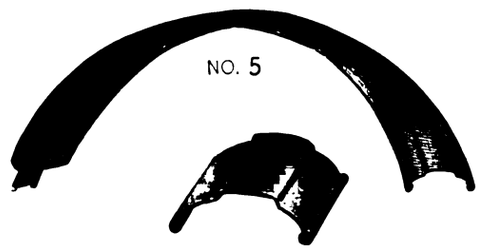
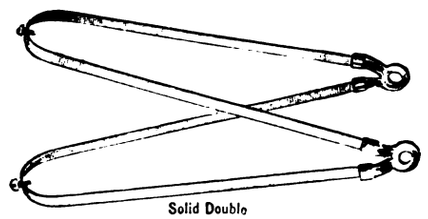


Bicycle Guard No. 5

Combination Adjustable Front Fork Brace



This Wheel is Equipped With Wilson's Adjustable Mud Guards and Braces.

We Also Manufacture All Styles of Motorcycle Guards
Sidecar Guards a Specialty

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The Bullet Electric Headlight

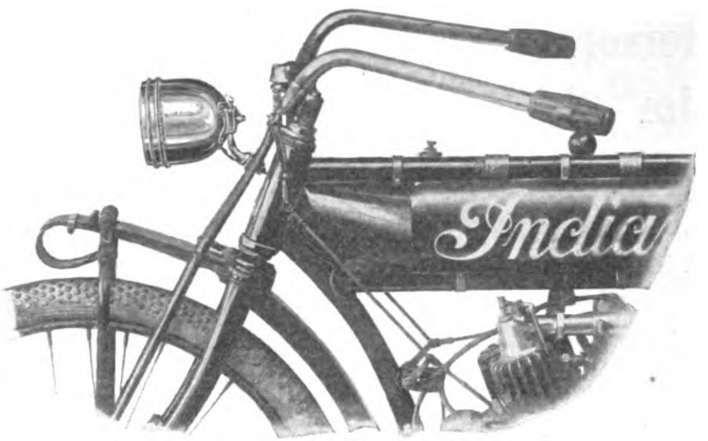
The Bullet Electric Head Light marks a new era for motorcycle lights and is being unanimously adopted by 1913 Riders.

In view of the exceedingly low prices of the BULLET, cash remittances or a postoffice money order must accompany each order. Orders will be filled no other way regardless of credit rating.

Ask for Our Illustrated Circular

Ye Motor Shop

Connersville, Indiana



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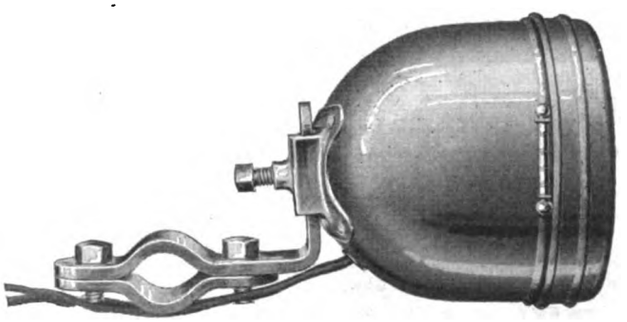
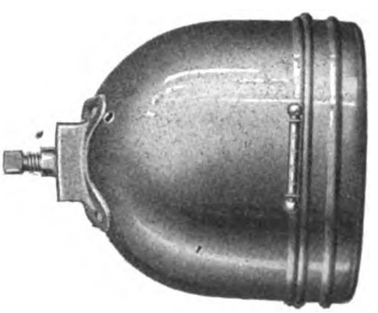
Complete Outfit, consisting of the Bullet Lamp, Bulb, Batteries, Battery Box, Bracket, All Wiring and Connectors **$6.50**



BULLET WITH BRACKET

The Bullet Lamp with Bracket, Bulb, Wiring and Connectors **$4.00**



BULLET WITHOUT BRACKET

Some machines are already equipped with a flat type bracket—and we furnish in that case the lamp only, in a beautiful, highly polished finish, with bulb, wiring and connectors, for **$3.50**

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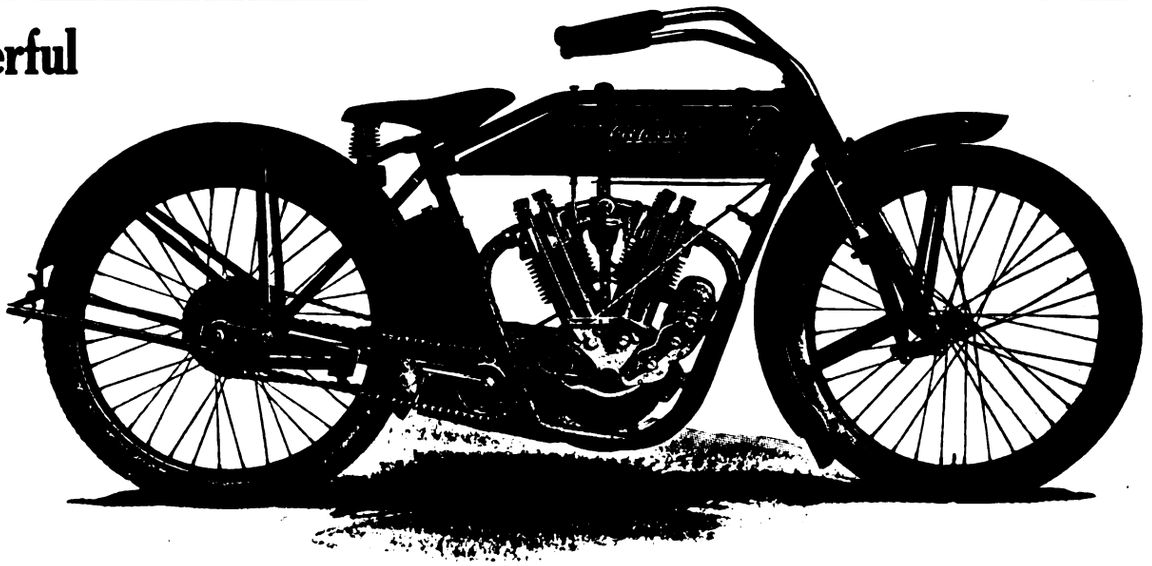
The Wonderful Jefferson Motor



For quick acceleration, tremendous power, smooth, vibrationless, clean-cut action, the Waverley Engine is easily the peer of motorcycle motors. Bosch Armored Magneto Mechanical overhead valves, large ball-bearing parts and perfect balancing complete a motor that cannot help but be perfect in service.

The perfected automobile leaf springs, for which the Jefferson holds original patents, make comfort a foregone conclusion and immeasurably strengthen the frame of the Jefferson.

For the rider who desires power, speed, appearance, comfort, durability in his mount; for the dealer who wants to make the 1913 season spell "Big Business" to him, we prescribe THE JEFFERSON.

TWO RECENT JEFFERSON PERFORMANCES.

At the first race meet held under the auspices of the Western Federation of Motorcyclists at Sacramento, Cal., on April 27th, Tompkins, riding a JEFFERSON, won the Capital City M. C. Championship and also won a twenty-mile race for trade riders. In this last race, he also made the fastest mile of the day. An amateur rider, who had owned his machine only four days, finished the New York-South Hampton 200-mile endurance run with a perfect score, winning a gold medal. Machine used was a 7 h. p. twin Jefferson. Run May 4th.

WAVERLEY MFG. CO., Waverley Place, Jefferson, Wis.

The HAGSTROM SPARK PLUG

"IT SHOWS WHAT YOUR MOTOR CAN DO"

No other spark plug brings out the true efficiency of your motor as does the Hagstrom. Its clean, crisp, sizzling spark finds every atom of charge in your motor's cylinders. It gives more power on less gasoline.

The porcelain and mica feature is an exclusive Hagstrom idea.

The electrodes are genuine imported "Meteor" metal—so expensive that few plug makers are using it.

The "Hagstrom" is the regular equipment on 1913 "Yales"—"Marvels"—"Indians" and "Velies."

Your dealer has them or will get them for you.

$1.00 EACH

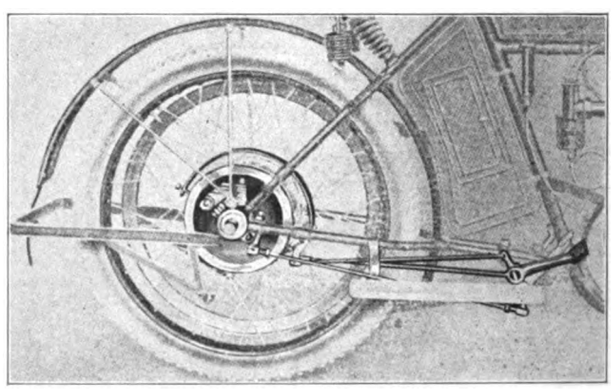
Send 35c. in stamps today for a sample roll (60 inches) of Genuine "Zim" Pulley Lag—the first correct-in-principle lagging offered to the riders of America. Doubles the life and adds to the pulling power of your belt.

Your money back if "Zim" is not the best you've ever used.

THE HAGSTROM BROS. MFG. CO.
Box 144, Lindsborg, Kansas

CHICAGO OFFICE
1725 S. Wabash

THIEM Conversion Set



Method of starting the modern motorcycle. Planetary System of Two-Speed and Free Engine Transmission which can be applied to any make or model belt-driven motorcycle.

- It does not change the general lines of machine in the least.
- It adds less than 10 pounds weight and doubles efficiency of motor.
- It is noiseless in operation.
- It can coast perfectly free with engine and pulley rim dead.
- Picks up spark instantly, same as with ordinary machine.
- There is absolutely no shock in gear changing.
- Impossible to get back kick from motor on starting crank.
- Rider can lock in high, push along and start without use of crank, if desired.
- It starts on stand in high, cranking direct on right side.
- It starts on ground in free, cranking backwards on left side through gears.
- It is not necessary to change your motor pulley.
- Starting lugs on both ends of axle.
- Twin motors as easily started as the singles, either on stand or wheel on ground and crank through gears.

"IT'S ALL IN THE HUB AND STARTS WITH A CRANK"—SOLD WITH AN ABSOLUTE GUARANTEE.

Sold by

Perfection Two-Speed Hub Company
FAIRFAX, MINN.

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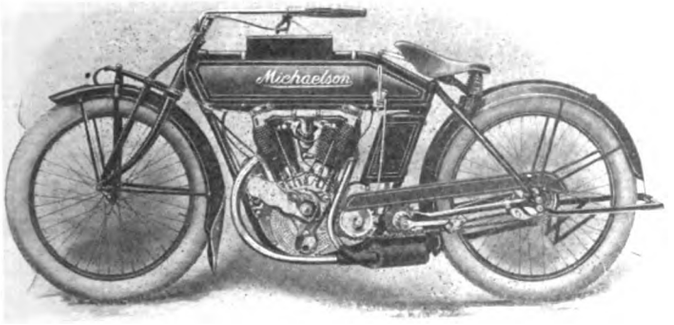
Michaelson Motorcycles



10-13 Horse Power

These machines have made a tremendous hit. Great Power and Speed. Two-Speed Gear, Beautiful Design. Built by men long experienced in the manufacture of two-speed motorcycles.

- Improved Two-Speed Gear, extra heavy.
- Enclosed Clutch running in oil.
- Clutch Control Lever on Handlebar.
- Mechanical Oiler; also Hand Pump.
- Enclosed Valve Levers.
- Extra Heavy Roller Chain, 5-16 in. by ¼ in. pitch.
- Chain Guard, full length.
- Cushion Seat Post.
- 3 in. Tires, front and rear.
- Large Exhaust Pipes, silent muffler.

AGENTS—We have the line of machines that you should handle. We have the *Factory, the Men and Improved Methods* which will enable us to put out only the highest standard of workmanship. We are prepared to make *Early Delivery*. Better get our catalog and agency proposition at once.

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Governs and administers the sport of Motorcycle racing and other competitions in which motorcycles engage; it defends and protects the rights of motorcyclists and facilitates touring; it encourages the use of motorcycles and promotes the general interests of motorcycling.

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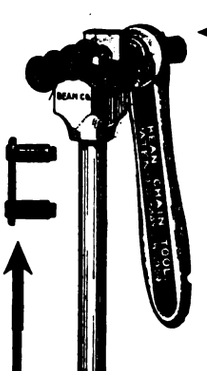

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At Last—A Real Motorcycle Spark Plug!

MADE OF HEAT DEFYING, PERFECTLY INSULATING PORCELAIN—AND DESIGNED FOR MOTORCYCLES ONLY

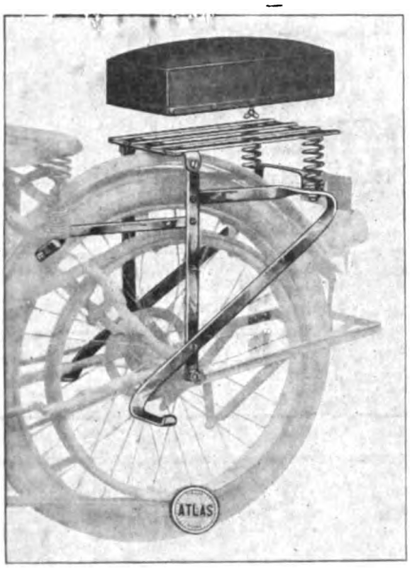
No need any longer to use the inferior mica plug or a makeshift porcelain. This new Motorcycle Standard Spark Plug, built by the greatest manufacturer of spark plugs in the world, gives motorcycle riders a plug with a porcelain insulator that is faultless, defies heat and insures perfect ignition.

MOTORCYCLE STANDARD SPARK PLUG—$1.00

Leading motorcycle engineers of the country have pronounced this plug right in principle and construction. The length over all is 2¼"—just the right size for the limited dimensions available for a spark plug in the motorcycle motor. The porcelain is made in our own potteries. Heat cannot crack it. The bushings are case hardened. The terminal nut will take ordinary wire, ring, or special "Indian" terminal.

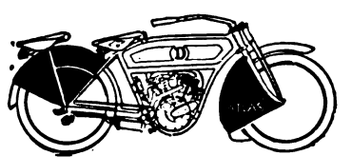
Comes in half-inch or metric sizes. Your dealer will supply you—or sent prepaid on receipt of price and size. Our guarantee—"Your money back or a new plug, unless you are absolutely satisfied."

Jeffery-Dewitt Company 55 Butler Avenue, Detroit, Mich.

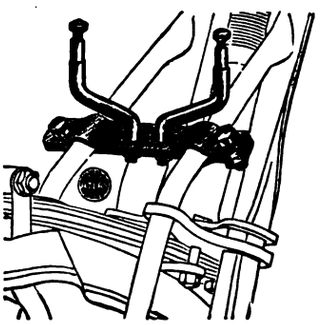


Model B.

THE RIGHT GOODS



You'll Always Find Big Business Around The ATLAS Wheel



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AT THE RIGHT PLACE

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A GASOLINE GAUGE Combined with Filler Cap and Pump

Just What You've Wanted Many Times

The Float signals INSTANTLY amount of gasoline in tank. It is necessary simply to turn cover of gauge rod to one side and permit it to rise. The purpose of the Cap is, of course, self evident, while the pump is useful for priming, repairing punctures, cleaning machine, or lubricating, in fact for numerous purposes where a small amount of gasoline or oil is required.

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Ask for and Insist Upon Getting NELSON MOTORCYCLE ACCESSORIES

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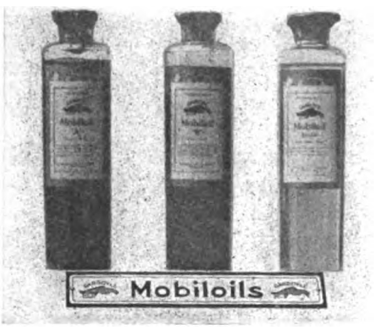
Why several grades?

Here are three 4-ounce bottles. Each is filled with a different grade of Gorgoyle Mobiloil.



The grades all differ in thickness or "body."

These oils meet the most severe physical tests that have ever been exacted from motorcycle lubricating oils. In sheer lubricating quality they stand alone.

But that, of itself, is not sufficient.

To properly reach the many friction points the oil's "body" must be suited to your feed system.

To make this condition plainer, a homely illustration may be taken from the sewing room:

A fine thread is often too light for the wear required. A heavy thread is often too thick to pass through the eye of the needle.

Neither meets requirements.

So it is with motorcycle lubricating oil.

Quality equal, the heaviest-bodied oil will prove the most durable. But to be of service it must be able to properly pass through your lubricating system.

The conditions to be met are complex. The problem is serious.

Motors differ.

Feed systems differ.

Before the oil which best combines durability with ability to meet the feed requirements of your machine can be determined, the construction of your motor must be known and carefully considered.

We have undertaken this problem with the thoroughness that has established our standing in the general lubricating field.

Every year we analyze the motor construction of each of the season's models. Guided by this analysis and by practical experience we determine the correct grade of Gargoyle Mobiloil for each make of car.

Our findings we list in a lubricating chart, which will be sent you on request.

The oil specified for your machine in this chart is the scientifically correct grade for your motor.

The superior efficiency of these oils has been thoroughly proven by practical tests.

If you use oil of lower lubricating quality, or of less-correct "body" than that specified for your motorcycle, loss of power, unnecessary friction, and ultimate serious damage must result.

A word about ourselves.

Lubrication with us is both a business and a profession.

Throughout the world the lubricating counsel of the Vacuum Oil Company is sought by engineers who must meet the most rigid efficiency standards.

Our clientele includes thousands of manufacturing plants—located in practically every civilized country.

We supply the floating armaments of the world's leading naval powers.

We supply the aeroplane fleets of the leading military powers.

Outside of the home field we supply over seventy foreign automobile manufacturers.

In buying Gargoyle Mobiloil from dealers, it is safest to order either a full barrel, half-barrel, or a sealed five-gallon or one-gallon can.

Make certain that you see the name and our red Gargoyle on the container.

A booklet, containing our complete lubricating chart, together with points on lubrication, will be mailed you on request.

GARGOYLE

Mobiloil

A grade for each type of motor

The various grades, refined and filtered to remove free carbon, are:

Gargoyle Mobiloil "A"
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They are put up in 1 and 5 gallon ***sealed cans,*** in half-barrels and barrels. ***All are branded with the Gargoyle, which is our mark of manufacture.*** They can be secured from all reliable garages, automobile supply stores, and others who supply lubricants.

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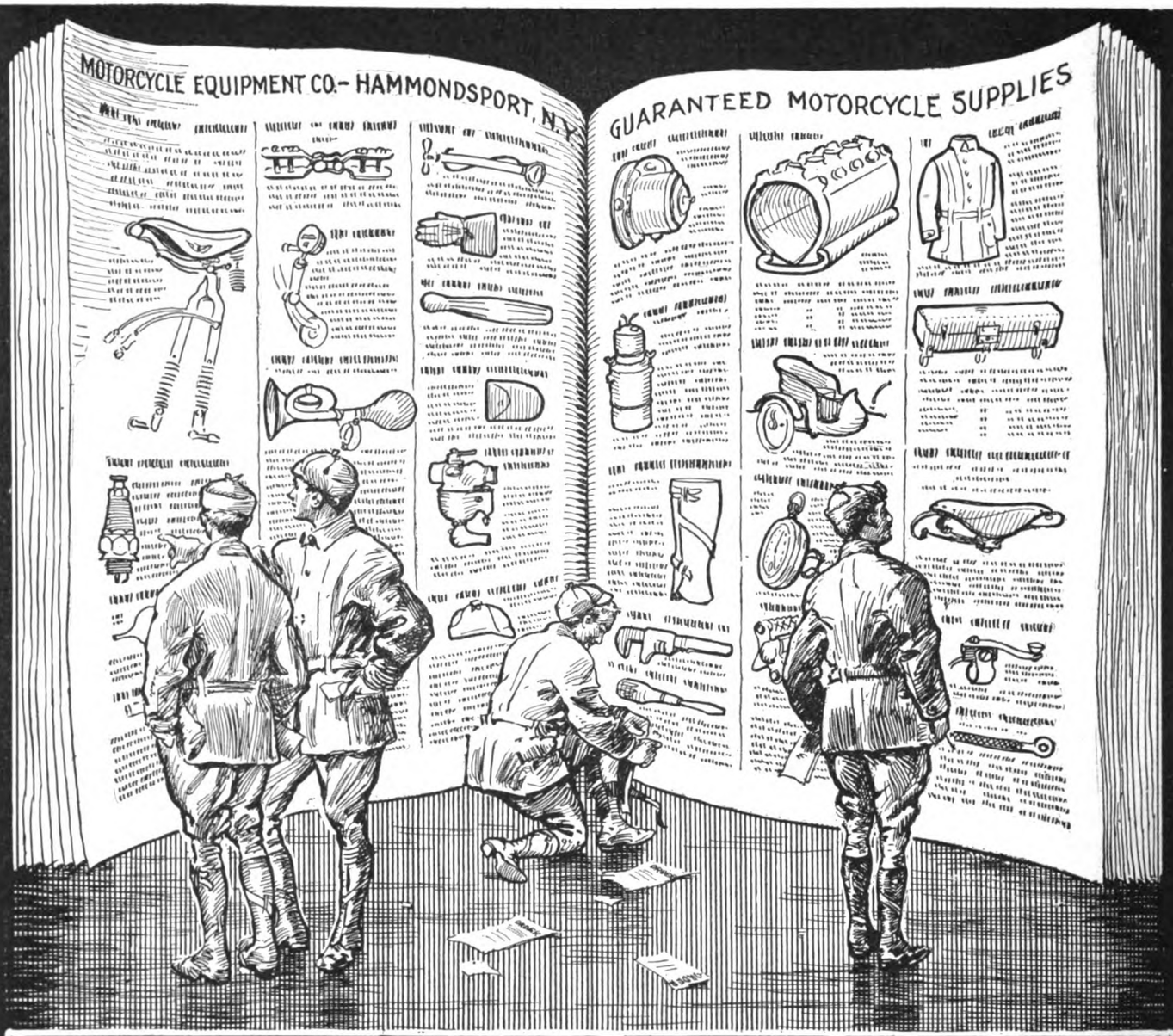

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The twelve hundred sixteen items in this big MECO catalog are so realistically and truthfully described that you can select what you want and know it will please you in every way. When you send us an order you can be sure you will get

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WE DELIVER FREE in the United States by parcel post or express. Our prices are less than you are used to paying. We have been selling guaranteed supplies since 1904 and each order we ship makes a permanent Meco customer. No one else can give you the large assortment to choose from. This is why we are the largest supply house in America. If you want to cut your supply bills in two send a postal today for our big catalog. It is free. Without it you will not know what is the latest in equipment. Your copy is waiting. Write now.

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4 and 5 H. P. Single—Interchangeable
7 and 9 H. P. Twin—Interchangeable

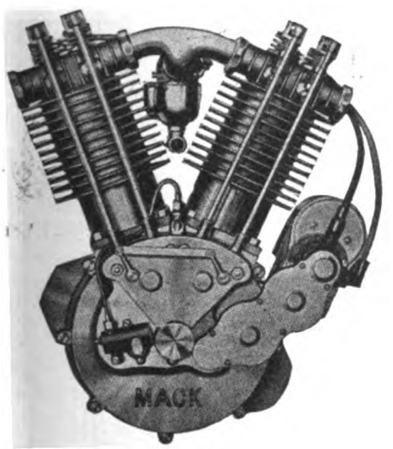
Relentless, invincible, all-conquering POWER.

Absolute silence.

Remarkable flexibility.

All parts absolutely interchangeable.

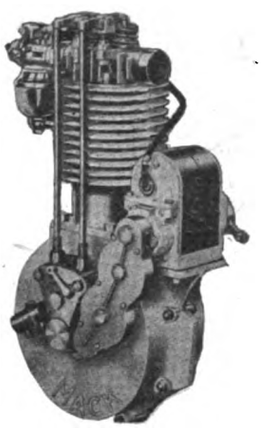
Perfect cooling insured by overhead valves and especially large cooling flanges.



Isn't that your conception of an ideal motor? Isn't that what you have been waiting and hoping for? Well, that's the

MACK

"The Mighty Motor"



We make no rash assertions for the MACK MOTOR. All we claim is that from the standpoint of Power, Silence, Flexibility, Durability and "sweet" cool vibrationless action, the MACK is as highly developed as twenty years of gas engine experience, coupled with unusual designing skill can possibly achieve.

Read carefully the description of the MACK given here. We feel confident it will open your eyes.

DESCRIPTION

Mack motors are made of drop-forged special alloy steel, the same material as used in the most powerful automobile motors. Imported annular ball bearings support the crank shaft. Aluminum crank case absolutely oil tight. High nickel finish on cylinder and small parts. Every part on MACK motors is micrometrically measured and all parts are interchangeable.

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We are considering 1914 specifications NOW.

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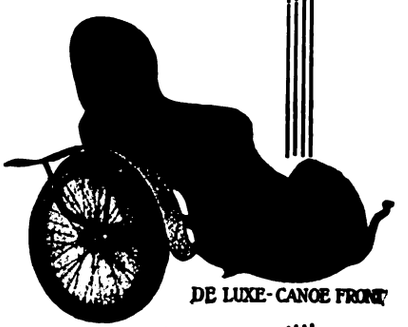

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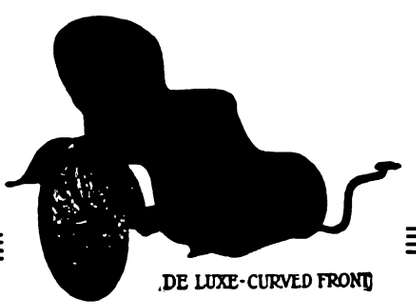

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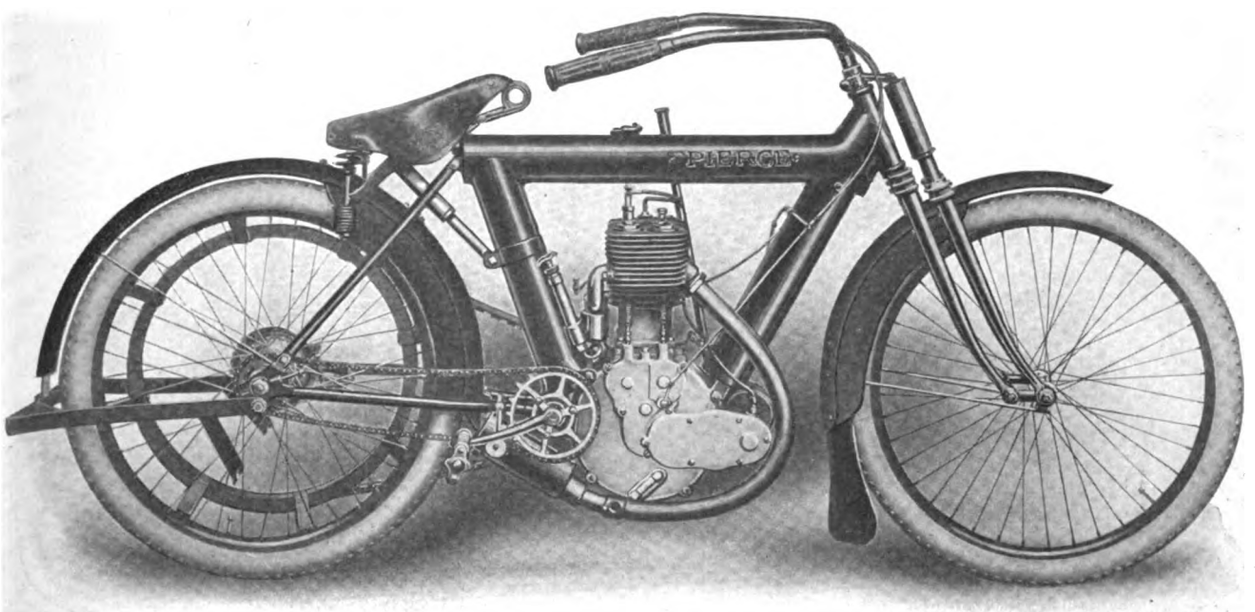

Front Wheel— Knock Out Front Axle. 40 Spokes, 2¾" Tires.

Cushion Fork— Long compression spring with heavy rebound spring, working in brass cartridges.

Rigid Forks— Triple Crown. Stem from solid bar stock, taper drilled. Joined to Cushion Fork with drop forged ball bearing arms. (Exclusive feature.)

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Magneto— Berling—The sensation of the season. It will throw a firing spark at less than 75 revolutions per minute.

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Finish— Four Coats finest baked enamel, either red or black. Nickel Plating best ever put on a motorcycle.

Call upon the nearest dealer or write for agency proposition if the PIERCE is not represented in your section.

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"Always There"

The new SPLITDORF MAGNETOS "have the punch" to get you anywhere under every condition of travel.

"A hotter spark at slower speed than any other make of magneto" is a SPLITDORF boast and a SPLITDORF quality—as certain as Time.

The verdict of the National Shows, when the instruments made their first appearance, was unanimously in their favor.

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And now the voice of the user—the **real** voice of approval, after all—is being heard in a manner not to be mistaken.

It is a SPLITDORF YEAR! Racer and road-plugger—casual and inveterate tourist—it is all the same. SPLITDORF MAGNETOS do, and always will, give you the "firing punch" your machine needs. Insist upon an equipment!

"Front View E U Magneto

"New ignition for old" is a special exchange proposition of great interest to every owner of a gasoline motor that is not equipped with SPLITDORF up-to-the-minute ignition. Save time and money and write or call for particulars today.

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MONDEX-HELIX *in combination with any Carburetor*

REDUCES GASOLINE BILLS 25 TO 40%

Try it on your motor and be convinced! But *beware* of imitations! There is positively *nothing* like the Mondex-Helix for carburetting the air with liquid fuel and keeping the carburetting *constant*—thus *increasing* power and flexibility, with a minimum amount of fuel—almost *doubling* the efficiency of low-grade gasoline or kerosene, and at the same time insuring a *steadier* and *smoother* pull.

The Mondex-Helix is the *only* device of its kind that is scientifically perfect and automatic in its action, yet made without any revolving, moving or complicated parts—requiring no attention whatever, and which cannot get out of order. Also it is the *only* device of its kind that may be installed quickly and easily *without* cutting piping, drilling or making any alterations in your machine.

Simply insert it in the intake of manifold like a cartridge in a gun—that's all!—and the Mondex-Helix will accomplish all and more than we claim for it.

The Mondex-Helix is used and indorsed everywhere where efficiency and economy find consideration.

It is an insurance against back-firing. It eliminates carbonization troubles, because every particle of live gas, in passing through the Mondex-Helix, is so thoroughly disintegrated and mixed as to make *perfect combustion* an *absolute certainty*.

It allows quick starting. It makes a noisy or "knocking" motor *silent* and *smooth*. It reduces the tendency to over-heating and *prolongs* the life of a motor to an almost indefinite extent.

Send in your order at once if your dealer cannot supply you. Let us send you our Booklet R.

When ordering, Address Dept. R, giving make, model of motor or inside diameter of intake manifold. Sent with full instructions, C. O. D. or by mail on receipt of price.

Sizes, 1 inch to 1½ inches $3

Sizes, 1⅝ inches to 2 inches $4

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Model A. C. for 1910-11-12-13.

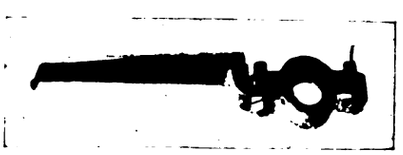
DEALERS!

You want quick selling, practical and thoroughly satisfactory specialties for Indian Riders?

HERE THEY ARE

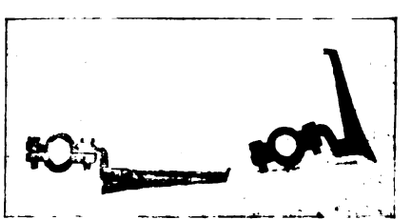
Just a few of the many "HAFCO" specialties. Model A. C. "HAFCO" self-adjusting free engine clutch operating lever clip positively holds the clutch in any desired position, also prevents that disagreeable feature of the clutch "sliding in" for Models 1910-11-12-13.

The "HAFCO" straight foot rests, Model A. S., for 1909-10-11-12 machines. For use on tandem attachments and luggage carrier. Safe, strong, easily attached. Model E. S. for 1913 machine only.



Model A. S. for 1909-10-11-12.
Model E. S. for 1913 Only.

The "HAFCO" folding foot rests, same material as Model A. S. and E. S., with hinged joint. Especially desirable.



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During the early days of pioneer work the inestimable advantages of Bowden Wire control were so palpable to us that we steadily and confidently persisted, and from the moment when manufacturers began to adopt our method, up to the present time of its universality, it has been our pleasure to supply to the trade, and to the public, every fitment pertaining to these controls.

Trade and public will readily appreciate the value to themselves of these years of concentration and experience.

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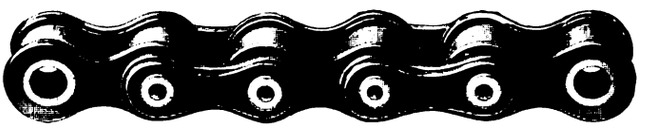
NEW YORK

"Duckworth" Chains



For Touring
For Racing
For Every Day Riding

Give Unequaled Service

The Name

"DUCKWORTH"

Not only represents the manufacturer, but stands for the highest type of Quality chains.

More makers of High Grade motorcycles use "Duckworth" chains than any other kind.

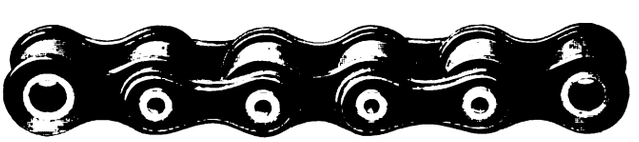
More Racing Records have been made with "Duckworth" chains than with any two other makes.

More Touring Records have been achieved with "Duckworth" chains than with any other kind.

"In Every Test They Are The Best"

for

Quality Counts



DUCKWORTH CHAIN & MFG. CO.
Springfield, Mass.

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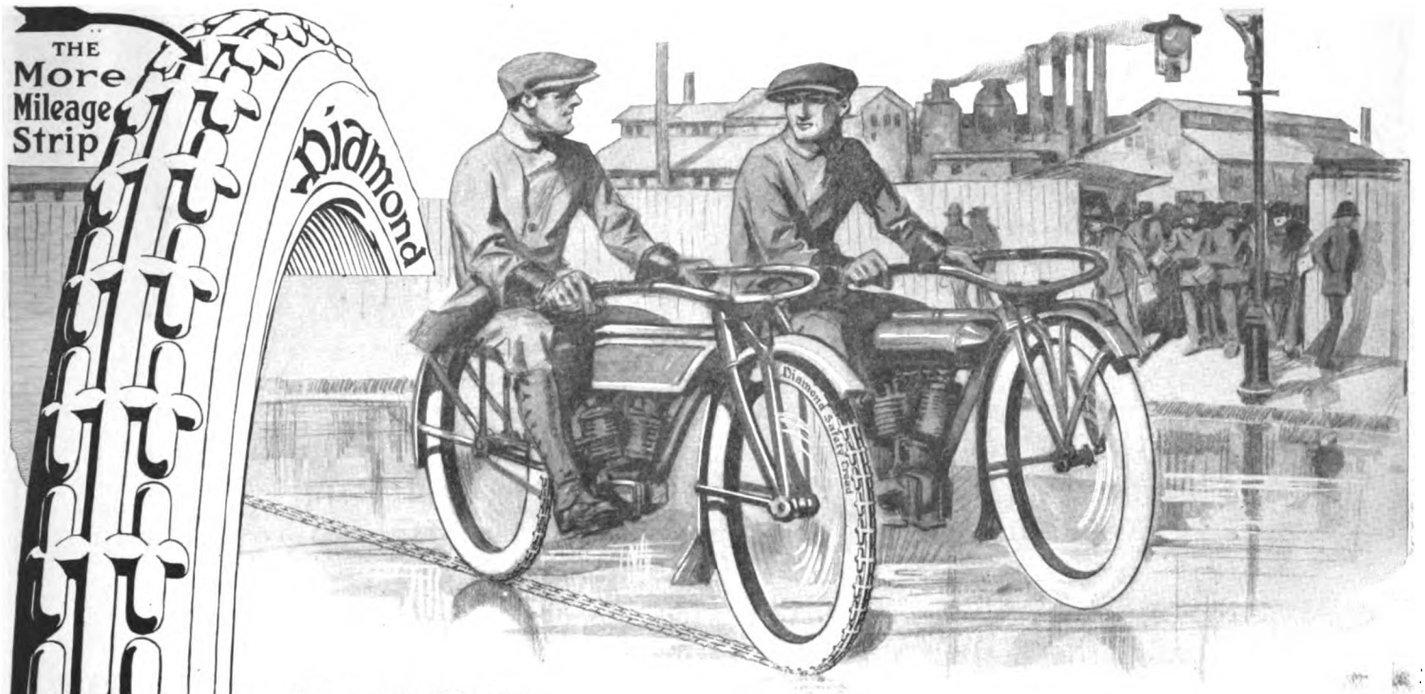

"Going to Work!"

"I've got Diamond Safety Tread Tires—and you can't beat them"

It's the *tire* on which you must depend for quick turns, speeding over slippery paving, crossing car tracks and to meet the unexpected emergencies that confront you daily as a motorcycle rider. So you cannot be too careful in the selection of the tires upon which your safety and easy-riding comfort depend.

That's why you should take advantage of the safety and more mileage features of

Diamond

Safety Tread (Squeegee) Motorcycle Tires

Made of Vitalized Rubber—with Perfect 3-Point Rim Contact

You can now get for your motorcycle the same identical tire that has solved the skid and "More Mileage" problem for automobilists.

The "More Mileage Strip" in the Safety Tread is built on top of and in addition to the regular tread—it assures you of more mileage and longer service at *no additional cost.*

Ask your nearest dealer for new Diamond Motorcycle Tire Catalog.

So this time buy Diamond Vitalized Rubber Motorcycle Tires—you can get them to fit your rims from

Diamond Dealers Everywhere

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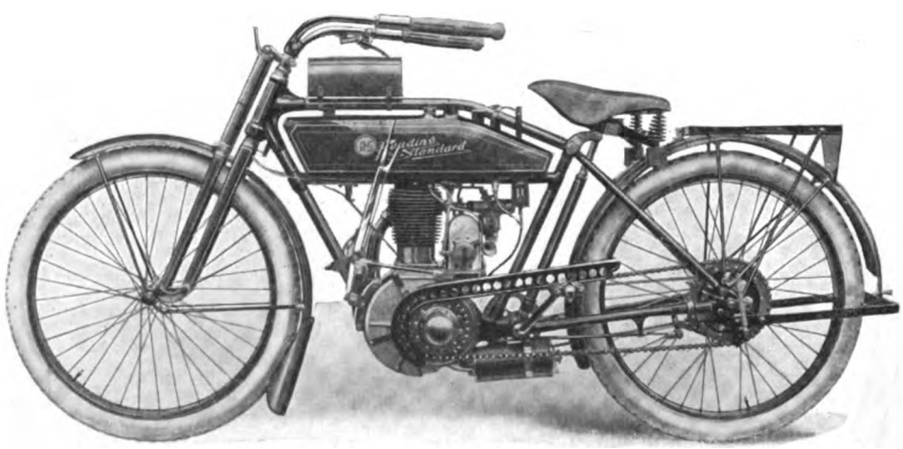
S E R

True service in a motorcycle implies many things. It means RELIABILITY under every condition—which in turn indicates the presence of STRENGTH, SIMPLICITY, DURABILITY, POWER and COMFORT. Upon the strength of these features rests the real service a motorcycle renders. In no other motorcycle has the main issue of service been so clearly and consistently kept in mind as in the building of the

R-S

Every piece of material entering into the construction of the R-S is chosen for its service giving qualities. Nothing about the R-S is left to chance.

The R-S is a well-balanced motorcycle. It is not over-developed in one part, under-developed in another. It is a composite of perfectly equalized and harmonious units, each a "star" in its class, but all working together to attain the ultimate aim—FLAWLESS SERVICE.



READING-STANDARD CO.

When writing to advertisers, please mention MOTORCYCLE ILLUSTRATED.

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VICE

"Built and Tested in the Mountains." Do not underestimate this Slogan. Here, the R-S long stroke motor with its integral cams and gear, mechanically operated valves, specially treated Vanadium Steel, is made to demonstrate its wonderful power, flexibility, durability, by a gruelling road test in the mountains of Pennsylvania before leaving the factory.

R-S

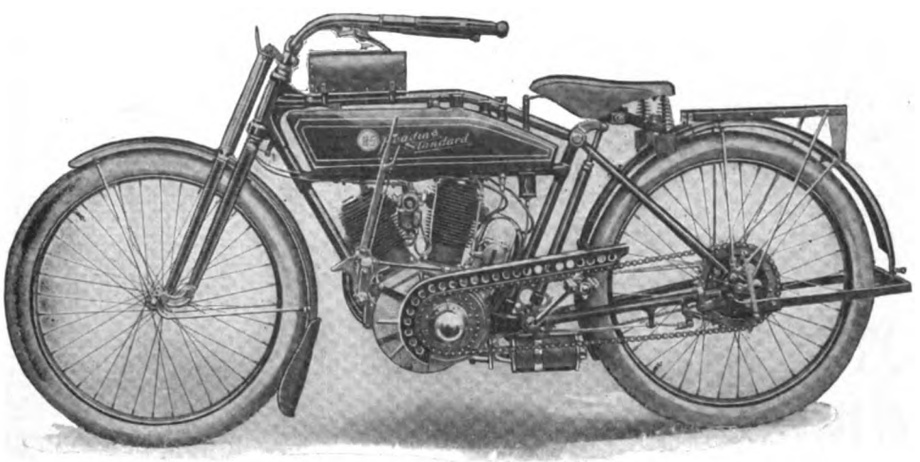
RESULTS

58 seconds to the mile from a standard start. Schumann-Heink Hill Climb, Paterson, N. J., 2500 feet in 26 4/5 seconds. Won from 23 competitors.

ANNUAL SOUTHAMPTON ENDURANCE RUN, 200 miles, 4 R-S machines entered and 4 R-S machines finished with perfect scores.

What more can you demand?

Prompt deliveries guaranteed on all models. Increased factory facilities have enabled us to increase our 1913 output over our first anticipations.



306-340 Water St., Reading, Pa.

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Mott Steel Rims Insure Longer Service

ROAD conditions in America are different than in any other country. They are good, bad and indifferent. Generally bad. On rocky, rutty roads the rims are necessarily subjected to considerable punishment.

The wise manufacturer gives careful consideration to this important feature of motorcycle construction. He knows that to cut costs by using rims other than

Mott Steel Rims

is to invite dissatisfaction and possible cancellations.

Use **Mott Steel Rims.** They are strong—elastic. They are made in an enormous plant devoted exclusively to the manufacture of steel rims.

THE MOTT WHEEL WORKS

UTICA, N. Y.

Guaranteed Wetprufe Belts Are Extra-Thick

Wetprufe motorcycle belts are extra-thick. And that means extra service for you.

And these belts are of even thickness—guaranteed down to 1/1,000th of an inch. They can not jump on the pulleys.

Water-proof, weather-proof and trouble-proof! That describes Wetprufe belts!

And they will not bother you by stretching. Guaranteed!

Be free from belt troubles this year by ordering a Wetprufe guaranteed belt now. All standard widths and lengths—flat or "V."

You are entitled to a guarantee with your belt. Get it.

Your dealer can supply you with a Wetprufe belt. Ask us for new booklet—"Wetprufe Specialties."

HIDE, LEATHER & BELTING CO.
227 S. MERIDIAN ST., INDIANAPOLIS, IND.

H. T. Roberts, Selling Agent, Railway Exchange, Chicago.

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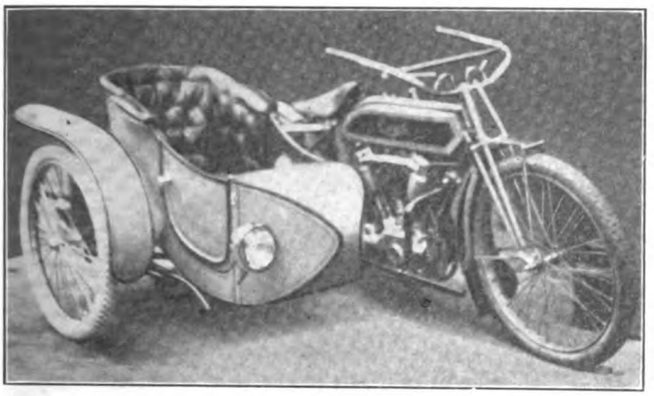


SIMPLEX

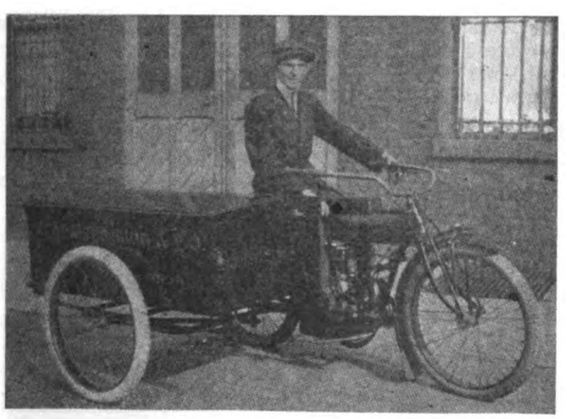
SIDE CARS AND DELIVERY VANS

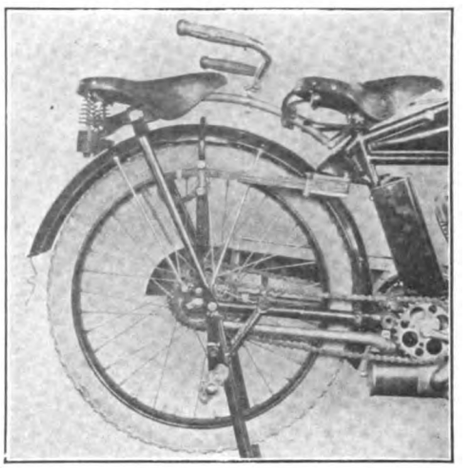
We can, without exaggeration, claim the greatest improvements in side car construction yet attained. The "SIMPLEX" with its graceful, pleasing lines, its deep, rich upholstery, comfortable and roomy interior and reinforced frame, render it the nearest approach to absolute perfection in side cars—we have stepped clear and wide of the ordinary "canal boat" construction. They have—all of them—striven for years to attain the goal we have reached. The car speaks for itself—we "beat them to it."

SIMPLEX DELIVERY VANS

are now in use by leading merchants and have proven far in excess of their expectations as to lightness, adaptability to all conditions and strength. Made to fit all makes of motorcycles.

SIMPLEX MACHINE WORKS
274 Forty-fourth Street BROOKLYN, N. Y.





Model A. Patent Pending.

Mueller Tandem Attachments

To Fit All Indian Motorcycles

None can deny that the very appearance of the Mueller Tandem attachment is indicative of sturdy strength, comfort and "class." And your eyes do not deceive you. There is positively no device on the market that has half the comfort, convenience and strength of the Mueller Tandem attachment. It has absolutely all the comfort of the motorcycle saddle itself. There is nothing about the Mueller Tandem attachment to get out of order. Absence of complicated parts is the rule. Note the strong simplicity of the models shown here.

MODEL A

Model A attachment is for the 1913 spring frame machine and does not interfere with frame action. Attachment is made of steel tubing and drop forgings, well brazed—enameled and nickeled. Large Troxel motorcycle saddle, Kelly adjustable handle bars, standard No. 3 pedals. Enameled red to match motorcycle.

MODEL B

Model B attachment will fit all rigid frames fitted with luggage carrier bosses. Also made with curved tube to attach on forward seat post when desired. Colors: red, blue or green.

Riders!

You MUST learn more about the Mueller Tandem attachment before you are a day older. You cannot afford to be without this "extra motorcycle." You must straddle a Mueller Tandem attachment to appreciate what true comfort means. Get our catalog today.

Dealers!

If any line you are handling today is not as lively as you would wish, it is up to you to get rid of it and stock only live lines. A careful reading of our catalog, copy of which will be sent you upon request, will convince you of the desirability of stocking the MUELLER TANDEM ATTACHMENT.

L. J. Mueller

6307 Woodland Ave. Cleveland, Ohio

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There is as much water for drowning purposes beneath a row boat as there is beneath a battleship—

and the chances of shipwreck are greater on board the row boat than on board the battleship—

Yet the battleship will carry life-preservers while generally the rowboat won't.

The Automobilist who carries a

Schrader UNIVERSAL TIRE PRESSURE GAUGE

and uses it, is on a battleship and carries a life-preserver. The motorcyclist who does without a Schrader gauge and inflates his tires by guess work is in a row boat and without a life-preserver.

Stop inviting disaster and get a life-preserver.

A Schrader gauge will not only preserve the life of your tires, it may preserve yours.

PRICE ONE DOLLAR

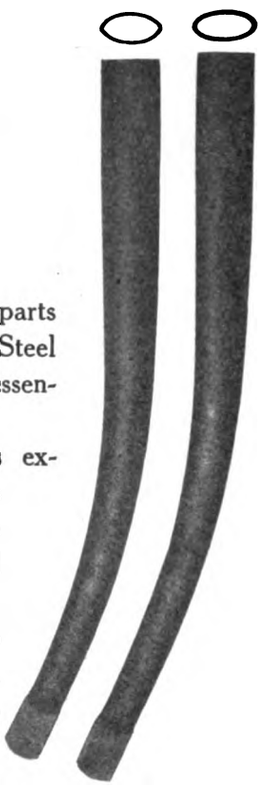
For sale by Tire Manufacturers, Jobbers, Dealers, Garages, or

A. Schrader's Son, Inc.
30-32 Rose Street New York

Frame Parts *for* Motorcycles

MADE *of*

Standard Tubing

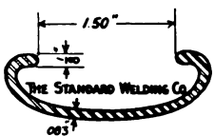


MOTORCYCLE frame-parts made of Standard Steel Tubing have all the qualities essential to safety and endurance.

Standard Steel Tubing is exceptionally strong. It has sufficient spring to give the frame proper resiliency, and the owner an enjoyable ride. It has sufficient rigidness to eliminate destructive vibration and friction of parts, and to give the rider a feeling of security.

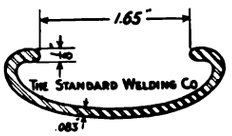
The frames of nearly every make of American Motorcycle are built of Standard Steel Tubing.

B. B MOTOR CYCLE RIM FOR 2¼" AND 2½" TIRES



Standard Steel Motorcycle Rims

C-C. MOTOR CYCLE RIM FOR 2¾" AND 3" TIRES



We carry a large and complete stock of Standard Motorcycle rims—all sizes and types.

Standard Motorcycle Rims are made of an extra quality of steel. They are rolled to a perfect circle. The surfaces on which the tire bears are smooth and clean. The dimensions are in absolute accordance with tire sizes, thereby assuring minimum wear from a source where most tire difficulties arise.

Punchings for spoke-holes are made as required—the work being done by automatic machines—which guarantees accuracy.

We also carry a full line of bicycle frame-parts and rims. *Write for prices.*

The Standard Welding Co.
CLEVELAND
New York Chicago Detroit

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Be Ready for the Roads

Free delivery of all motorcycle accessories by

Insured Parcel Post

Now is the time to purchase your motorcycle equipment. When the roads are ready, do not be held up by a useless tire or a broken Head Light. Equip now and profit by this **free insured parcel post delivery.**

Pierce Motorcycle

Combines Power, Speed, Simplicity and Economy.

$165

5 H. P.—36 Cu. in.

A remarkable value for a tried, thoroughly proven, powerful motorcycle. Only a limited number at this price.

Infallible Speedometer

Start the season with an accurate speedometer and end with a complete record of mileage covered. Rigorous tests have proven these speedometers practical, durable and thoroughly reliable. **Model No. 1, $6.00.**

Motorcycle Shoes $3.00

Tough, long-wearing, thoroughly durable—every motorcyclist should have an extra Shoe, it is cheaper than taking a chance with an old one.

Lamps $2.50 and up

Motorcycle lamps with large Head Lights. Quickly and easily adjusted, solidly constructed throughout, sheds powerful ray.

All Motorcyclists Should Have this Book

This new 72 page 1913 catalog includes everything the motorcyclist needs. Shows how to buy the best and cheapest. Only standard goods listed, and every article thoroughly described and illustrated.

Send now for this book

F. A. Baker & Company

10 Warren Street

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Dealers!

THIS year the F. A. M. Convention will be held at Denver. Twenty-thousand F. A. M. Members will attend. Each will want one of our

F. A. M. Pennants

We are manufacturers of the famous Spiegel Pennants. We employ no middlemen. Hence you save money in buying from us direct. Highest quality felt, waterproof colors, any lettering you desire.

Write at once on your letterhead for our booklet

Spiegel Art Co.

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Announcement

The 20th Century Company begs to announce that their new model Bicycle Gas Lamp is now ready.

This improved model is the result of exhaustive study and experimentations, coupled with a wide practical knowledge of the Bicycle lighting requirements for the past seventeen years.

Its beautiful design and practically perfect construction produce a lamp of Beauty, Economy, and High Lighting Efficiency. Many notable and exclusive features, among which are the New Exposed Carbide Cup Attachment, and New Patent Door Catch, afford the user not only greater facility of operation, but better lighting efficiency. Circulars and price list will be furnished on request.

20th Century Mfg Co 420-422 Ogden Street, Newark, N. J.

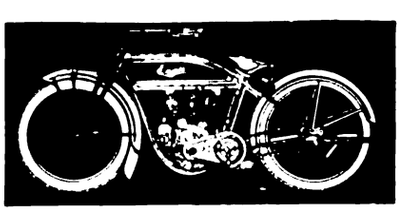
Eagle

9-12 H.P. **$285**

The Eagle "9" with its full grip control rolls along as easily as Old Dobbin if you are not in a hurry, but turn the gas into that pair of 3½" cylinders, and

She's a Bear

The Eagle is built to handle easily at 90 miles an hour.



AMERICAN MOTOR CO.

716 Center Street **BROCKTON, MASS.**

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C.C.C.

"The Brand that's in Demand"

"Carnes Cuality Clothes"

Prompt Deliveries

Riders, Wear C. C. C. Brand Suits and insure perfect satisfaction. Order direct if your dealer cannot supply you.

Men's Norfolk Coats, Long or Riding Trousers. Official F. A. M. Uniforms.
Olive Khaki ..... $5.00 to $6.50
Whipcords and Shelter Tent 7.50
Waterproof Petrel and Roseberry Cloth .... 9.00 to 15.00

Ladies' Norfolk Coats and Riding Skirts. Front buttoned panel of skirt to be folded over or removed, when used for riding.
$7.00 to $25.00.

These suits are made to individual measure. Liberal discounts to dealers and clubs on quantity orders.

Send for our catalog and get our proposition today.

CHARLES CARNES COMPANY, 74-76 La Salle St., Aurora, Ill.

HEITGER MODEL K—1913

Made in ¾" and 1" pipe threads, and special threads for Spacke, Pope, H-D, Excelsior, Merkel, and Emblem, same list, ¾", $10.00; 1", $10.50. Where special fittings are needed, extra price. Has new air valve, no friction, or stems to wear, causing air leakage in low; air adjusted instantly from saddle, for starting, etc. Needs no priming in coldest weather. Furnished with glass or metal bowls, same price, the two being interchangeable.

HALF SIZE

Has new gasoline feed, two jets, one for low, one for high, with separate adjustments, giving minimum and maximum speeds. Owing to air valve action, etc., gives greatest possible speed to motor on minimum gasoline consumption. Light in weight, castings of aluminum, polished nickel plate.

Heitger Carbureter Co.
1129 Beecher St., INDIANAPOLIS, IND.
H. T. Roberts, Selling Agent,
538 S. Dearborn St., Chicago, Ill.

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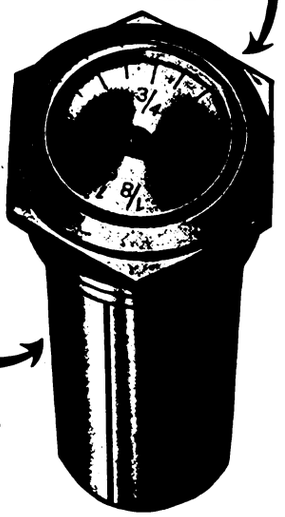
5 Miles from Nowhere and an Empty Tank (!x-zw!)

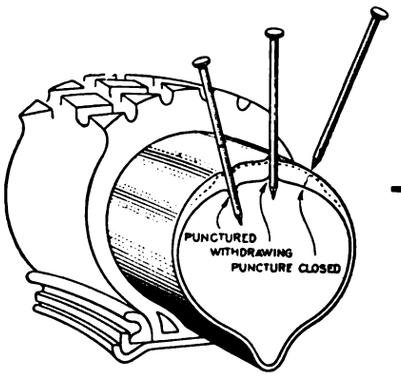
Did that ever happen to you? Then you realize what an inestimable advantage it would be to have a gauge that tells you exactly the level of your fuel supply at all times. Running dry unexpectedly will become a thing of the past.

The Weiss Gasoline and Oil Gauge

tells exactly how much gasoline is in your tank at all times. No more guessing. Highly nickeled and beautifully polished dial case. Gauges made to set in tanks independent of filler holes or directly into filler holes, as desired. No soldering necessary. Can be instantly inserted or removed. Absolutely indestructible. In ordering, give name and model of machine. Full directions accompany each gauge. Prices, Tank Gauge $1.50, Filler Hole Type $1.25.



THE WEISS MFG. CO.
Torrington, Conn.



Brown Scientific Non-Deflating Pneumatic Tube

AN AIR-FILLED MOTORCYCLE TUBE POSSESSING VERY UNUSUAL FEATURES:

First: It withstands a tread puncture without deflating the tube.
Second: The higher the pressure the tighter the puncture closes.
Third: It eliminates the risk of destroying casings by reason of punctures.
Fourth: The danger of loss of control of machine is removed.
Fifth: It assures you of not being obliged to repair a puncture on the road and gets you "there and back" on full tires.

AIR FILLED ONLY.

Punctures are self-closing by reason of a scientific but simple principle of construction.

NO "DOPE," GUM, PASTE OR OTHER STUFFING MATERIALS

Write for prices, full description and sectional sample

VOORHEES RUBBER MFG. CO.
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Main Office and Works: 18 to 46 Bostwick Ave.
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NEW YORK STORE
38 Vesey Street

BOSTON STORE
280 Columbus Ave.

"Whitney" Chains are made from steel best adapted for the purpose, carefully hardened and calculated to resist the most wear, while in the matters of machining and assembling the utmost care is exercised and thorough inspections characterize each process of manufacture.
When making replacements insist on a "Whitney."

The Whitney Mfg. Co.
Hartford, Conn.

Afford Perfect Traction—
Prevent Slipping and Skidding

Mud, sand, slippery pavements or snow will not spoil your sport if you always carry **Weed Chains.**

Easily carried, as the small bundles they make in their canvas bags take so little room that they could be carried in your pocket, when not in use, without inconvenience.

Order them from your dealer or write Dept. B for particulars

Weed Chain Tire Grip Co., 28 Moore St., New York

WEED ANTI-SKID CHAINS FOR MOTORCYCLES

A GOOD EXHAUST CHIME

Is essential to the proper attachments of your motorcycle and to your safety.

ORDER A GENUINE

BARCO Exhaust Chime

Attach it in 30 minutes and enjoy it all summer.
Note the simple construction.
Note the 3-tone chime with all tones in one tube.
Note the unobstructed exhaust passage of the valve.
Reasonable in price. Prompt delivery.

BARCO BRASS & JOINT CO., Chicago

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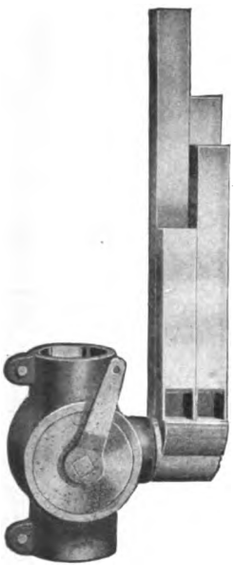
Trinity Chimes Exhaust Horn

"YOU CAN HEAR IT EVERYWHERE!"



The only signal that will warn pedestrians in the proper manner. Absolutely self-cleaning. Easiest horn to attach. Out of the way and cannot jar off. Its classy appearance is a subject of interest to the motorcyclist.

To Dealers

Let us send you a "Trinity Chimes" horn today. It is the biggest seller in the accessory line. It is only necessary for a rider to hear it once and the horn is sold. It is a "live wire" that makes money for the dealer.

We are offering a *SPECIAL discount* to dealers and jobbers who answer this advertisement. The offer is void after June 1st.

Write at once

COMING MANUFACTURING CO., Dept. L.
Railway Exchange, Chicago, Ill.

AMERICAN LEAGUE OF PROFESSIONAL MOTORCYCLE RACING CLUBS

organized to establish Board Track Racing as a great national sport.

CIRCUIT

Chicago
Cleveland
St. Louis
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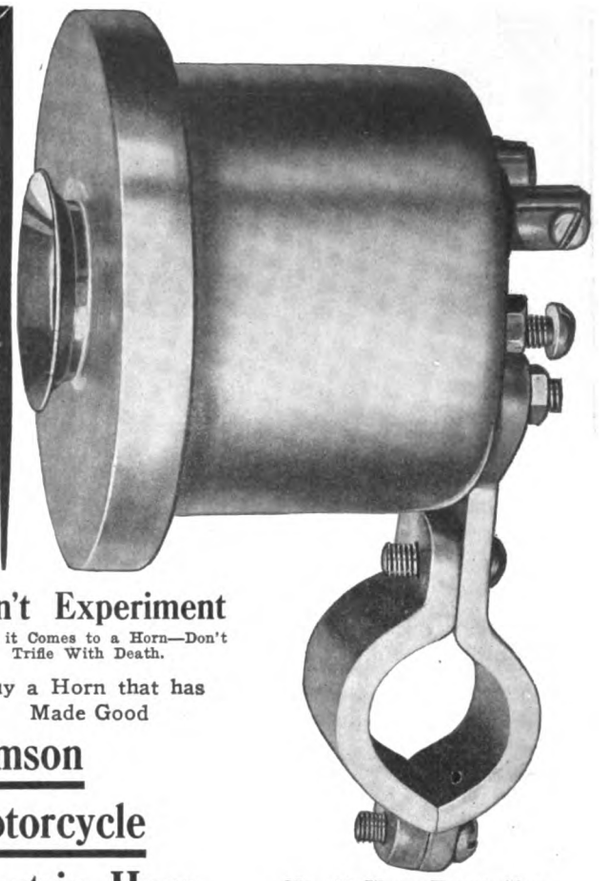
Inter-City Races every Wednesday, Saturday and Sunday night.

We have room for more experienced riders. Address 301 Cuyahoga Bldg., Cleveland, O.



Don't Experiment

When it Comes to a Horn—Don't Trifle With Death.

Buy a Horn that has Made Good

Samson Motorcycle Electric Horn

No. 22 Horn Exact Size

Loud—Strong

Every motorcyclist knows the necessity of a good, loud signal. There is even more need of it on motorcycles than on automobiles. This No. 22 **"Samson Horn"** is a solution of the perplexing problem.

Thousands of these horns have already been sold and in operation for some time. They have proven uniformly satisfactory; and we assure the motorcycle enthusiast that this is an article which is not a toy, but made for practical, every day work.

Nickelplate or Black Enamel Finish

Simple—Reliable

This horn is extremely simple, consisting of a heavy vibrator with two substantial coils, diaphragm and striking rod, all adjustments locked, metal outside case waterproof, neat and substantial.

We furnish a Push that can be mounted on handlebar or grip and securely attached. Push is made so it projects above case and can be used with gloved hand. Four feet of duplex flexible cordage attached to Push, ready for installation.

New Prices for 1913 Now Out

A BIG FACTORY AND FINANCIAL RESPONSIBILITY BACK OF EVERY "SAMSON" HORN

"Samson" Electric Horns are for sale by all up-to-date dealers and distributors. If any motorcycle owner should find a dealer not selling this horn we will quote direct on receipt of the dealer's name.

Dealers: Write Now for 1913 Prices

American Electric Co.

Makers of Largest Line Electric Horns

State and 64th Sts., Chicago, U.S.A.

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Used as Tandem. Price, Complete, $19.00.

"TRIO" Motorcycle Attachment

A combination tandem attachment, back-rest and luggage carrier. It fits all makes of motorcycles and is attached in a few moments without complications in use of special tools. Springs give a maximum of comfort and back-rest renders motorcycling a joy. Enameled to suit color of machine. Order now. State name and model of machine; also brake used. Send certified check or money order. Deposit of $5.00 on C. O. D. order. Big thing for dealers.

TRIO EQUIPMENT COMPANY
2162 W. 29th Street CLEVELAND, OHIO

Tandem and Back Rests to Attach to 1913 Indian, Pope and Flying Merkel Luggage Carriers. Price, $13.50.

The "TRIO" Seat Raised to form a Back Rest.

UTICA, N. Y.

When touring, stop at

UTICA CYCLE COMPANY
COLUMBIA STREET

EVERYTHING FOR MOTOROYOLISTS; AT RIGHT PRICES

The Stoll Spring Tandem No. 2

Price $12.50 complete.

THE RIGHT TANDEM AT THE RIGHT PRICE FOR THE 1913 INDIAN

This tandem has a spring action of about SIX INCHES, provided by long, coil springs enclosed in steel tubes. Cushion is curved in the fore part, which gives a very comfortable position. Has a very flexible action and for COMFORT, DURABILITY and APPEARANCE it outclasses many of the higher priced tandems. No side sway. Folding handle bars, lock securely in either the raised or lowered position. If your dealer does not handle these tandems, send us a money order for $12.50, and we will ship one of these tandems to you express prepaid, complete with handle bars, cushion and tool box attachment. Tandem is enameled Indian red. Dealers, write for our proposition.

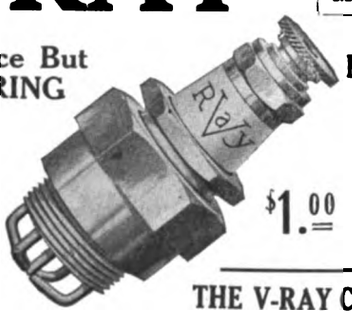
THE STOLL MFG. CO. Denver, Colo. 33rd and Walnut.

V-RAY

ALSO IN MICA-LAVA

Not Price But ENDURING Quality

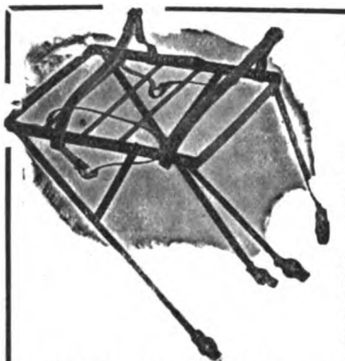
Why defer V-Ray Service



More Power on Less Gas

WILL OUTLAST YOUR MOTOR

THE V-RAY CO. Marshalltown, Iowa



The STAR LUGGAGE CARRIER
Is Built for Heavy Duty

For the rider who wants to carry an excessively heavy weight behind the saddle, the Star Luggage Carrier fills the bill.

Scientifically constructed of steel, heavily re-enforced at points of wear, the Star can withstand considerably over 300 lbs. weight. For tandem riding the spring action makes it an exceedingly comfortable seat.

The Star is handled by the leading jobbers in America. Write us.

STAR ELECTRIC CO., - 18 No. May St., Chicago, Ill.

WHY THE STANDARD SPEEDOMETERS ARE BEST
BECAUSE

THE PATENTED METHOD OF ATTACHING IS PRACTICAL
REGISTRATION IS PERMANENTLY ACCURATE
PRINCIPLE OF OPERATION IS SIMPLE
DESIGN IS NEAT AND PROTECTED
MATERIALS USED ARE THE BEST OBTAINABLE
WORKMANSHIP IS PAINSTAKING

STANDARD THERMOMETER CO.
65 SHIRLEY ST. BOSTON, MASS.

$16.00 OTHER MODELS $12.00 AND $14.50 PRICES INCLUDE COMPLETE FITTINGS

THE STEEL FLEXIBLE TUBING IS PRACTICALLY UNBREAKABLE. SPECIAL LONG AXLES SUPPLIED. DROP FORGED SWIVEL FITTINGS WITH LONG BEARING SURFACES. HEAVY BEVEL JOINT WITH NICKEL STEEL GEARS. BALL BEARINGS IN THE BEVEL JOINT, IN THE SHAFT COUPLING AND IN THE MAIN SPINDLE.

CATALOGUE ON REQUEST

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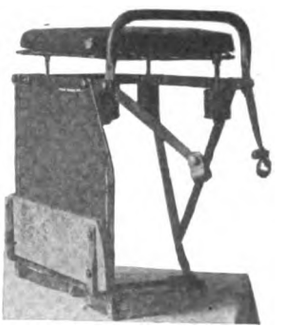
Our Regular Model.
Patented Apr. 2, 1912. No. 1,057,661.

The New Improved OSBORNE Tandem Attachment and Luggage Carrier

The first rear seat and luggage carrier to meet, absolutely, every requirement of the motorcyclist. Minimum Price, Maximum Quality mean Satisfaction—the kind our tandem attachment gives. Rides like an Automobile. Smooth as an Aeroplane.

"HEY, FELLOWS, it's the one that girl loves to ride on." Orders to date for 1913 models exceed our entire output of 1912. This proves that this is worth investigating, Mr. Dealer. You can't lose out on our proposition. Sell one, then sell some more. Be sure to write for our 1913 circular, it will interest you.



Our Regular Model with Running Board Folded.

OUR REGULAR MODEL—A dandy for the Harley-Davidson, Excelsior, Yale, Thor, Dayton, Curtiss, etc. Note that this is not a combination affair, but a practical, desirable, indestructible, attractive, convenient and easy riding rear seat. Designed especially for carrying the lady by reason of its easy riding qualities. Mounted securely on four large coil springs which take up all jars. Each attachment furnished with leather cushion and skirt guard. No special motorcycle clothing necessary, no extra power as in use of side or fore car.

OUR REGULAR MODEL WITH RUNNING BOARD FOLDED up when not in use. Extra running board may be attached on opposite side for carrying suit case or Prest-O-Lite tank. Both boards fold up. DEALERS, this is a **real seller** to increase your bank account. Price, $12; extra running board, ready to attach, $4.

Our 1911-12 Indian Model.

OUR 1911-12 INDIAN MODEL—Proved so popular in 1912 we were unable to supply the demand for it. We are shipping large numbers of them this season. Carried in stock at all times. Special model for the 1912 T. T. Indian. Also special model for 1913 Indian.

Special models of our Attachments for 1913 Indians, Henderson 4, Pope and Merkel. Dealers, write.

Manufactured by **J. A. Osborne Mfg. Co.,** **Hammondsport New York**

Standard

In Name and Quality

Never has there been a truer saying than the time-worn old adage, "It's the little things that count." And it is the degree of attention paid to these "little things," that determines oftimes the success or failure of a machine to "get across."

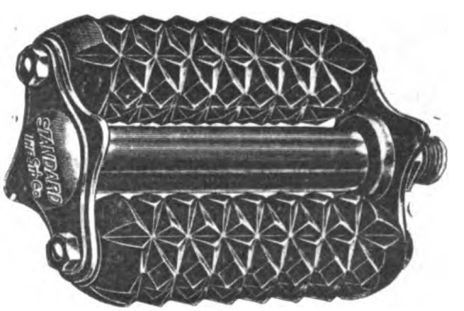
Wise manufacturers are equipping with Diamond "E" Spokes and Standard Pedals because they are quality goods—because they reduce the number of repair shop trips for the rider—because farsighted manufacturers realize that a motorcycle's weakest points are its strongest—and it is that infinite attention to detail which bespeaks perfection.

The dealer who looks ahead will stock heavily with Standard Pedals and Diamond "E" Spokes and Nipples. The motorcycles that are not so equipped will inevitably come to his shop for replacements and it is up to him to sustain his reputation for high-grade repair work by fitting Standard parts.

Everyone knows the superiority of Standard No. 3 Pedals, their deep, soft rubber cushions, the interchangeability of the rubbers, and the thousand and one other good features that are not found in other pedals. The feet cannot slip no matter how rough the going. And the perfection of Diamond "E" Spokes is proverbial.

The Standard Company

Torrington - Conn.



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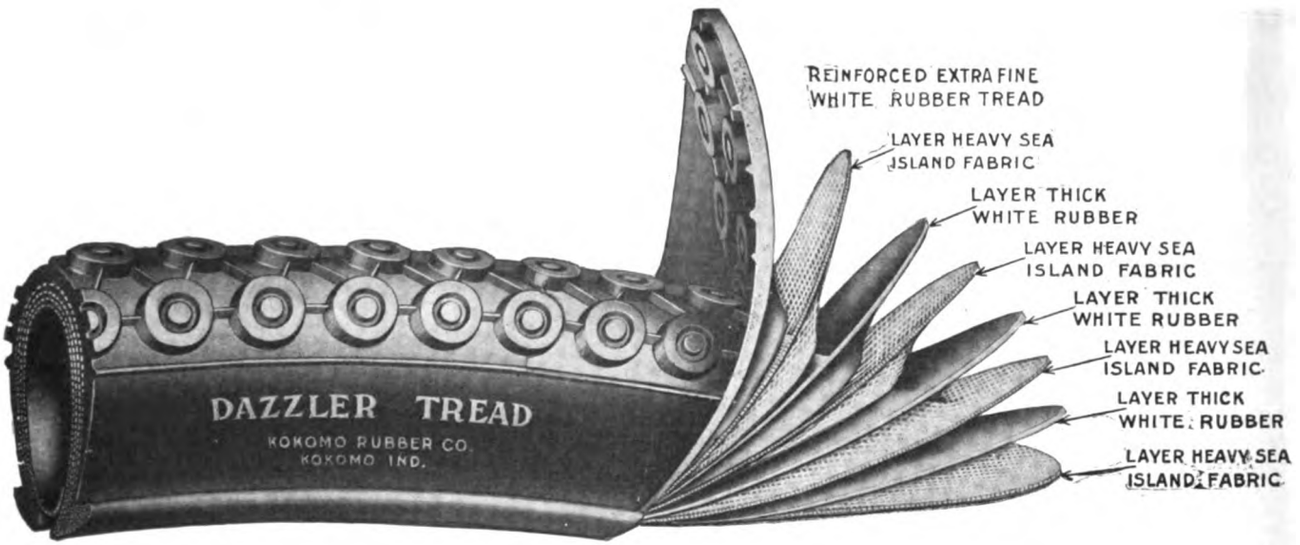

The Dazzler—A Real Non-Skid Tread

Dazzling indeed in its aggregation of service insuring features is this new arrival in the Kokomo group.

Note the distinctive studs. Your eyes give you the most convincing testimony as to their efficiency as skid and side-slip preventatives. Your common sense tells you that it would be impossible to find a more effective tread. And give your close attention to the seven alternating layers of thick white rubber and heavy Sea Island cotton. Can you find anywhere a more efficient, business-like tire? (Chorus) NO!

Send for our catalog. It tells the whole story.

KOKOMO RUBBER COMPANY, KOKOMO, IND.

Auburn
Spark Plug

Tourists, learn from those who have suffered. Follow the example of your fellow riders and equip with the Auburn Spark Plug.

Its perfect insulation, its unfailing reliability at all times precludes the necessity of carrying a number of reserve plugs in your kit.

The AUBURN SPARK PLUG has the largest combustion chamber of any spark plug on the market.

The thousands of testimonial letters we have on file at this office are ample proof of our claims. They have been substantiated to the satisfaction of the most skeptical.

Our leaflet, covering our line of motorcycle spark plugs and also citing a few testimonial letters of more than ordinary significance, will be sent upon receipt of your name and address.

NEW YORK MICA & MFG. CO.
AUBURN, N. Y.

THE ACME SIREN

"The Little Horn With the Enormous Range"

The marvellous carrying power, the impressive distinction of the tone—a low, vibrant growl growing into a shrieking, whining snarl and then dying away into silence—the sturdy, compact appearance,—these features place the Acme Siren in the front rank of motorcycle noisemakers.

Its tone carries its danger message through all other noises. It is not a "pretty" sound. It sounds like business. It invariably gets quick action. It **always** works.

The ACME SIREN is made of heavy gauge brass, with a bulb of exceptionally durable Para Rubber. It is absolutely positive in operation. No wires or batteries to get out of order. No mechanism to break at the critical moment. Just a horn, bulb and revolving reed. A handsome, unique and durable warning signal.

Price, $5.00

Send 10c. for our Tiger Colored "Coventry Chain" pennants.

SARCO ENGINEERING CO., 112 Broad Street, N, Y.

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Looking for solid, substantial tandom ccmfort? Stop this way, ploaso!

Don't let's argue on the subject. You know what you want in a tandem seat and we're not going to try to tell you that you want something else. That would be foolish. Likewise unnecessary. Because the Katzmann Eazy Ride Seat is just what you want. It is supremely comfortable. It is extremely easy and simple of adjustment. And most vitally important of all, it costs less—much less—than any other attachment on the market.

KATZMANN Eazy Ride Seat "MAKES RIDING A TREAT"

Once try this luxurious seat and you will wonder how you ever did without it.

Comfortable and Convenient

The Katzmann Eazy Ride Seat fits any luggage carrier. It is easy to put on and take off. It has no complicated fittings to get out of order. It gives the utmost in velvety smoothness of action without the fragility of more complicated, easy-to-get-out-of-order fittings. We feel safe in saying what every rider's common sense should tell him to be true—a strong, rigid luggage carrier, with an upholstered spring seat is the logical tandem seat, in point of both comfort and low cost.

Tremendously Strong

The Katzmann Eazy Ride Seat must give perfect, enduring service, because it is made right of the proper materials. Genuine springs, extra long oil tempered, are arranged in special swivel truss frame of our own. Each spring is allowed to work separately, but at the same time holding its alignment. Five inch upholstery, with special arrangement of springs assuring absence of bulging in the sides. Made of ⅝" veneer. We positively and unconditionally guarantee the Katzmann Eazy Ride Seat for one year from date of sale.

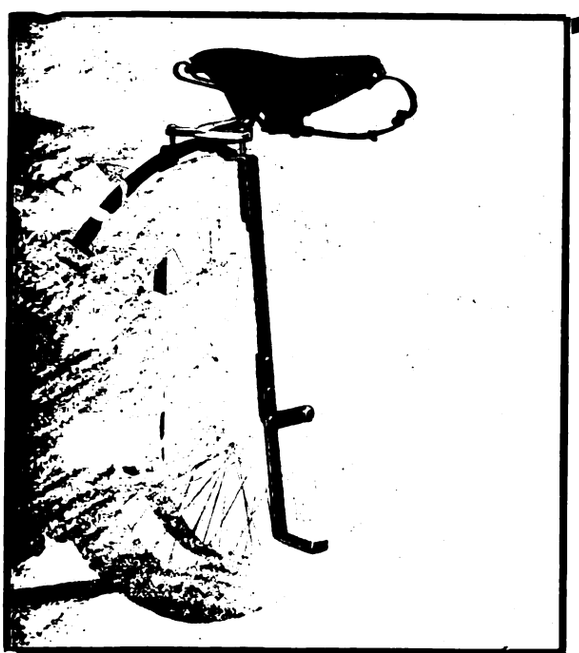
Made In Three Grades

Style "A" Grade, Genuine Leather Top.....$3.50
Style "B" Grade, Good Serviceable Imitation Leather 2.50
Style "C" Grade, Best Grade Katzmann Leather.... 2.00

DEALERS—ASK US.
RIDERS—ASK YOUR DEALER.

If he cannot supply your requirements, write us at once.

WM. KATZMANN CO.
367 E. 61st Street CHICAGO



If You Are Going to Buy a Tandem

Get posted. We want you to compare The Luxett, pictured here, with any other Tandem on the market. Consider:

FIRST: The safety of your passenger depends upon a few bolts, nuts and strips of iron. Before you buy be sure of the strength. Nothing but materials which tests have shown to be best adapted for this work are used in The Luxett.

SECOND: His—or her—comfort depends upon the spring arrangement governing the seat post. We use what we term a "lifting-jack" which causes the seat to actually float. Just think, absolutely no rebound no matter what the roads. Just a smooth, gliding, undulating motion under the worst condition. Add to this the comfort obtained from a big, roomy Mesinger Saddle. Truly, it rides like a Pullman.

THIRD: Your comfort, and the efficiency of your machine, depends largely on the proper distribution of the weight behind you. We throw the weight 4" ahead of the axle, forcing the front wheel to take its share of the load, and, what is more important, reducing side sway and consequent "spills" to a minimum.

FOURTH: Owing to the fact that we are 4" ahead of the axle, and within an eighth of an inch from the mud-guard, we obtain the very lowest saddle position possible.

FIFTH: The Luxett is heavily nickeled and polished; is graceful and sturdy in appearance and design, and adds—rather than detracts—to the beauty of the machine.

If your dealer does not handle The Luxett, send us $15.00 or if handle bars are wanted, $16.50 and it will be sent you at once.

DEALERS: Get our proposition. It will be of interest to you.

Kraft Appliance Company - 150 E. Exchange St., Akron, Ohio

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The Neverout

TRADE MARK

MOTORCYCLE OIL LAMP

(Patented)

SHOWING A RED REAR LIGHT

THE ONLY RELIABLE MOTORCYCLE OIL LAMP

LAMP WEIGHS ONLY 12¼ OUNCES.

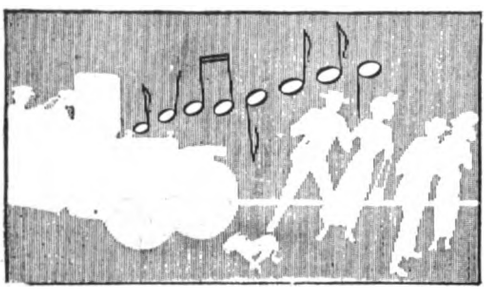
The Neverout complies with the laws of the various States and Municipalities.

The Neverout burns kerosene ten hours with one filling, and will stay lighted under any and all conditions. All riveted—will not rattle or jar apart over roughest roads.
Made in gun metal, brass or nickel finish. Double clamp bracket furnished; fastens lamp securely to fork of motorcycle. No danger of shaking off, and *shows red rear danger signal.* Sold by leading jobbers and dealers everywhere.
The Neverout is equipped with a *Patent Glass Covered Reflector of German Silver,* instantly removable; never loses its original brilliancy.

Guaranteed to stay lighted or money refunded

FOR SALE BY LEADING DEALERS.

Made Only by **ROSE MANUFACTURING COMPANY**
933 Arch Street, Philadelphia, U. S. A.



IT'S A BIRD

BESIDES THIS

THE NIGHTINGALE WHISTLE

is the best and simplest exhaust horn on the market.

Fits any machine and can be attached in a few minutes by an amateur.

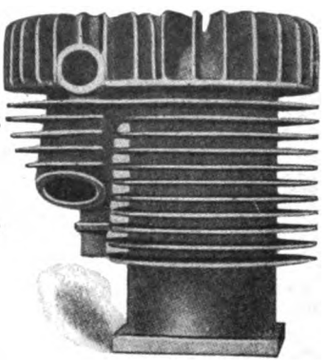
Tones can be varied from a low trill to a screech. Nothing offensive. No cost to operate. Cleans itself automatically. Always ready for instant use.

Whistle, including clamp and elbow, $4.00.

If not at your dealers, write direct to

RILEY-KLOTZ MFG. CO.
17 Mulberry Street, NEWARK, N. J.

Our



Specialty

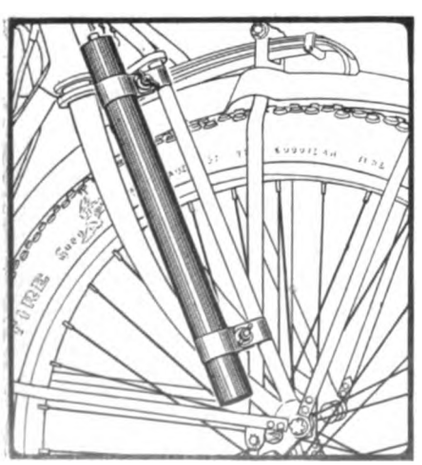
CYLINDERS

From Customers' Patterns Only

Our tremendous organization and manufacturing facilities primarily qualify us as the leading makers of gray iron castings and cylinders, also pattern work, in America.

WRITE AT ONCE FOR PRICES.

RACINE FOUNDRY CO.
RACINE, WIS.



DON'T GET STRANDED

Carry the NON PUSH GASOLINE TUBE with you

Price $1.50 with Brackets

Weight, 16 ozs. Size, 1½ x 15 inches, holds enough gasoline to run 8 to 10 miles. Can be attached to various out of way places on any make machine. (Specify make with order.) Made of Fine Nickel Plated Brass.
Sent prepaid for $1.50, stamps or money order.

Originated and made by the
PARISIAN NOVELTY CO., Dept. M, CHICAGO

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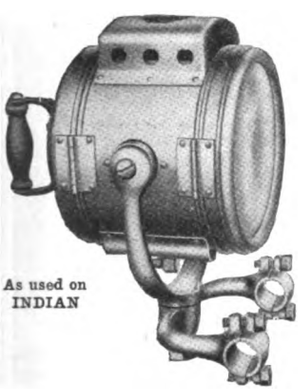
A Close Second to the Sun

The Lamp de Luxe for the Motorcycle
A Beam of Light One Hundred Yards

Quality only has been considered in making the PATHFINDER SEARCHLIGHT. The result of years of experience in the manufacture of only high-grade lamps is embodied in the

Pathfinder

which, we confidently assert, HAS NO EQUAL ON THE MARKET today. The double swivel brackets permit of turning light in any direction while riding. Opens back and front for cleaning or lighting.



As used on INDIAN

If your dealer can not supply you, we can ship direct. Specify make of machine, as special solid brackets are made for each model. A great lamp for motor boats.

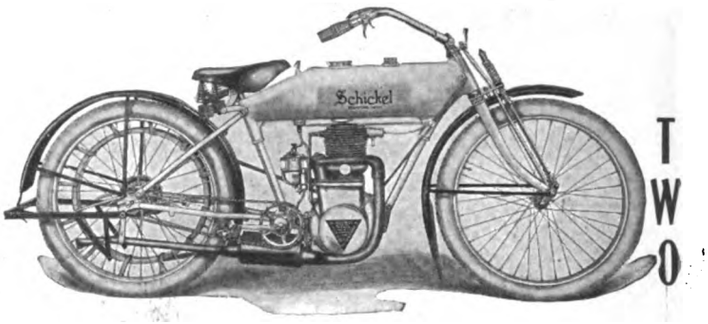
Some of our competitors are manufacturing a mere imitation of the Pathfinder lamp. Be sure you get the original. Look for the name PATHFINDER.

WRITE TODAY

Send a postal today to Dept. J for our new booklet.

Pathfinder Lamp Co.
149 N. 4th Street
COLUMBUS, OHIO

Schickel Schickel



VALVELESS TWO STROKE

SERVICE

FIRST, LAST and ALL THE TIME

THAT'S WHAT **Schickel**
MOTOR CYCLES
ARE DESIGNED AND BUILT FOR

IF YOU WANT ABSOLUTE DEPENDABILITY WRITE TODAY, AND LET US TELL YOU ABOUT THE MOTOR WITH OVER THIRTY LESS WEARING PARTS

The Schickel Motor Company
59 GARDEN STREET STAMFORD, CONN.

Schickel Schickel

STOP—
RIGHT HERE

PAT. PENDING

Think what this advertisement is introducing. A practical gasolene filter that filters the gasolene as it is used. A neat little device highly nickel plated. It attaches to the tank nipple simply by using a wrench. No alterations have to be made to attach it. Easily cleaned. Guaranteed not to check the flow of gasolene.

Will absolutely stop all carbureter trouble due to clogging with sediments, tank scales, dirt or any other foreign matter. By using this filter the carbureter is always supplied with pure, clean gasolene which means a good mixture. With a good mixture you will have a smooth running motor, giving more power and speed. If you do not use this filter your carbureter is liable to clog at any time causing the motor to miss, and in most cases to stop. A stop of this kind is often very puzzling and is not overcome until the carbureter is taken off and cleaned. Avoid all this trouble by putting on one of these filters in time. It will do for you what it is doing for others. In ordering give name of your machine. Agents wanted. Dealers write for discounts.

Price $1.50

MOTOR CYCLE FILTER MFG. CO.
2408 EAST 38th STREET
KANSAS CITY, MO.

LEGGINS CLOTHING
AND SPECIALTIES

Buy the Best Forget the Rest

NATHAN

THE BEST

Koveraul Garment Complete
made of the best quality Olive Drab Khaki at $7.50
and made of the famous Nathan Olive Drab "Neverleak" at $9.00

The Nathan Motorcycle Suits
are the best made. If they were not, I would not personally guarantee them. Complete Norfolk coat and riding pants, made of best quality Olive Drab Khaki at $6.50
and made of the famous Nathan Olive Drab "Neverleak" at $8.50

I TELL YOU THIS

If I didn't believe that **Nathan Garments** and **Motorcycle Leggins** were worth more in actual quality value than any others marketed, I would never allow my trade-mark name to appear on them. Look for my trade-mark; it appears on every article we make.

For sale at all good dealers. If your dealer will not supply you, send direct to us.

Send today for our **New Catalogue**
EDWIN B. NATHAN, Pres.
NATHAN, 84 to 90A Reade St., N. Y. City

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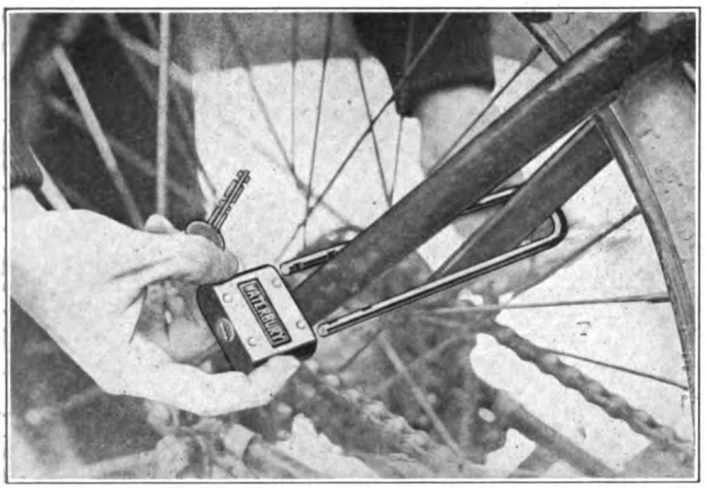
Waterbury Motorcycle Lock

PREVENTS theft or joy-riding

The only lock which cannot be forced, picked or pried open.

EASY TO USE!! **EASY TO CARRY!!**



DEALERS! Get Our Proposition NOW! TODAY!

on this best selling accessory.

RIDERS! buy of your local dealers or mail us ONE DOLLAR in stamps or money order and lock will be sent prepaid.

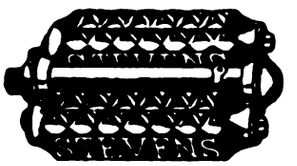
WATERBURY HARDWARE CO., 414 BROADWAY NEW YORK

"Stevens"

Your Guarantee for Quality Goods

CELEBRATED MOTORCYCLE PEDALS

Strong, High Quality, Beautiful Finish, Full Size.



BLUEMEL'S CELLULOID FRAME PUMPS

The Standard of the World.

THE STERLING.
Embossed handle, trade mark in gold.
15 ins. long, ⅞ in. dia.

THE RELIABLE.
Embossed handle, 15 ins. long x ⅛ in. dia.

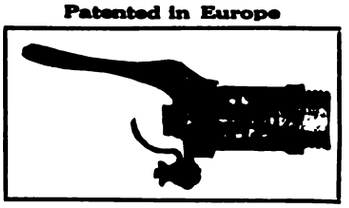
Far superior to brass pumps in every respect. Handsome, Indestructible, Perfect. Order through your jobber.

STEVENS & CO.

375 Broadway, NEW YORK

IF THE M&M ECONOMIZER COULD TALK WE WOULD NOT HAVE TO ADVERTISE

Patented in Europe



Patented in America

The M&M is positively guaranteed to save from 40 to 50% of gasoline, and increase the speed and power 20% with less gasoline and less carbon. With the throttle set at twelve miles per hour, by opening the M&M your mileage will be increased to eighteen or twenty miles, WITH THE SAME AMOUNT OF GASOLINE, and LESS CARBON.

The M&M is the only known carbureter adjuster on the market, and can be used for priming the engine. Do not throw your old carbureter away until you have applied our device. THEN NOTICE RESULTS. The M&M is also one of the greatest carbon eliminators on the market, and also acts in the capacity of an air-brake. In fact, IT IS BECOMING THE RAGE IN MOTORCYCLISTS' REALM.

The M&M can be successfully applied to any motorcycle on the market. It requires a ¼" pipe tap to insert into manifold, but can be reduced to ⅛" if necessary. It is made with one valve and six portholes, which admit auxiliary air into the manifold, and will give you that uniform mixture which is ABSOLUTELY NECESSARY in order to obtain SPEED and POWER. The M&M is nickel plated and highly polished.

HOW ABOUT THIS LETTER!

Milwaukee, Wisconsin, No. 842 30th Street, April 22d, '13.

Moller Bros., Phila., Penna.

Gentlemen:—I have placed an M&M Economizer on my 9 h. p. DE LUXE Motorcycle, and have found it to be a great success in more than one way. By opening the M&M, I can increase my speed 15 miles per hour or more. It also gives me more power in climbing hills. I find it is a great saver of gasoline, and the money saved on gasoline would pay for the M&M in a very short time. With the magneto cut off, I can use my engine as a brake, by leaving the compression on, and at the same time cool off my engine, by absorbing in cool air. I believe the M&M will work just as well on a smaller horse power engine, and I am sure that any rider would be as well pleased with it as I am. Yours very truly, JAMES A. STEWART.

WE GUARANTEE THE M&M TO DO JUST WHAT WE CLAIM, or money will be refunded in 30 days. (Reference—Citizens National Bank, Lewistown, Pa.) No dealer or jobber is authorized to sell without giving our guarantee.

Send for our catalogue and information. **PRICE OF THE M&M ECONOMIZER—$1.25 PREPAID.** **BEWARE OF INFRINGEMENTS!**

Moller Brothers Controller & Economizer Company

Main Office: 700 Betz Bldg., PHILADELPHIA, PA. **Factory, LEWISTOWN, PA.**

DEALERS! GET OUR 1913 CATALOG—NOW READY

THE SIDNEY B. ROBY CO.
ROCHESTER, N. Y.

Bicycles .·. Bicycle and Motorcycle Sundries Garage Supplies

"OMC"

Motorcycle Supplies

If you want to secure "Gulliver" quality at "Lilliput" prices—or in other words—a lot of value at small cost, send for our catalog of OMC motorcycle supplies. Everything for the dealer and rider. Don't fail to get our catalog.

OBERWEGNER MOTOR CO.

TOLEDO, O.

Whipple Special Bargains

1912 Thor White, 5, $175; racing Thor, 4, very fast [from Riverview track], $100; 1912 four-cylinder Pierce, $250; 1910 four-cylinder Pierce, $175; 1912 Harley-Davidson, $175; six h.p. Thor Twin, [magneto], cost $300, $140; 1911, spring frame, Greyhound, cost $225, $100. All above machines in excellent condition; mostly late new ones; slightly used; many others down to $25.

WHIPPLE, The Motorcycle Man

Whipple Motorcycle Bldg. **1227 W. Jackson Blvd.**

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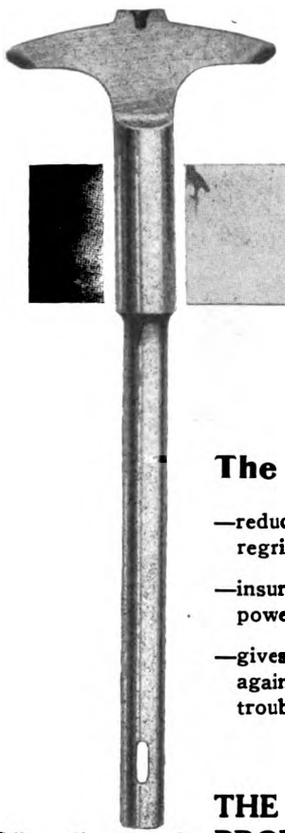


Split section of head showing cast iron rim.

For the Rider's Satisfaction

The Cast Iron Seat Valve

—reduces pitting to a minimum and saves regrinding.

—insures good compression and full power of the motor.

—gives the strongest possible guarantee against breakage and other valve troubles.

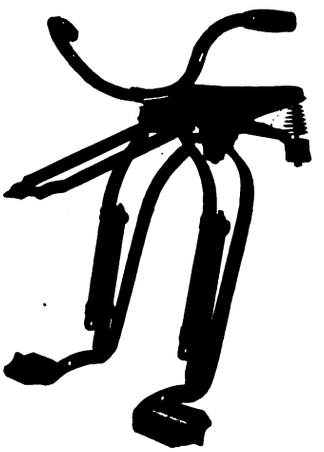
Made in quantities only.

THE ELECTRIC WELDING PRODUCTS CO., Cleveland, O.

Simplicity—Comfort—Stability

The Empire Special

SPRING TANDEM



"IT FLOATS"

You wouldn't seriously consider purchasing a motorcycle that does not possess at least these three cardinal points. Then why permit a tandem attachment to be fitted on your machine, that has not proven to your complete satisfaction that it possesses these three characteristics in full measure? Here is

The Empire Special Spring Tandem

"IT FLOATS"

There is nothing about the Empire Special to get out of order. Simplicity is the keynote of its construction.

By a peculiar and ingenious invention, for which patents have been allowed, the Handle Bars and Pedals are caused to float with the saddle, insuring the maximum of comfort and smooth riding on the roughest of roads.

The famous Kelly No. 10 Adjustable Handle Bars are fitted on all Empire Specials.

Constructed of steel and no malleable parts, the Empire Special is practically indestructible.

Ask your dealer for our booklet. If he hasn't it, send us his name and you'll get one by return mail. The Empire's proof of superiority is in it.

EMPIRE SPECIALTY COMPANY

Office, 147 The Arcade CLEVELAND, OHIO

CHAS. E. WEAVER, Sales Manager

MOTORCYCLISTS PREFER

BILLINGS & SPENCER TOOLS

"The tools that are guaranteed"

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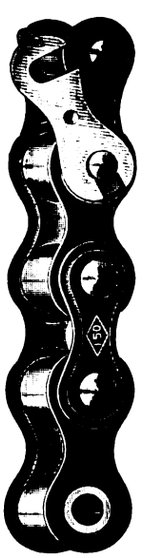

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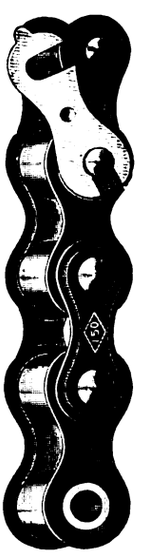

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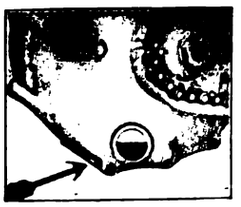

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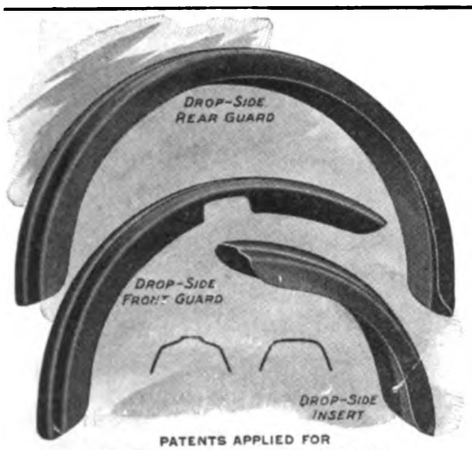

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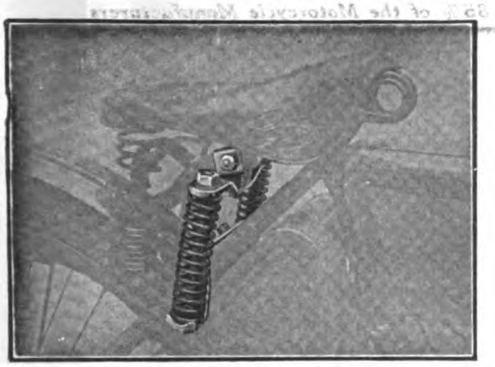

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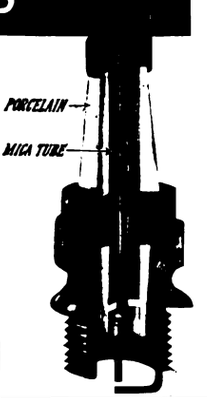

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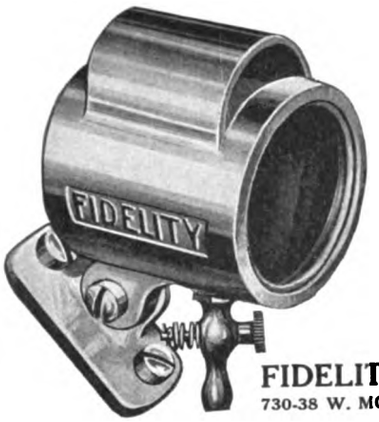

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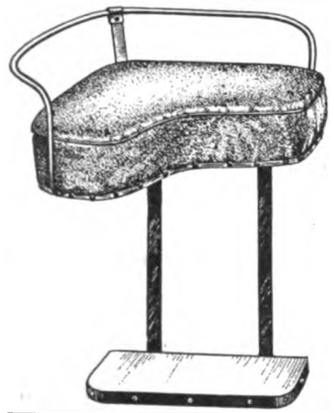

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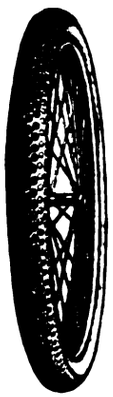

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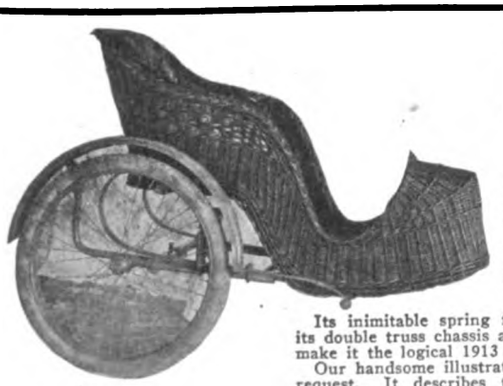

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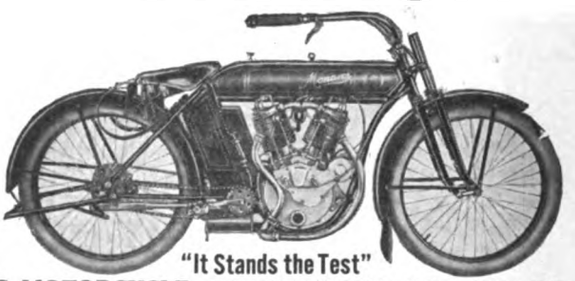

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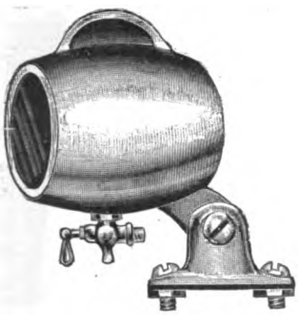

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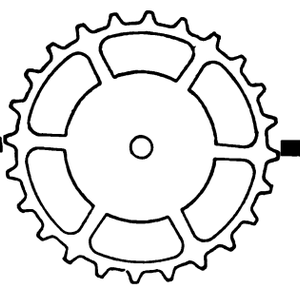

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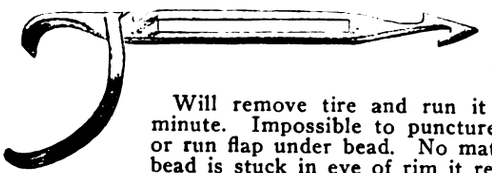

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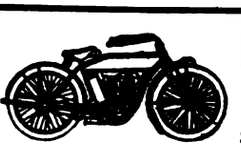

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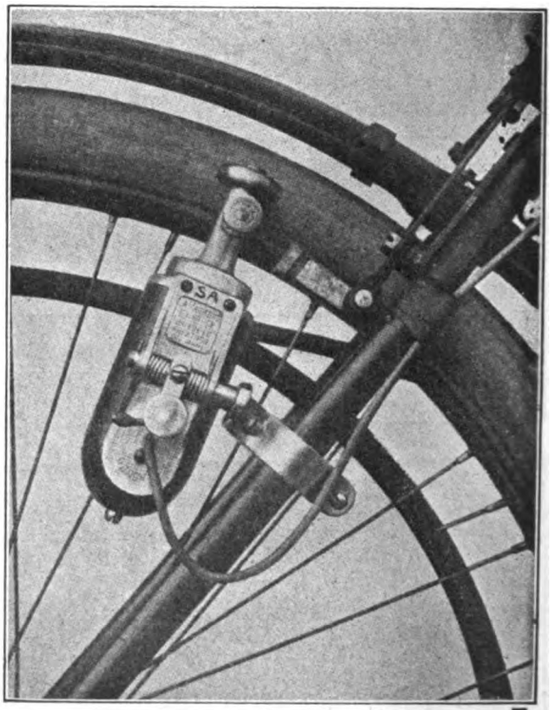

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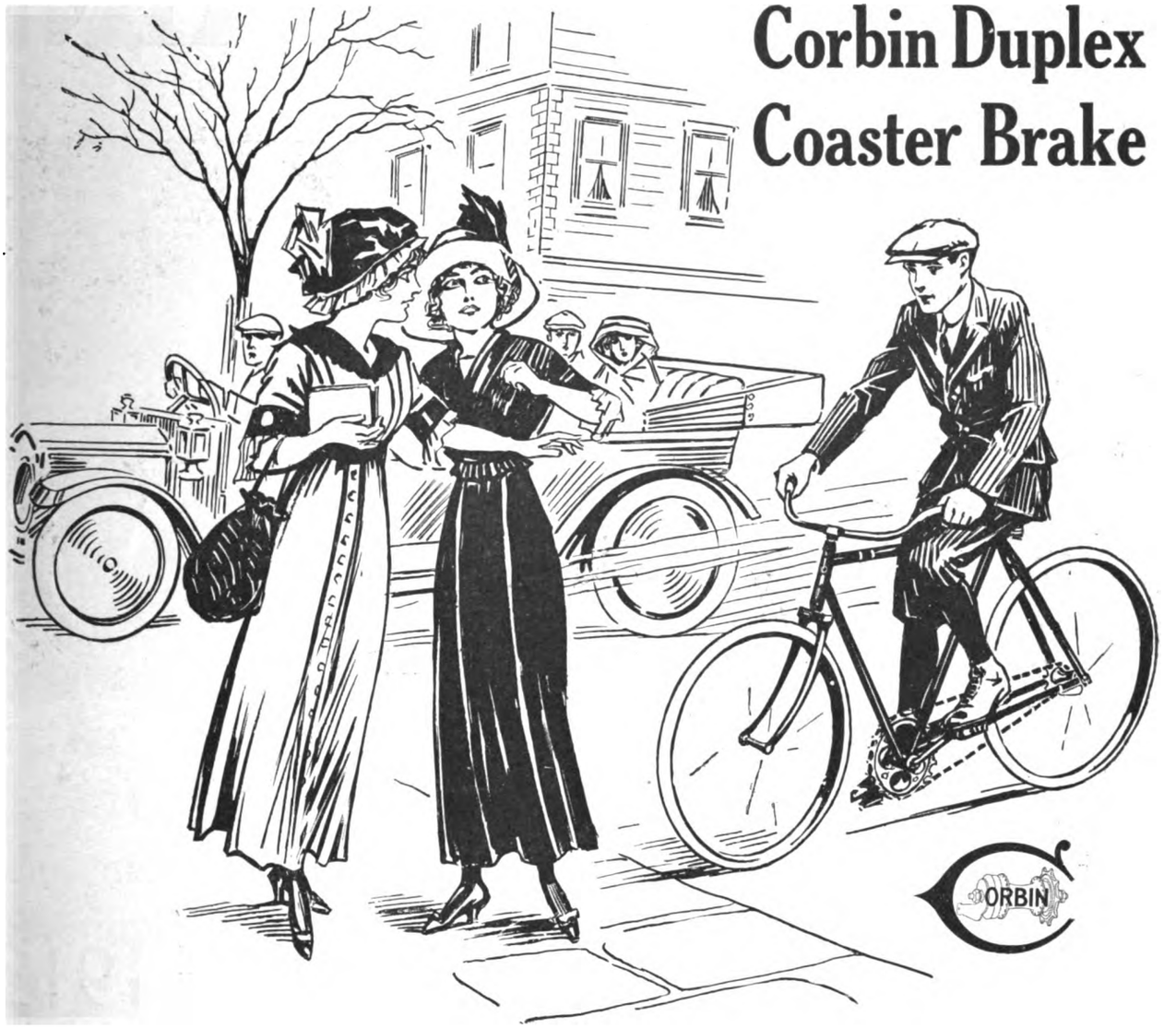

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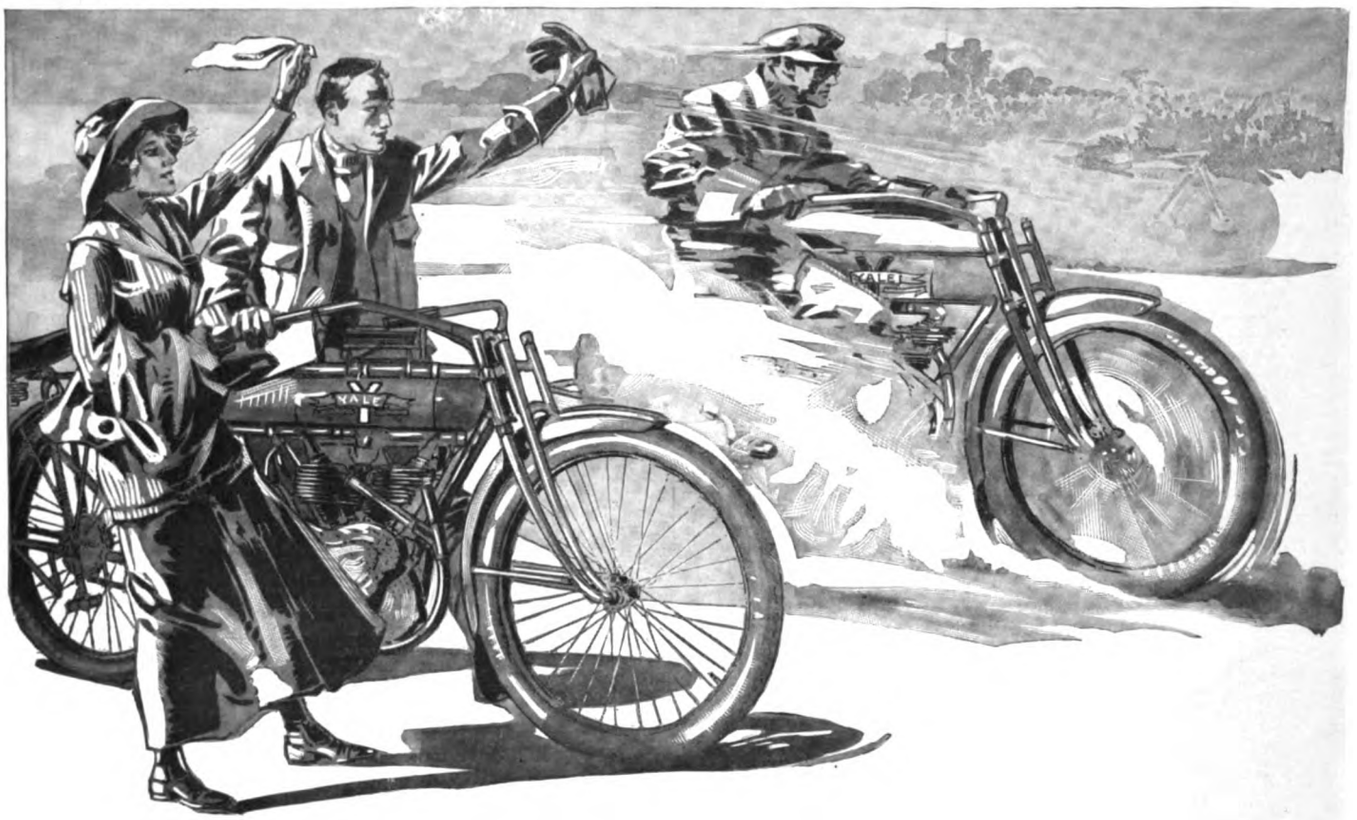

THE big endurance contests of 1913 add still more victories to the long list of Yale winnings—winnings that have made the "Big Y" the National Road Champion.

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YALE WINS

Again the Yale won decisively in the 200-mile reliability run of the Newark, N. J., Motorcycle Club, May 11. The handsome team trophy was taken by the Yale Squad, P. W. Stevens, George Riechey and O. W. Stevens, with 949 out of a possible 1000 points.

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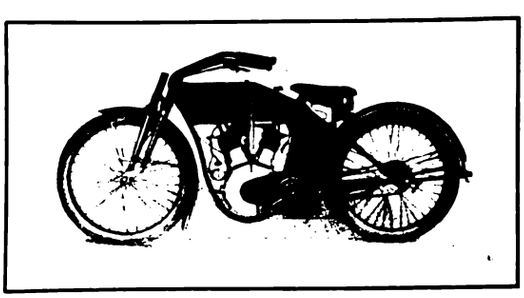
The EMBLEM, as usual, has established another startling road record. Through fierce drenching rainstorms, over roads practically washed out; over, under, through and around every imaginable road condition, the EMBLEM "Ten" with a total weight of 800 pounds made the run from Angola, N. Y., to Boston, Mass., a distance of a little more than six hundred miles, in the actual time of 19 hours! A truly marvelous performance, you say? Yes, but nothing unusual for the sturdy, powerful, economical, ever-reliable

EMBLEM

Endurance trials of this description are the real tests of a motorcycle's claims. Nothing can bring out with such merciless clarity the weak and strong points of a motorcycle as a test of the nature as detailed above. And in this worth-while field the EMBLEM has **always** reigned supreme.

Think of it! An average speed of over thirty miles an hour for nineteen consecutive hours of fierce "road bucking." If that test does not conclusively show absolute "class" in a motorcycle, what under the sun can? We leave it to the riders to judge.

Dealers—Performances like these help to keep the Emblem on the pinnacle of perfection in the eyes of the riding public. It is up to you to seize the advantage which undoubtedly will be afforded the EMBLEM dealer, and write us **today** for our proposition; tomorrow never comes.



Emblem Mfg. Co.
Angola, Erie Co., N. Y.

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Elyria-Dean
TRADE MARK

THE "MAXO" HORN

An Electric Warning Signal for Motorcycles

GUARANTEED

Price

$5.00

Complete with Cord and Button

The "Maxo" adds value to Motorcycles.

The "Maxo" is manufactured by the makers of the Tuto and Rexo Automobile signals.

Inexpensive to operate.

Easily installed, as it is provided with universal mounting bracket.

An adjustable clamp is provided to attach push button.

Furnished complete, including Baked Black Enamel Horn and Button, Connecting Cord and Instruction for Mounting.

The "Maxo" is the only Electric Warning Signal built especially for the Motorcycle service and carrying an unlimited guarantee.

TO DEALERS—We have an interesting proposition for you as our agents. Ask for it today.

MANUFACTURED ONLY BY

THE DEAN ELECTRIC COMPANY

603 Taylor Street

Kansas City **ELYRIA, OHIO, U. S. A.** **San Francisco**

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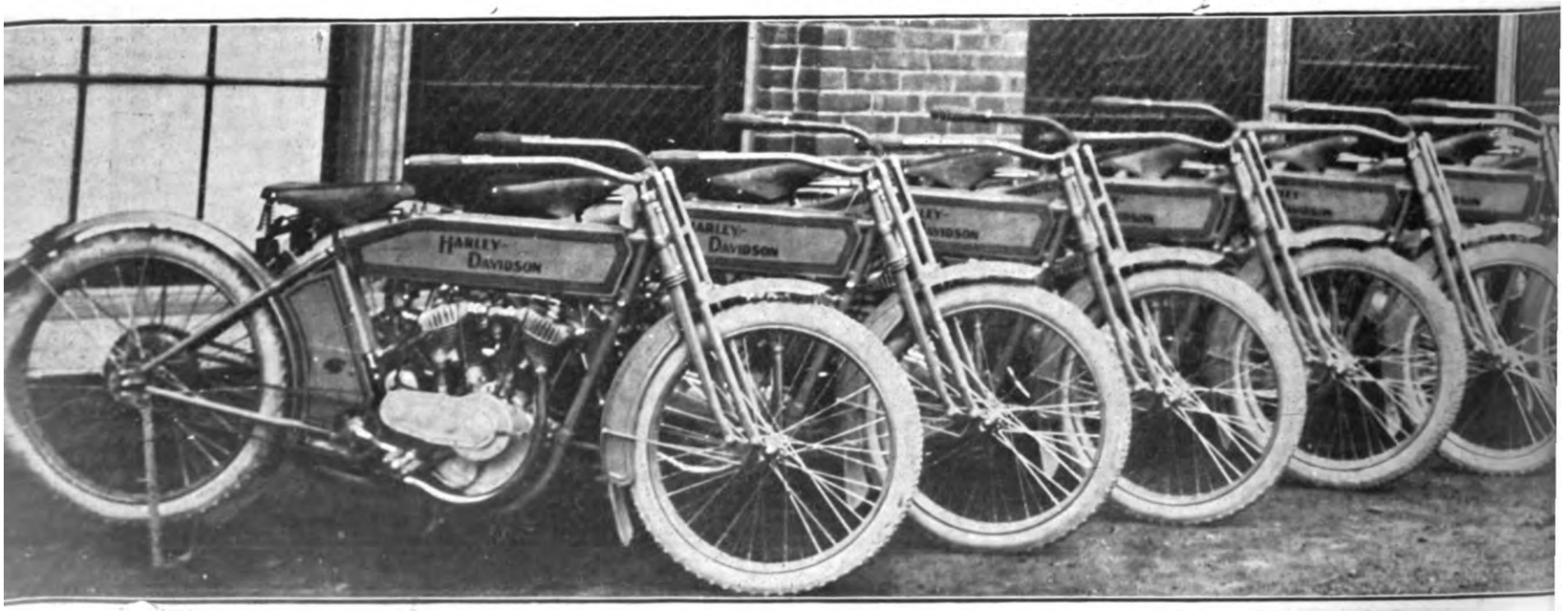
Landed-Ano

ON the recommendation of the Police Department, the San Francisco Board of Supervisors have just purchased 20 more Harley-Davidsons for police duty.

The police records prove conclusively that the 10 Harley-Davidsons purchased 7 months ago and in daily use by hard riders were the most economical for oil, gasoline and general maintenance of any make used. Although the competition for this order was something

Harley-Davidson Motor Co.,

Producers of High Grade Motorcycle



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ther Big One

fierce—in fact the keenest we believe that has ever been brought to our attention—Joseph Hollo, the Harley-Davidson dealer, whose bid, of course, was the highest submitted, landed the order, offering only the regular Harley-Davidson guarantee.

Other dealers went so far as to even offer discounts to the Police Department on the subsequent purchase of supplies. Actual police records, however, were something that could not be side-stepped, and the Supervisors purchased on the basis of *actual value.*

59 C Street, Milwaukee, Wis.

More Than Eleven Years

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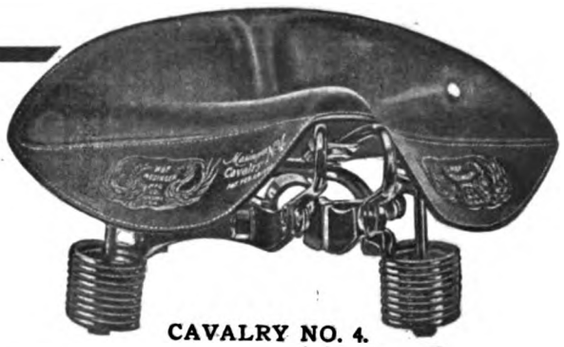
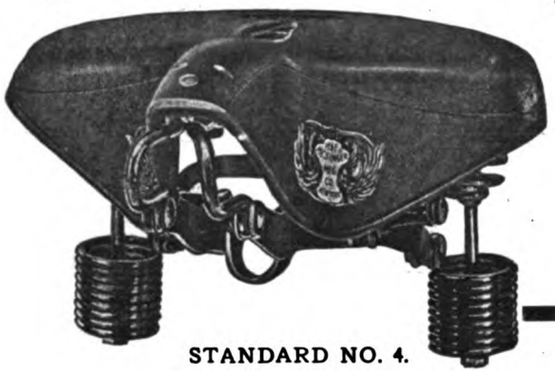
The Mesinger Saddle Not Only Satisfies---It Delights the Rider

The Mesinger Saddle is not merely negative in its service —that is, it is not simply a "satisfactory" saddle. It is more than that. By its ease of support, its clean, free play and its floating velvety movement it rises **above** the mediocre and becomes spectacular. In other words, the added comfort which the Mesinger gives causes comment on every side.



CAVALRY NO. 4.

THE MESINGER "SUPERBA"



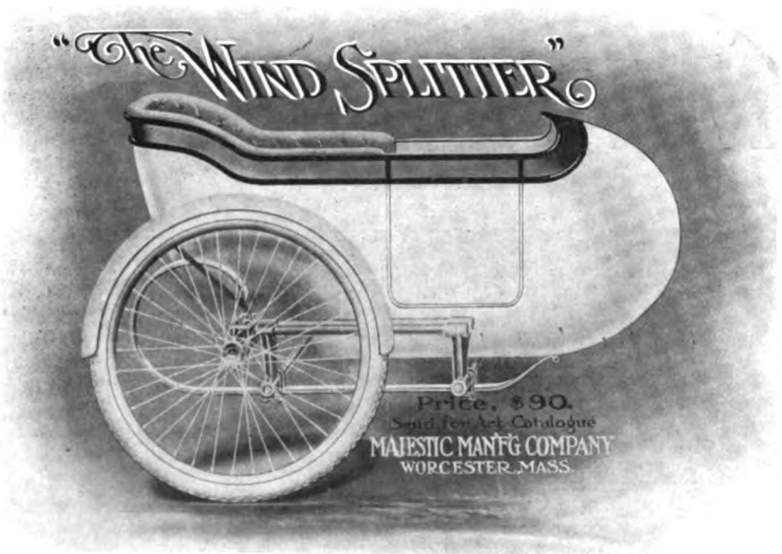
STANDARD NO. 4.

And, from the durability standpoint also, the Mesinger Saddle is more than merely "good." A total absence of castings, leather of the highest grade and above all, keen and conscientious manufacturing methods make the Mesinger Saddle the peer of its class.

"Ask the Rider and Watch Him Riding"

H. & F. Mesinger Mfg. Co.

144th Street, Austin Place New York



IT'S OUT

"The Wind Splitter"

The Highest Attainment in
SIDECAR LUXURY

Coach-built Metal Body, New Type UNDERSLUNG CHASSIS, with Low Center of Gravity, giving ample Road Clearance.
Adjustable Wheel and other Exclusive and Advanced Features.

"DISTINCTIVELY MAJESTIC"

Write or Wire Today for Specifications and Terms.
MAJESTIC REED BODY MODELS on Immediate Delivery.

MAJESTIC MANUFACTURING COMPANY

38 Southbridge Street WORCESTER, MASS.

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Thor

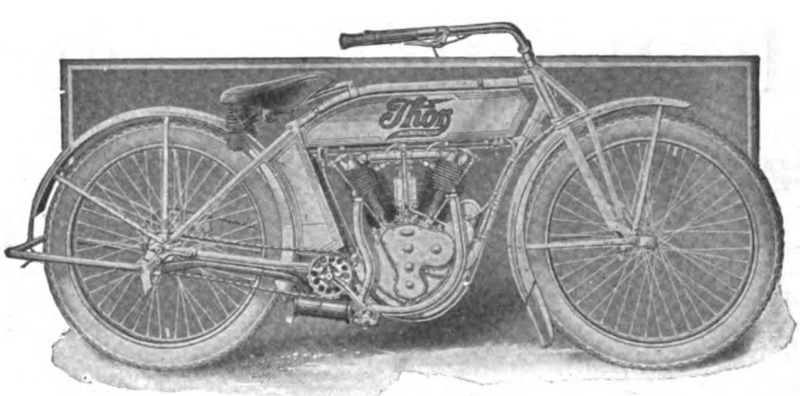
World's Highest Grade Motorcycle

THREE MODELS

Thor	*Thor*	*Thor*
4 H. P.	5 H. P.	7 H. P.
Single	Single	Twin

Have you seen the Original Chain-Drive Motorcycle, the machine with the established reputation for durability and elegance? Have you seen the All-Steel Clutch which runs in oil? Have you seen the wonderful ***Thor*** Patented Internal Gear which does away with the noisy, troublesome and dirty short chain; in fact, the only Direct Chain Drive on the market? Have you seen the Mechanical Oiler which lubricates perfectly without attention from the rider? Equipped with a spring seat post which absorbs the big and little shocks and makes every ride a pleasure and, above all, every ***Thor*** rider can point to his machine and say:

"IT TAKES ME THERE AND BACK"



We are selling large numbers of Two-Speed Models. Every owner is proud of his mount on account of the great power of the motor and the simplicity of the Two-Speed Gear.

Don't take our word for it, but call on our agent in your city and see for yourself. If there is no agent in your locality, write us direct for full particulars and descriptive catalogue.

Aurora Automatic Machinery Company

General Offices: Thor Building, 1307 Michigan Avenue, Chicago, Illinois

Pacific Coast Distributor: Pacific Motor Supply Co., 1440 Market St., San Francisco, Cal.
New York City Distributor: New York Motorcycle Co., 782 Eighth Ave., New York, N. Y.
Boston, Mass., Distributor: W. F. Mann Motor Co., 356 Columbus Ave., Boston.

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What's Your Particular Tire Complaint?

Punctures? Rim-cutting? Cracking of tire walls? Excessive wear on tread or walls? Only Continental-Erie tire users realize that these troubles are **not** to be borne with patience and resignation, as "necessary evils." The marvelously accurate methods of construction plus materials whose durability and quality have been proven by years of study, research and actual **road experience** makes for an absolute absence of tire troubles in

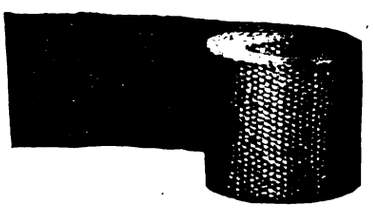
Continental-Erie Tires

"The Tires of Greater Service"

Continental-Erie Tires have no spectacular track-racing records to their credit, and we are proud of it. But the hundreds and thousands of brilliant endurance records, transcontinental runs and other real tire tests have invariably brought out the "greater service" of Continental-Erie Tires. "ASK THE JOBBER, HE KNOWS."

NON-SLIP-LAG

To bring your belt up to the maximum of its efficiency and keep it there, Continental-Erie Non-Slip-Lag is the thing. It increases the life of the belt, prevents its tearing, cracking or stretching. It eliminates all slippage. Order a roll today from your dealer.

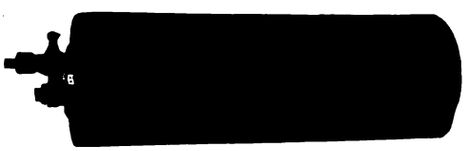


Continental Rubber Works

ERIE, PA.

Of Course You Want The Best Light! Why Not?

Carbo-Light Tank



Carbo-Light Tank

It's human nature for one to want the most for his money.
And when that "most" comprises the best, most convenient, economical and satisfactory motorcycle light on the market, why hesitate?
Where else can you get a full tank of gas in five minutes for five cents?
There is no answer!
This month's business has smashed all records.
Compelled to open a foreign sales office in New York City.
Our California Distributor takes 1000 tanks.
Mail order department working overtime.
Which goes to show we are getting the business.
Why shouldn't we? We have no competitors.
Still, we have not boosted the price.
Dealers, Agents and Riders, we want your business.
Generous discounts and exclusive agencies.
Write us for literature and agency terms.

CARBO-LIGHT SALES CO. - Anderson, Ind.

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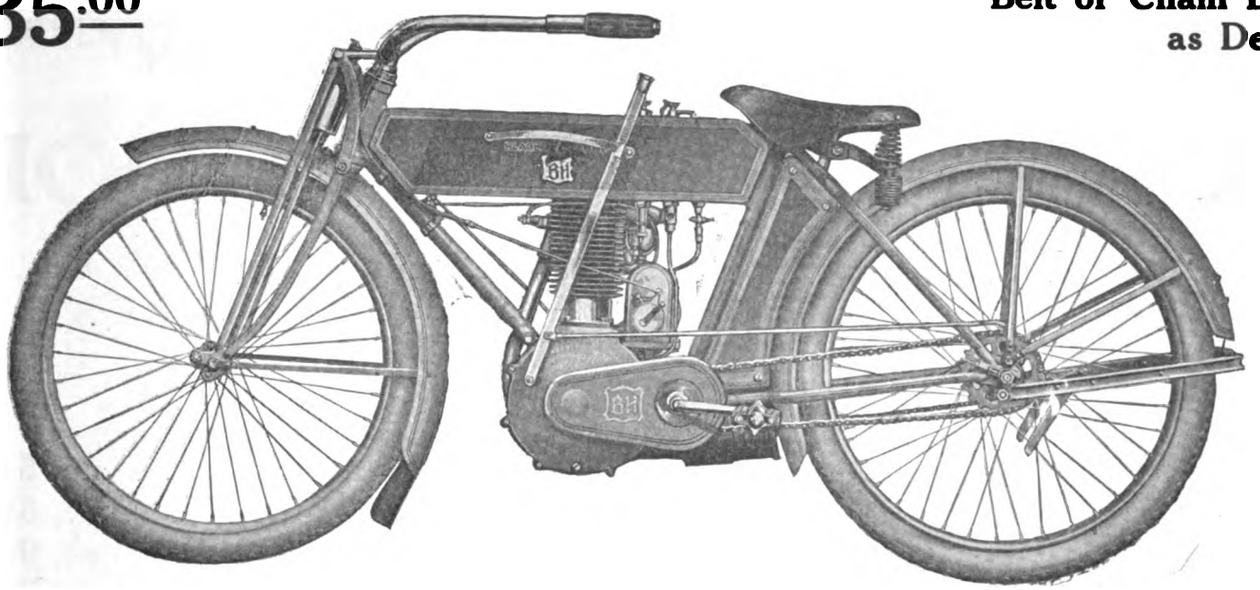
$235.00

Belt or Chain Drive, as Desired



The "Dark Horse" In The 1913 Race For Motorcycle Sales Honors—

The "BLACK HAWK"

Astute motorcycle dealers—especially those who have been longest "in the game"—are hastening to secure the local agency for this new motorcycle that is justifying the predictions of the shrewdest veterans in motorcycledom. On its first appearance, just before New Year's, it was admitted by those most familiar with motorcycle history that here at last was "the last word in motorcycle perfection"—

The Most Perfect Specimen of Motorcycle Designing

This new motorcycle is breaking **all** first-year sales records. Wise motorcycle salesmen—those who **know** motorcycle superiority—are getting aboard the "BLACK HAWK" agency band wagon. How about you?
If you are a "live wire," between us we can make "the sparks fly." Send for catalog.

Black Hawk Motor Company

Dept. B. Rock Island, Ill.

Four Of The Reasons Why The BLACK HAWK Is Forging Ahead In Motorcycle Sales

NEXT-TO-NO VIBRATION. The fly-wheels are almost as accurately balanced as a main spring of a watch and made with maximum weight in rims, so that energy is stored in the fly-wheel rims to overcome the natural inertia at center when "speeding up" or hill climbing.

AUTOMATIC ANTI-CLOG OILER—Oil flows automatically, increasing with speed of machine and stopping when engine stops. Oil pump has only one moving part, making clogging, with consequent engine troubles and over-heating, impossible.

NEW WONDERFULLY EFFICIENT MUFFLER—Its worth proven 18 full months before being made a part of the Black Hawk. On all ordinary speeds hardly any noise at all, yet it entails only 2 per cent. loss in power as against 15 per cent. loss with the ordinary type muffler.

EASILY REMOVED AND REPAIRED TANK FITTINGS. In case of accident, tank fittings can easily be removed, and repaired or replaced on the road, since all fittings are put into tank with special compression method.

When writing to advertisers, please mention MOTORCYCLE ILLUSTRATED.

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THE EXCELSIOR SLOGAN

"ALWAYS MAKES GOOD"

Again in the foreground at Joliet, Sunday, May 25
Winning SEVEN Firsts—One Second, on

Strictly Stock Machines

5 Mile Novice—30.50 Stock—Excelsior 1st	Time, 5:45 4/5
5 Mile Novice—61.00 Stock—Excelsior 1st	Time, 5:15
10 Mile 61.00 Stripped Stock—Excelsior 2nd	Time, 9:35
10 Mile 61.00 Fully Equipped Stock—Excelsior 1st	Time, 9:54
10 Mile 61.00 Stripped Stock—Excelsior 1st	Time, 9:35 1/5
6 Mile 30.50 Stock—Excelsior 1st	Time, 7:12 1/5
8 Mile 30.50 Stripped Stock—Excelsior 1st	Time, 8:39 4/5
10 Mile 61.00 Match Race—Excelsior 1st	Time, 9:26

The above again proves the repeated claims of EXCELSIOR EFFICIENCY

DEALERS, START YOUR BUSINESS RIGHT

BY SECURING THE EXCELSIOR

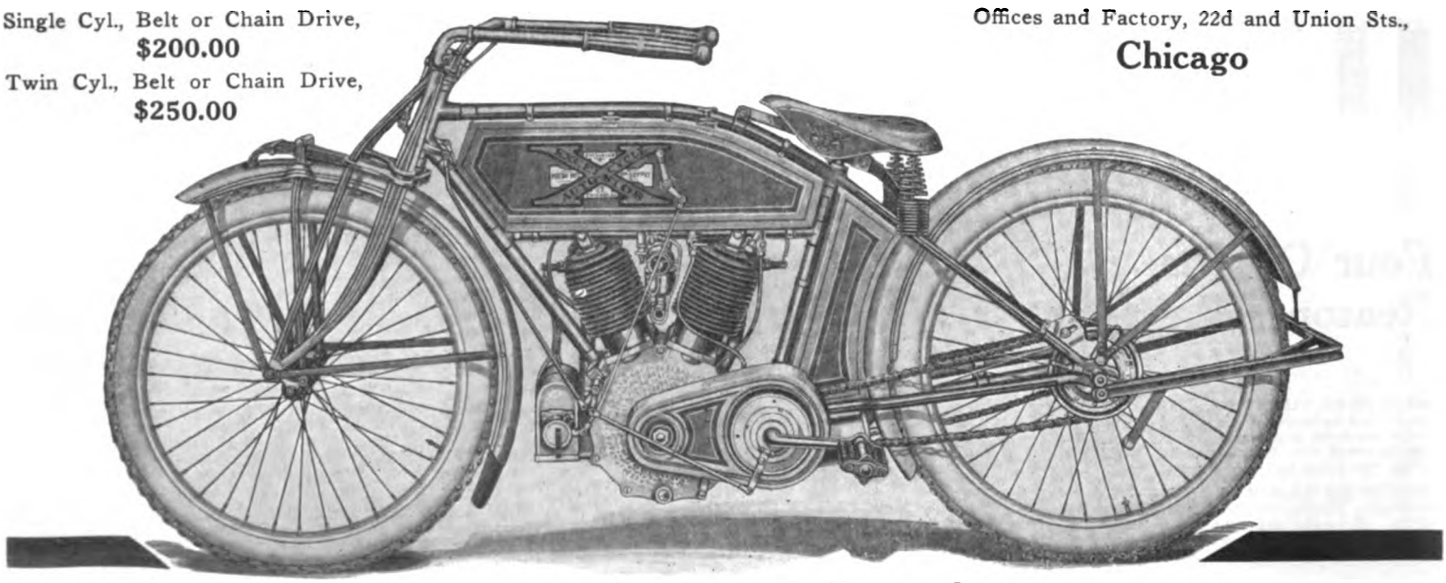
THE FASTEST AND MOST POWERFUL MOTORCYCLE IN THE WORLD

Write today for our "OPEN TERRITORY" proposition

Excelsior Motor Manufacturing & Supply Company

Single Cyl., Belt or Chain Drive,
$200.00
Twin Cyl., Belt or Chain Drive,
$250.00

Offices and Factory, 22d and Union Sts.,
Chicago



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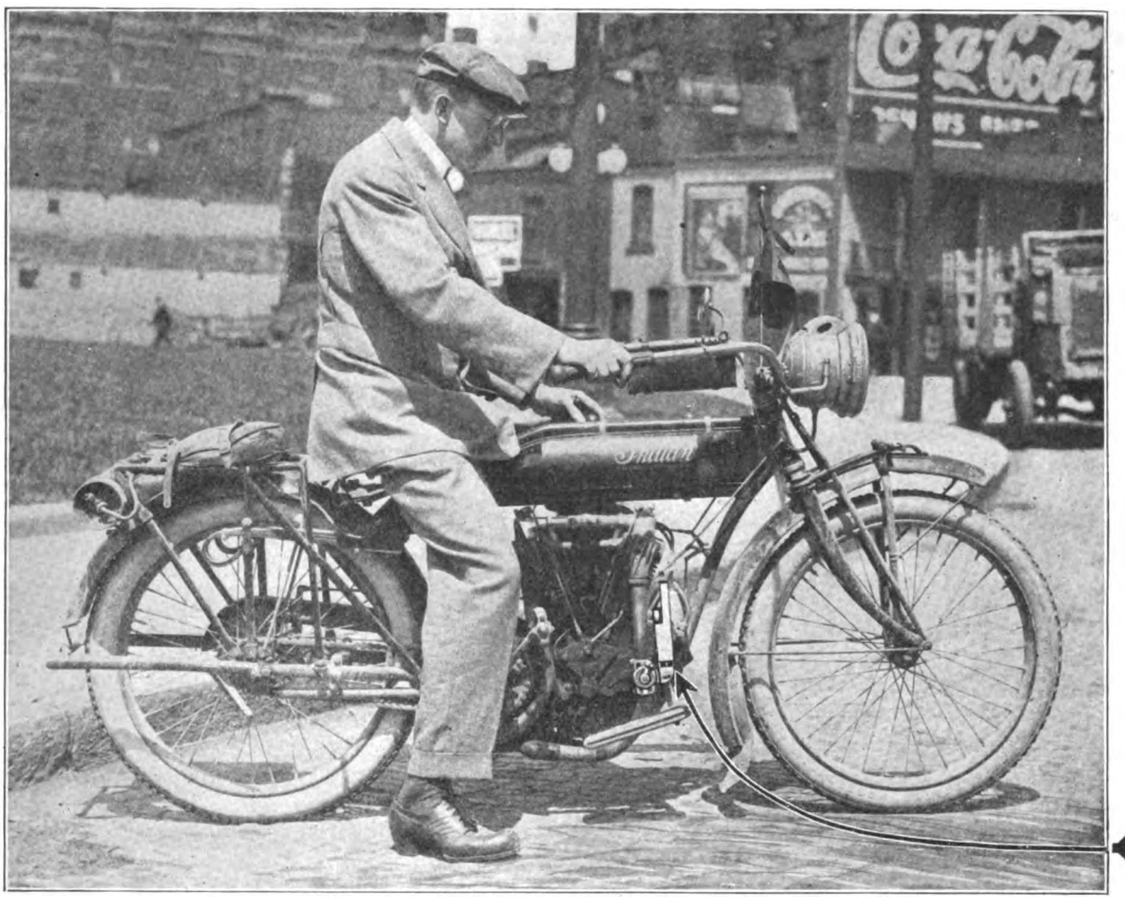
TRINITY CHIMES EXHAUST HORN

YOU CAN HEAR IT EVERYWHERE



THE MOTORCYCLE WARNING SIGNAL

Read what the Manager of the Motorcycle Department of H. R. Olmsted & Son, Syracuse, says about "Trinity Chimes":

"Syracuse, N. Y., May 10th, 1913.

"Gentlemen:—

"It may be of interest to you to know how well satisfied I am with 'Trinity Chimes.' I am glad I have at last found an exhaust horn that works every time I want it to. I use the horn constantly and it has never clogged up. Although I ride over all sorts of rough roads the vibration has never jarred it loose, and it has not been necessary for me to look it over. It is always on the job. Its warning is really pleasing to all who hear it and it certainly does clear the road. I am enclosing a photograph showing the horn attached to the motorcycle I am riding.

"Wishing you continued success, I am,

"Yours very truly,

"J. F. FYNMORE."

This is but one of the numerous testimonials we have received from satisfied riders and dealers all over the country.

—TO DEALERS—

"Trinity Chimes" is a money maker from a selling viewpoint. It is easily the biggest seller in the accessory line—it needs only to be heard. We SHIP—yes, ship—the goods immediately. That is more than a mere promise of delivery.

Exceptional Offer

To all dealers answering this advertisement we offer a Special Discount in addition to our regular proposition. It is more than a departure from our regular proposition, and it behooves all dealers to "go to it" NOW.

COMING MANUFACTURING CO.

Railway Exchange, Chicago, Ill.

Coming Mfg. Co., Dept. L, Railway Exchange, Chicago

Please send me illustrated catalogue of "Trinity Chimes" and tell me about your Special Offer which expires June 20th.

Name .....

Postoffice .....

State .....

When writing to advertisers, please mention MOTORCYCLE ILLUSTRATED.

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New Departure,—

The last one out and worth waiting for.

Riders are already asking Dealers about it.

It "looks good" to them.

It is exactly the same kind, type and design of a brake as is used in automobiles.

It is powerful enough to hold an automobile, or a motorcycle of several times the horse power of any now on the market.

It gives you everything the autoist has:—

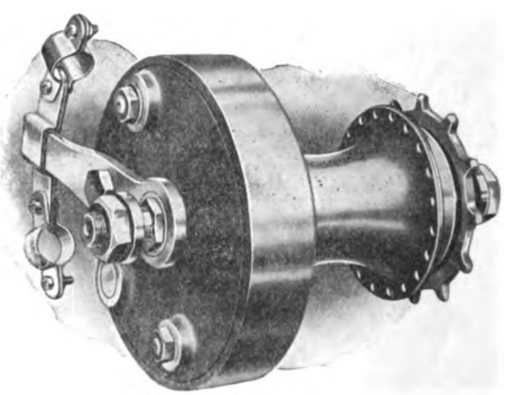
Absolutely reliable control of your motorcycle under all conditions:—

A brake that will not wind, bind or lock:—

A slight back pedaling pressure will exert a retarding force of a ton and a half.

You surely want to know about this newest motorcycle device.

Write for fully illustrated and descriptive literature.



MODEL L

1913 New Departure Motorcycle Coaster Brake for Belt Drive Machines

The New Departure Mfg. Co.

Bristol, Conn.

Coaster Brake Licensors

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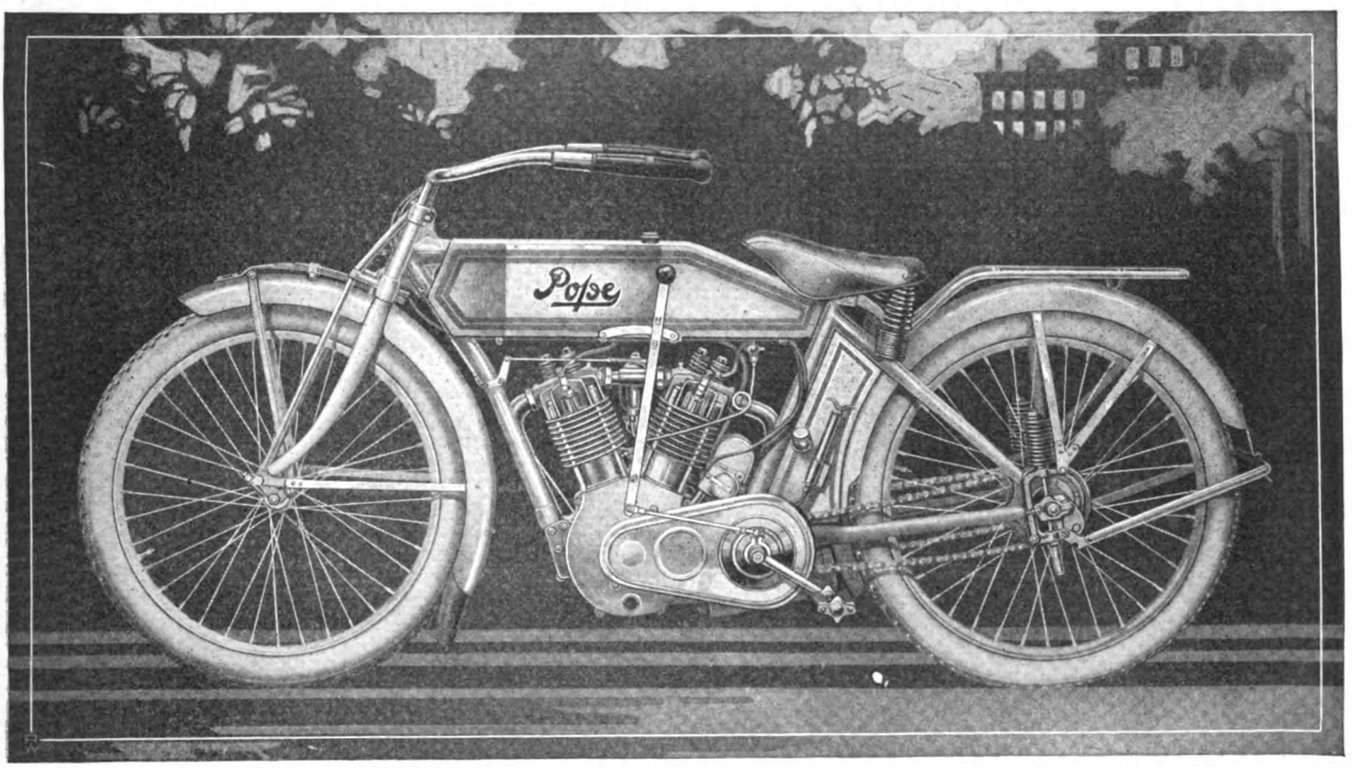
POPE
MOTORCYCLES

Helical Rear Spring Suspension—Spring Fork
Motor with Overhead Valves

RIDING COMFORT ALL THE TIME



Many rear cushion devices retard the speed. The Pope Rear Spring Suspension **assists** instead of retarding progress. The faster you go the more you will appreciate the new comfort features incorporated in Pope Motor Cycles. You can speed more comfortably on a Pope "Twin," or a Pope Model L, than you can on any other two-wheeled vehicle.

The Pope "Twin" holds the road like a big 6-cylinder automobile, wafting you along over any inequalities of the road with a wonderfully smooth, forward gliding motion. No matter how fast you travel, how far you go, or how bad the going, you are sure of riding comfortably all the time, with Pope Comfort Features. The Perfect Balance of Pope Motor Cycles also contributes greatly to the comfort of Pope riders.

OVERHEAD VALVES provides the greatest power and speed with the smoothest running qualities. The entire explosion being directly over the piston head, all energy is applied straight downward with full force.

"Pope Quality Has Never Been Questioned"

FOUR POPE MODELS—Model L, Twin Cylinder, 7-8 h. p., chain drive, Bosch Magneto, $250; Model M, 5 h. p., chain drive, Bosch Magneto, $215; Model K, 4 h. p., belt drive, imported magneto, $200; Model H, Lightweight, 4 h. p. belt drive, imported magneto, $165.

Perfect Scores for Two Pope "Twin" Machines.

Two Pope "Twins" were entered in the recent 200 mile Spring Run of Brooklyn, N. Y., Motorcycle Club, held over Long Island Course. **Both made perfect scores.** Pope riders were W. F. Steyborer and C. R. Burbank. The performance of Pope machines was the talk of the run.

Send for handsome catalog free. Write today

Pope Manufacturing Company - Hartford, Conn.

Also makers of Pope-Hartford Automobiles, Columbia, Rambler, and other Pope Bicycles. Catalogs free.

When writing to advertisers, please mention MOTORCYCLE ILLUSTRATED.

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Prest-O-Lite
For Motorcycles

The Light You Can Depend Upon

Half the pleasure you get from your machine comes after dark.

And good light is as important as tires.

Will you put your safety at the risk of some undependable lighting system?

Or will you use Prest-O-Lite?

It will cost no more to operate than carbide to feed a generator.

Worth Many Times It's Price

Don't consider the price you pay for Prest-O-Lite as money spent—but as an investment. Remember that a genuine Prest-O-Lite never becomes second-hand. It is in such universal use and demand that it can always be sold for about what you pay for it.

$10
With Gauge

30 Days Trial Free

We are so sure that you will find Prest-O-Lite indispensable that we make you this proposition.

Put a motorcycle Prest-O-Lite on your machine. Use it for thirty days and nights. Test it out on every kind of road, for city driving and country road work. Then if you find that you can do without it, the test won't cost you a cent. Can you afford not to make this trial?

Ask your Dealer or Write Us

The Prest-O-Lite Co. 246 East South St. Indianapolis, Indiana

Canadian General Offices and Factory, Merritton, Ont.

Exchange Agencies Everywhere

TO DEALERS:—There are five times as many motorcycle Prest-O-Lites in use today as there was one year ago. Are you getting your share of this business?

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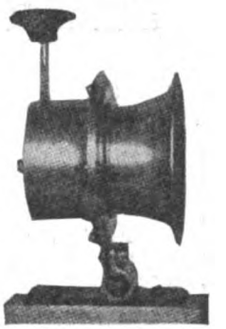
AS EFFECTIVE AS THE LION'S ROAR

The Junior LONG HORN For Motorcycles



Model "J. M."

purely mechanical—not depending upon batteries, magneto, exhaust, etc., for operation.

Therefore Dependable

MOTORCYCLISTS—We know you want a horn that's a REAL NOISE PRODUCER, not a gentle, bird-toned, mechanical toy, but a REAL WARNING SIGNAL that will command the right-of-way without offending.

Here It Is

The JUNIOR LONG HORN—**as effective as the lion's roar**—as competent as its big brother, the automobile edition of the LONG HORN.

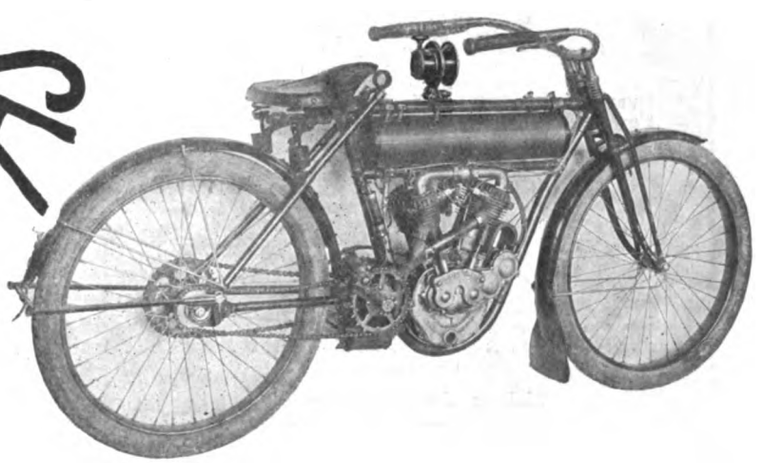
You Can Buy It For $10

Ten dollars worth of the best motorcycle horn ever offered. Every dealer carries the LONG HORN; or write us direct and we will tell you the name of a live dealer near you who does handle it.

The G. Piel Company
13th Street and Boulevard
LONG ISLAND CITY, N. Y.

Attaching Rooms:
61 West 63rd Street, corner Broadway
NEW YORK CITY

Boston: 109 Massachusetts Ave.
Buffalo: 26 Goodrich St.
Chicago: 1332 Michigan Blvd.
Denver: 15th and Curtis Sts.
Seattle: 1229 So. Olive St.
Portland: 329 Ankany St.
Detroit: 510 Majestic Bldg.
Philadelphia: 1427 Vine St.
San Francisco: 530 Golden Gate Ave.



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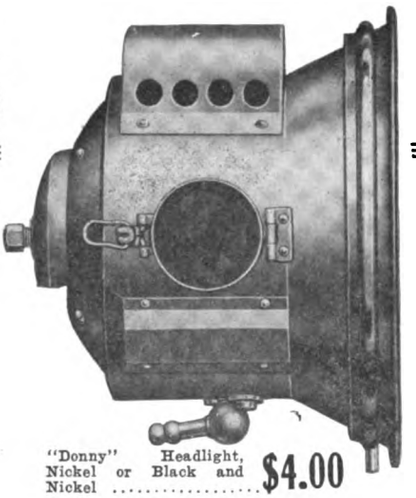
"Solars Satisfy"

"The Lamps with a Pedigree"

"The Lamps with a Pedigree"



"Donny" Headlight, Nickel or Black and Nickel **$4.00**

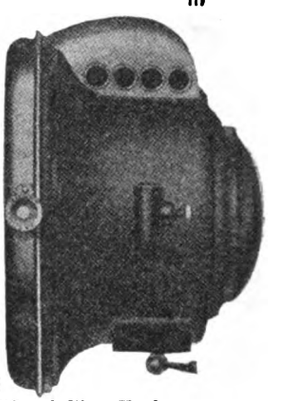
Generator Headlight..... **$7.50**

BUY Lamp satisfaction. This is neatly wrapped up and delivered with every Solar Lamp that is sold. You experience satisfaction first when you note its flawless construction, its gracefully efficient appearance, and you never lose that sense of satisfaction, for Solars give thoroughbred service. There are a hundred and one powerful talking points to be considered in favor of SOLAR Lamps—but the main thing is—your dealer carries them and you can learn for yourself their perfectly simple yet *simply perfect* construction.

Get our catalog. It describes the SOLAR line ***in full.***

Badger Brass Mfg. Co.

Kenosha, Wis. New York City



"Grandad" Headlight, Nickel or Black and Nickel..... **$7.00**

DEALERS!

Send for our Catalog descriptive of the following list of Live Specialties we are manufacturing for 1913 and which are needed constantly in the motorcycle field.

Guaranteed Perfect Specialties

Simplex Spring Tandem Attachments; New Type A-K Luggage Carriers with Tandem Combination; New Type A-K Spring Luggage Carriers with Tandem Combination; A-K Pleasure Side Cars, Metal Bodies; A-K Commercial Side Vans, Bodies Optional; A-K Motorcycle Locks; A-K Fabric Pulley Legging; A-K Bicycle Luggage Carriers; A-K Manifold Air Valves; A-K Lamp Brackets; A-K Spring Cushions—used in connection with Combination Luggage Carriers; A-K Axle and Stand Extensions; A-K Axle and Special Nuts.

A-K Rain Proof Riding Outfits in Containers with Brackets. Container about size of Prest-O-Lite tank. Also used to advantage for carrying Tools or Extra Tubes, etc.

ANGSTEN-KOCH COMPANY

Incorporated

Makers of Good Specialties

00 Englewood Ave. CHICAGO

Frame Parts Rims Pulley Rims Mud Guards

As pioneers in the production of these articles we have acquired a reputation for high quality that becomes an asset to all who use our products.

Our frame parts are made from individual blue prints only and we use in their construction only the finest quality of

"Standard Steel Tubing"

THE LIGHTEST, STRONGEST, SMOOTHEST STEEL TUBING MADE

THE STANDARD WELDING COMPANY

CLEVELAND, O.

OFFICES IN

New York Chicago Detroit

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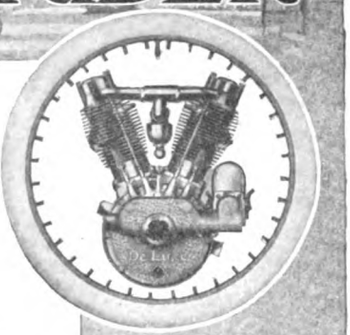
MR. MOTORCYCLE RIDER:



The joy of riding is enhanced when you ride a DE LUXE Motor equipped motorcycle.

Because there are four notable features of DE LUXE Motors:

SILENT CLEAN
FAST POWERFUL

SO SILENT—that you almost forget that you have a motor running under you. It is like riding in a Pullman.

SO FAST—that you can pull away in an instant from any of your companions, and stay ahead of them.

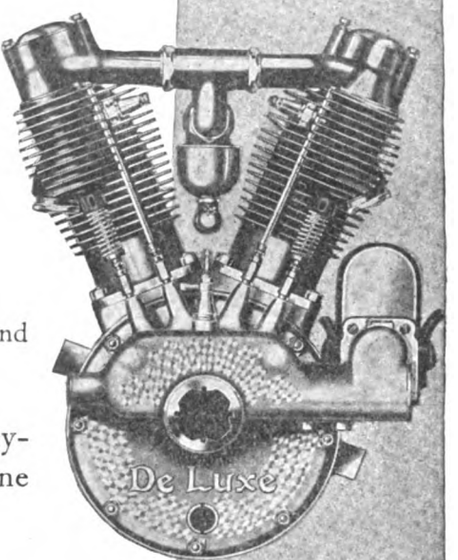
SO CLEAN—that when you return from a run, your motor may be covered with gray dust, but will not look as if it had not been cleaned for a month.

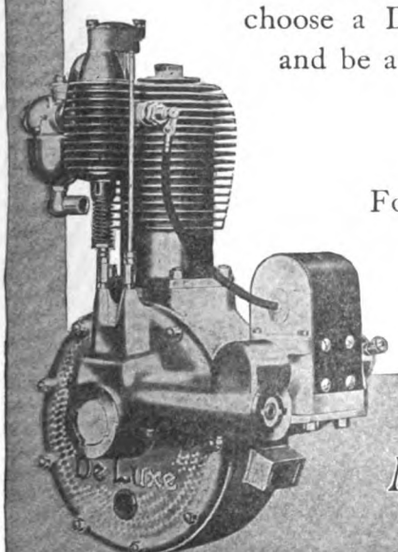
SO POWERFUL—that you can climb the steepest hills and pull through the deepest sand, where others walk.

DE LUXE Motors have done more than anything else to elevate motorcycling to the high plane where no apology is necessary for it.

You cannot afford to be without these advantages, so choose a DE LUXE Motor equipped motorcycle and be a year ahead of the others.

De Luxe Motors
The Heart of the Motorcycle





DE LUXE MOTORS
For Motorcycles, Tri-Cars, Cycle-Cars

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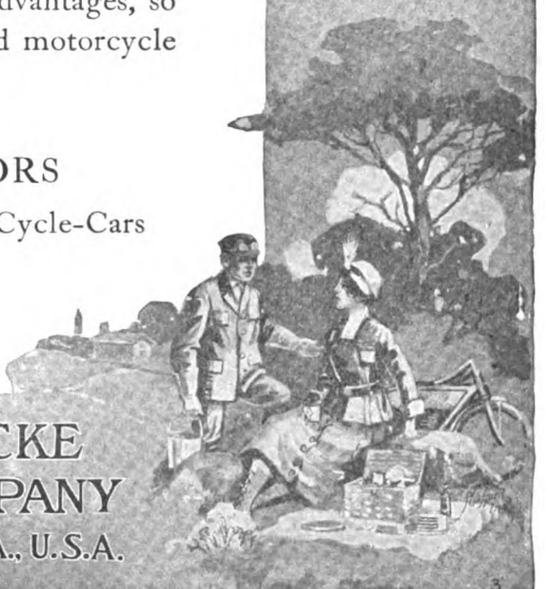

THE F. W. SPACKE
MACHINE COMPANY
INDIANAPOLIS, INDIANA., U.S.A.

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SPLITDORF

"Always There"

"YOU should worry" if your motorcycle is not equipped with SPLITDORF ignition.

The new SPLITDORF magnetos are the "one best bet" in the ignition field—they have been designed, and are being manufactured for the constant, hard usage of racer and road-plugger alike.

In appearance **you must not mistake them**—they're about as attractive as it's possible to make a mechanical contrivance.

In performance—the real test, after all—**you can't mistake them.** SPLITDORF MAGNETOS just make you master of the ignition situation under any call or stress of race or travel.

A sure, rich spark at top speed, or **as slowly as you can pedal the machine**—certain and always there when you want it—such is the SPLITDORF MAGNETO—the magneto you can always rely upon.

It is YOUR worry if you don't hitch on to the SPLITDORF tandem and demand a SPLITDORF MAGNETO with your standard, reliable SPLITDORF PLUGS.

"New ignition for old" is a special exchange proposition of great interest to every owner of a gasoline motor that is not equipped with SPLITDORF up-to-the-minute ignition. Save time and money and write or call for particulars today.

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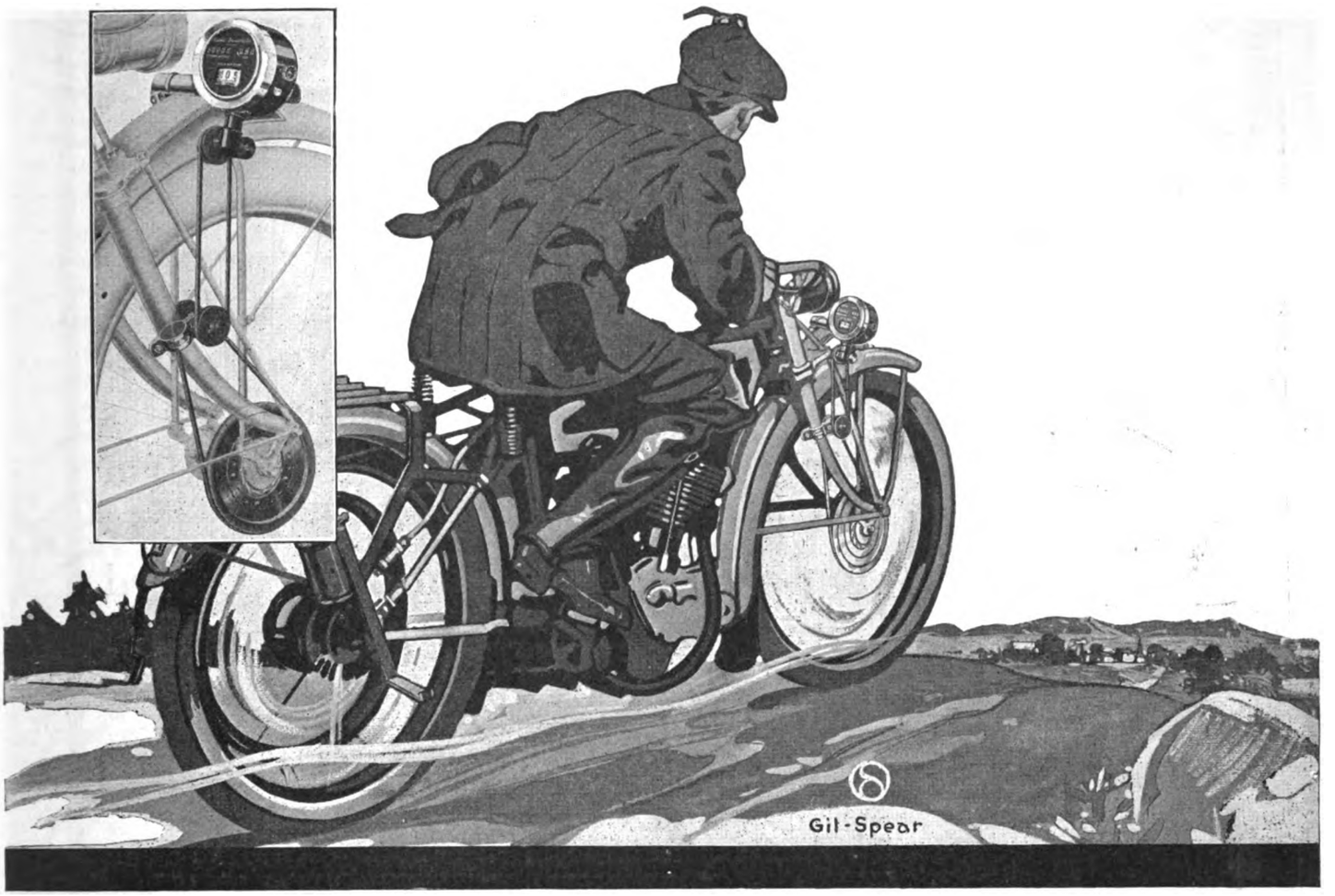

The Stewart

The only practical Motorcycle Speedometer made

The new two-belt front wheel drive of the Stewart is the only safe and practical motorcycle drive made. The instrument is mounted on the front extension spring or mud-guard. It cannot work loose. The steel and fibre pulleys cannot be thrown out of alignment. The coiled steel piano wire belts automatically adjust themselves to every vibration and road inequality. Unlike the impractical shaft drive, there are no gears to get out of mesh, nothing to become disconnected and tangle in the wheels.

$12
Complete

The Stewart is the only motorcycle speedometer made in which the shortcomings of flexible shaft drive have been eliminated. The new two-belt front wheel drive is simple, efficient, practical *and trouble-proof.* With this drive you are freed from the hardship and annoyances of broken links, inner coil friction, stripped gears, loose clamps, false mileage, noisy pinions and all the other difficulties encountered in the use of flexible shafting.

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United States Tires

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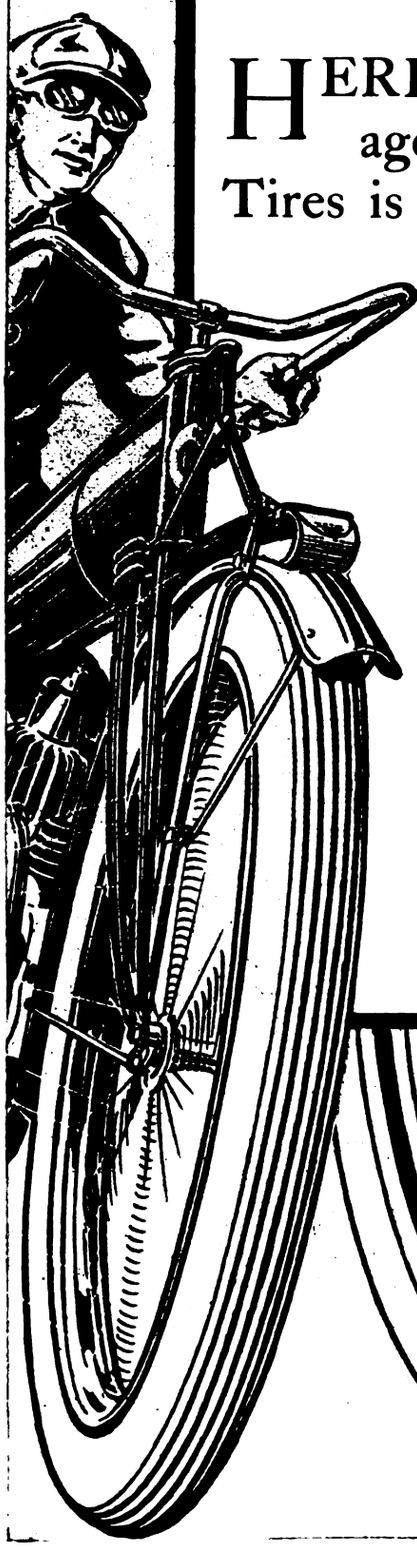

HERE is the reason: The average mileage yielded today by United States Tires is from 25 to 50 per cent greater than that given by any make of tires previous to the formation of the United States Tire Company two years ago.

Our own records prove this.

Every unprejudiced dealer and user in the country will admit it.

This radical increase in tire mileage comes as the logical result of combining into one tire all the best points of two famous makes.

BUY THEM THIS SEASON

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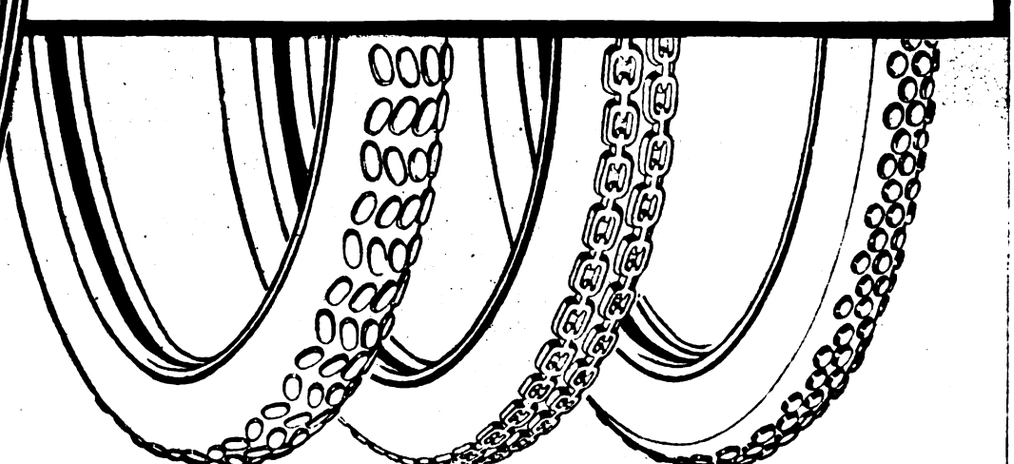
NEW YORK



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MOTORCYCLE ILLUSTRATED

51 CHAMBERS STREET NEW YORK CITY | THURSDAY, MAY 29, 1913 | TEN CENTS A COPY ONE DOLLAR A YEAR

Seattle Club Outlines a Plan for Consolidation

Pursuant to Recent Resolutions Favoring Merging of W. F. M. With F. A. M. Lively Northwest Organization Suggests Basis of Settlement in Detail—Director Sauer Resigns to Permit of Readjustment of F. A. M. Directorate.

REAL progress towards a settlement of the differences between the F. A. M. and the W. F. M. was made when, at a recent meeting, the Seattle Motorcycle Club adopted resolutions favoring a consolidation of the two organizations and stating the conditions under which, in the opinion of its members, the Seattle club favors the bringing about of this consolidation. Since his return from the Pacific Coast, Chairman Sauer, of the F. A. M.'s National Committee on Legal Action, has been in constant touch with various W. F. M. officials, to the end of effecting a solution of the problem along the lines he suggested at meetings which he addressed at Los Angeles, Bakersfield, San Jose, Portland, Tacoma and Seattle. As a result, the Seattle club has gone on record as favoring a consolidation provided, however, the F. A. M. can see its way clear to accept certain terms.

According to Chairman Sauer, the resolutions adopted by the Seattle club are in no way unreasonable, and he believes that it is only a matter of arranging the necessary details assuming, of course, that the W. F. M. membership in its entirety is disposed to take the same stand as have the boys in the Pacific Northwest. As Tacoma has returned to the F. A. M. fold and as at the meeting which Mr. Sauer addressed in Portland the vote of those present was unanimously in favor of the national organization, it would seem that the passage of the resolutions printed below will serve to clear the situation materially so that, in all probability, the W. F. M. will be represented at the F. A. M. Convention in Denver.

The resolutions adopted by the Seattle club are in full as follows:

"WHEREAS, The Seattle Motorcycle Club, as an affiliated club of the Western Federation of Motorcyclists, believe that a consolidation between the W. F. M. and the F. A. M. will result in an organization of greater strength and of more actual benefit to riders in general and the members of the respective federations in particular, and that the adoption of measures along the line set forth below will result in an increased membership and command the favorable attention of motorcyclists throughout the United States, and

"WHEREAS, During the recent visit of a representative of the F. A. M., the matter of consolidation was brought up by said representative, who was desirous of bringing about an agreement between the respective federations that would be fair and mutually advantageous; Now, Therefore,

"BE IT RESOLVED by the Seattle Motorcycle Club, that we favor a consolidation between the W. F. M. and the F. A. M. upon the following terms and conditions:

"That all moneys collected by the W. F. M. as dues shall remain in the West to form a nucleus for the State Treasuries as hereafter described.

"That all members of the W. F. M., upon acceptance of these resolutions by the F. A. M., shall become members of the latter body, that they shall be issued membership cards to expire one year from date on which they joined the W. F. M.

"That all F. A. M. members that were also members of the W. F. M. and who, for taking part in contests held under the W. F. M. sanction, were suspended from the F. A. M., be reinstated.

"That the F. A. M. so amend their constitution and by-laws as to provide for the United States being divided into seven or more districts. For instance, we favor Washington, Oregon, Idaho and Montana as the Northwest District. Other districts to be created to suit the members in the respective localities.

"That each district have a vice-president, such official to be elected by a direct vote of the members of his district.

"That each vice-president be a member of the National Board of Directors. His voting power to depend upon the number of members in his district. He to cast one vote for every fifty members or part thereof in his district.

"That the National Board of Directors elect the National Officers.

"That each state have an official known as the 'Secretary-Treasurer' who is to be the commissioner or organizer of such state, and also two directors. The Secretary-Treasurer is to be Chairman of the State Board and have a vote in same. All of the officials mentioned in this paragraph to be elected by direct vote of the members of their state.

"That the Referees be appointed by the State Board of the state in which they act.

"That the members shall have the power to recall any state or district officer who in their opinion is unworthy of holding office.

"That the National Board shall have the power to recall any national official, the procedure to be determined by the National Board.

"That in order to hold a state or district recall election it is necessary that a petition be signed by 20 per cent. of the state or district membership (as the case may be) and this petition on being filed with the district Vice-President shall be deemed sufficient for such election, in case of recall of state officials. In case of the recall of district officials such petition is to be filed with the National Secretary.

"That in no case can an official be put up for recall for more than once in a term.

"That 30 per cent. of the dues collected remain in the state in which the applicant joins and revert to the State Treasurer.

"That the moneys in the State Treasury be used to increase state membership, promote contests, provide for entertainment in district conventions and can be used as an emergency legal action fund, but when used as such must be reimbursed out of the National Legal Action Fund.

"That checks drawn from state fund for state expenditures shall be countersigned by a state director.

"That there shall be a Racing Men's Fund for professional and amateur riders who are injured while racing under Federation sanction. This fund to be created out of moneys received for race sanctions, the amount or per cent. to be determined by the National Board."

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"That there shall be a National Legal Action Fund with a reserve of not less than $1,000. Should this fund be diminished below $1,000, it is to be reimbursed out of the general fund. The ways and means to be decided by the National Board.

In acknowledgment of the above resolutions, Director Sauer wrote the Seattle club, through Mr. J. F. Gorman, National W. F. M. Organizer, the following letter:

"I enclose herewith a copy of the letter which I am today forwarding to President Patterson. You will note my intention to introduce amendments to our constitution and by-laws providing for an apportionment of the F. A. M. directors so that there will be two from the Pacific Coast. This will give the Pacific Coast more representation than it is really entitled to in proportion to its membership, but I am sure that I shall have no difficulty in having these amendments adopted. It is my idea to have one director represent that section of the country including Washington, Oregon, Montana, and two or three other northwestern states, and the other director represent California, Utah, New Mexico, and possibly Texas.

"You will also note that, although my term as a director would not expire until August, 1914, I am tendering my resignation so as to give the Pacific Coast boys an opportunity to elect two directors of their own. This will be possible in view of my resignation and the fact that the term of Director Collins expires this summer.

"Regarding the resolutions adopted by the Seattle club, I am of the opinion that we can easily get together on all these propositions. Resolutions Nos. 2, 3, 4, 8, 10, 11, 12, 13, 17 and 18, are all, I am sure, entirely satisfactory.

"In regard to resolutions 5 and 6, it is my opinion that an extra vice-president would be unnecessary, as each director, elected by a certain district, would act as vice-president for that district.

"In regard to resolution 7, I think it would be an excellent idea to have the directors elect the national officials, although it seems to me that this would constitute a concentration of power against which the average member might object. I think it would be much better to have the national officials elected by convention consisting of one delegate from each state and that each delegate have a right to vote whether present at or absent from the convention.

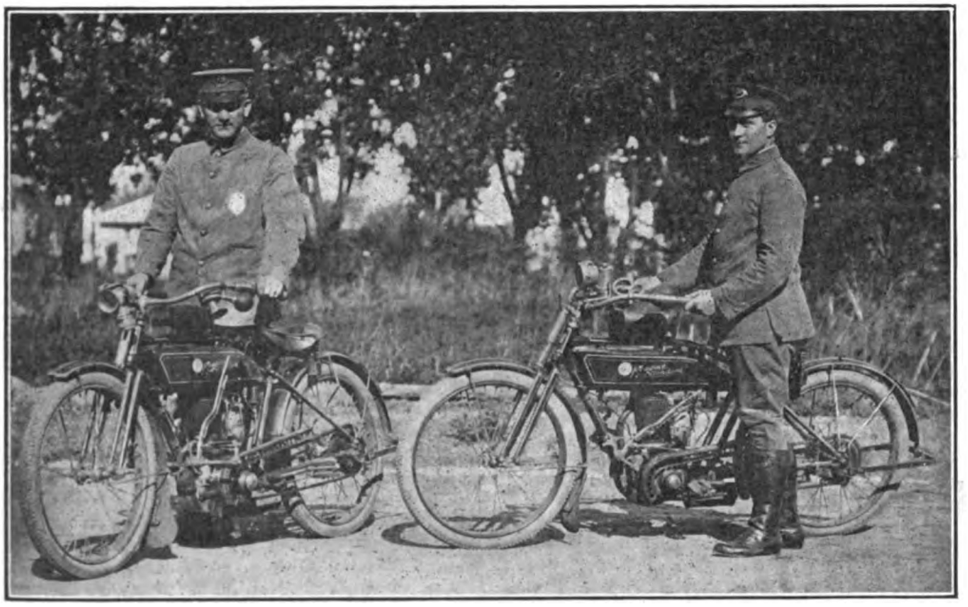
"In regard to resolution 9, I would suggest that the appointment of referees be made by the Chairman of the Competition Committee upon recommendation of or approval by the proposed State Board.

"In regard to resolution 14, while I would not favor a retention of thirty per cent. of the membership fees in *all* of the states, it is probable that this could be arranged for the states west of the Rocky Mountains, owing to their distance from F. A. M. headquarters. The great objection to splitting up the national fund is the fact that there would be duplications of expenditures. We have already had that experience in several states. For example, you state in resolution 15 that the monies in the state treasury will be used to increase state membership. In a good many cases the states would be duplicating the work of the national membership committee. On the other hand, there should be a state fund for emergencies, for convention expenses, and so on. It would be necessary to divide up the national treasury to do this. Why not have it so arranged that each state commissioner, upon requisition approved by the director in his district, would have the right to draw upon the national fund up to thirty per cent. of the membership receipts in his state? The result will be the same without the necessity of breaking up the national treasury into many small parts.

"I am sure that I represent the sentiment of our president and our other directors when I assure you that we are desirous of ensuring to all our members, in all parts of the country, equal representation and equal benefits. If your convention passes favorably upon these resolutions, it would be well to have your organization represented at the F. A. M. convention by one or more men empowered to arrange all details of the consolidation."

The Seattle club's resolutions, taken in conjunction with the opinions expressed by the F. A. M. director, disclose the fact that there is no important obstacle in the way of harmonizing the two elements. The Patterson letter referred to in Mr. Sauer's communication to the Seattle club, gives notice of his intention to introduce amendments to the F. A. M. con-

ONE OF the most enjoyable outings held by the Washington (D. C.) M. C. of late was to Savage, Md., 23 miles from the National Capital. The trip was made over the Baltimore boulevard. The club members were accompanied by their lady friends and were chaperoned by Mrs. John Blumer. On arriving at Savage the riders disposed of a luncheon and played games for a time before taking up the homeward trip. Other outings are being planned to Chapels Point, Middle River and Chatolanee Springs for the near future.



MOTORCYCLE officers are becoming quite common in the large cities these days, but it is safe to say that no motor-mounted bluecoats assume greater responsibilities than the two appearing in the accompanying photograph. These officers are attached to the White House squad in Washington, D. C., and it is their duty to accompany President Wilson on all his automobile trips. Formerly they used 4 h. Reading-Standards, but they are now equipped with speedy twins. Six Reading-Standard machines are in use by the Washington police department, four being 1912 models and two of the 1913 output.

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stitution and by-laws so as to bring about a distribution of the directors so that each portion of the country will always be fairly represented on the board. Mr. Sauer also tenders his resignation as a director, effective the first of August of this year, although his term would not expire until August, 1914. His reason for resigning is to afford coast members an opportunity to elect the two directors to which they will be entitled if the amendments are adopted by the F. A. M. National Assembly. Mr. Sauer's letter to President Patterson is as follows:

"When on the Pacific Coast, I promised to introduce an amendment to our constitution and by-laws, to provide for a territorial distribution of the F. A. M. Directorate. I am writing this to give formal notice of my intention to introduce such an amendment to provide, in substance, that the Board of Directors shall consist of nine members, including the president, the preceding ex-president, and seven other directors, to respectively represent the following parts of the United States: One for the Pacific Northwest, one for the Pacific Southwest, one for the Rocky Mountain-Mississippi River district, one for the Middle West, one for the South, one for the Atlantic district and one for New England, these seven directors to be elected by the districts which they will represent, said directors to be clothed with authority to O. K. the expenditures up to a certain percentage of the F. A. M. membership receipts in each state.

"As, under the new arrangement, the Atlantic district will be entitled to only one director and as there are now two directors living in New York City, I wish this to be considered as my resignation, to be effective immediately after the Denver Convention. My term of office as director does not expire until August, 1914, but I wish to resign a year in advance of that date in order to give our Pacific Coast members an opportunity to elect a director under the proposed reapportionment."

Empire State F. A. M. Convention for Elmira

First Assembly of New York Motorcyclists Will Be Held July 4-6 and Fine Program Is in Hand—State Tours Are Arousing Much Interest—Fine Piano Will Be Offered for Membership Campaign.

STATE COMMISSIONER J. A. HALL, of New York, has just announced that the New York State Convention of the F. A. M. will be held in Elmira the fourth, fifth and sixth of July. Arrangements are under way for tours from different parts of the state, these tours to be so planned as to provide for the arrival of delegates and other riders in Elmira during the afternoon of the Fourth of July.

Liberal preparations are being made by the Elmira club, under the auspices of which the convention will be held. A fund of $1,500 has been raised, and an attractive program of meetings, entertainment, and races, is now in the hands of the state commissioner for his approval. Mr. Hall has indicated a desire to leave the matter of arrangements entirely to the Elmira club officials, being satisfied that they will make a big success of their plans.

The Elmira club has written to all the other clubs in the state, and the indications are that the attendance will be large. Buffalo, Syracuse, Rochester, and other cities in the western and middle sections of the state are sure to send big delegations. Mr. Hall is also anxious to have the eastern portion of the state well represented, and wishes to hear from all who are desirous of coming, either by machine or train. An endeavor will be made to arrange for a special car or cars leaving New York Thursday night and arriving in Elmira Friday morning, the Fourth of July. Those who wish to go to the Convention City by wheel will have to leave New York early Thursday morning, stopping over night about two-thirds of the way, and reaching their destination about noon Friday, the day of the opening of the convention.

The business of the convention will be to elect a State Commissioner, recommend a State Referee, adopt a State Constitution and By-laws, and arrange for the award of a Melodigrand player-piano which has been placed at the disposal of State Commissioner Hall by Henry & S. G. Linderman, Fifth avenue and One Hundred and Forty-second street, New York City. This magnificent instrument was obtained through the efforts of the New York State Commissioner with a view to having it awarded in connection with an F. A. M. membership contest in New York State. In all probability, the contest will be opened about the first of July and continue until the first of the year. Mr. Hall wishes the convention to decide upon the conditions under which the prize should be awarded. This piano is far and away the handsomest and most valuable trophy ever offered by the Federation of American Motorcyclists, and it goes without saying that the enterprise of the New York State Commissioner will result in the keenest kind of competition and a big increase in F. A. M. membership in the Empire State.

It is most important that those who intend to tour or go by train to Elmira from any part of the Hudson River district, between New York City and Albany, should send in their names and addresses at once to Commissioner Hall, whose address is 322 East Thirty-second street, Brooklyn, N. Y.

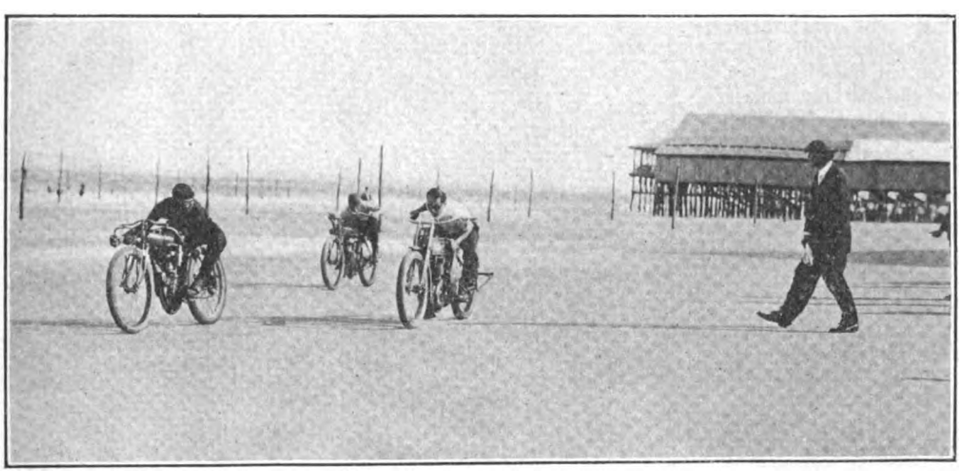
Commissioner Hall and a committee will strive to obtain special railroad rates from New York and Buffalo to the scene of the assembly for the benefit of those who may be unable to join the state tours.

Commissioner Hall makes a general request that clubs throughout the state refrain from holding race meets or long runs just prior to the convention dates or on the days set aside for the assembly, as it is the desire to concentrate interest on the state program. The Elmira boosters have already guaranteed an entertainment fund of $1,500 and outlined a tentative program, including races, a trip through Watkins Glen, a run to Rorick Glen Park, a smoker and a big banquet.

The state commissioner has also launched a publicity campaign and is seeking the cooperation of clubs, dealers and individual riders throughout his territory. He requests that local commissioners see to it that notices relative to the convention appear in the newspapers in their respective cities and towns, and that clippings of the announcements be forwarded to the commissioner at his home address.

EXPLAINING CLUB POLICY

FRANK S. LONG, chairman of the legal action committee of the National Capital M. C., of Washington, D. C., is making a trip to New York and Philadelphia, and is stopping at many of the towns en route. The trip is being made in the interests of the club's legal action committee, to which Mr. Long has been devoting a good deal of time of late. He has sent out appeals to many manufacturers and clubs in the territory surrounding the National Capital and is now following up his appeals with personal visits, his object being to explain fully the purposes of the club's legal fight.



SAVANNAH RACES ON BEACH

BEFORE an enthusiastic crowd of more than 1,500 people, Martin Schroeder, riding a white Thor "7", won the five-mile champion amateur event of the Savannah (Ga.) M. C., at Tybee, on May 22. Frank Laird, Excelsior, was second; Dennis Downing, Indian, third; O. A. Meyer, Excelsior, fourth, and J. S. Cafiero, fifth. In the five-mile race for singles, L. R. Buckner, took first place against a field of ten. He was fully a half mile in lead with W. C. Everett, second, and Z. Kelly, third.

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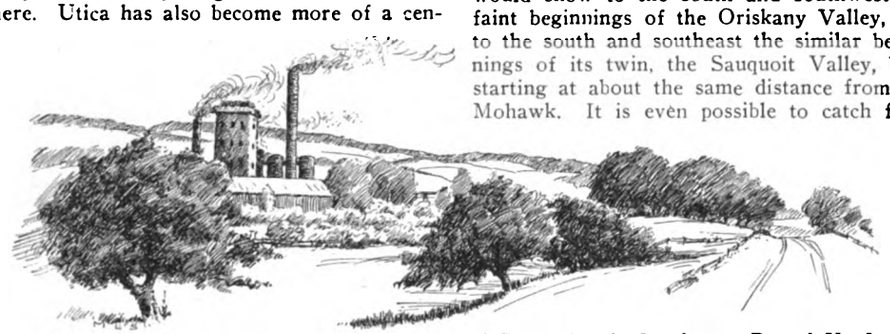
SCOUTING in the ORISKANY VALLEY

NOMAD

THE motorcycle tourist traveling east or west through Central New York State finds the city of Utica a convenient and usually a very welcome over-night stop, especially since the opening of a fine new hotel there. Utica has also become more of a center for north-and-south trips, especially as a half-way point between Scranton, Binghamton, the St. Lawrence and Canada; but, of course, the great stream of travel is over the trunk-line highway from Albany to Buffalo, or vice versa. It is principally to tourists going over this great central route that these paragraphs are meant to appeal.



A Glimpse of Franklin Furnace—Like a Bit of Pennsylvania Landscape Round Up Into New York State. There are Many Such Vistas in the Oriskany District.

We had come on in the afternoon from Albany to Utica—95 miles or so, over roads much better than on our previous ride two years ago; and might have gone through to Syracuse, except for the deepening shadows. In the course of the evening we met some people who knew some friends of ours; they suggested that we use up another full day, instead of two hours or so, in finishing the trip to Syracuse, and spend the morning making a little detour down the Oriskany Valley. The idea seemed worth while, and mentally calculating the time necessary for a round trip of 50-odd miles, with some local sightseeing thrown in, we asked a few questions about roads and directions.

Early the next morning found us on Genesee street, the principal business thoroughfare of the city, headed south. The trolley is followed through Oneida Square, over the West Shore and D. L. & W. railroads and across Sauquoit Creek into the suburban village of New Hartford; this is one of the best-paved exits for any city of the second-class in the state. On the left, just south of a large apartment house, is the home of the late Vice-President J. S. Sherman, not near as pretentious as some of its neighbors. The pavement is excellent all the way out, and a pleasing feature is that the lawns and yards of the many fine homes become more and more spacious as the city is left behind.

A DISTRICT OF PLEASING VIEWS.

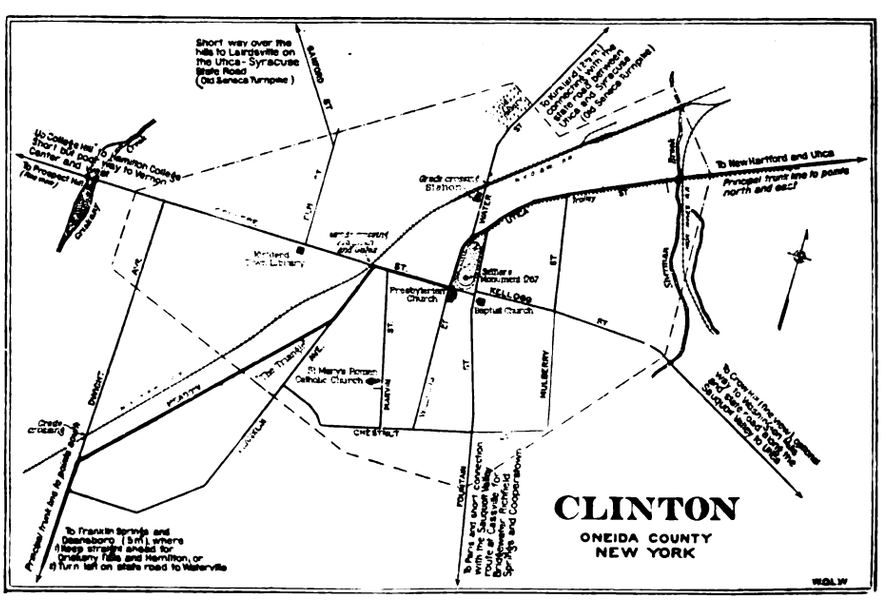
If it were possible to take a balloon view of the surrounding country from the front of the brick Post Office in New Hartford, it would show to the south and southwest the faint beginnings of the Oriskany Valley, and to the south and southeast the similar beginnings of its twin, the Sauquoit Valley, both starting at about the same distance from the Mohawk. It is even possible to catch from the moving motorcycle an outline of Washington Mills, the first town on the way down the other valley, through which road travel passes en route to Richfield Springs, Cooperstown, Oneonta and the Catskills. Genesee street now makes its first bend to the right at the large brick school, the brick pavement leading at once into the fine new State road.

We followed the double-track trolleys past the Golf Club, and a short distance beyond crossed the N. Y. O. & W. R. R. at grade; from now on this railroad and the highway are more or less together for several miles. Immediately beyond the crossing we turned abruptly left with the macadam, leaving the old direct road over the hill, which was abandoned by the State highway engineers, and is now used only by a few farmers. Immediately the peaceful valley of the Oriskany opens up, and the view from any point of vantage on the road is surprisingly distinct and fine.

If you look back from a favorable spot, the Mohawk Valley—of which you see nothing while in Utica or New Hartford, on account of their being "shut in"—shows clearly its northern outline, and you have a mere suggestion of where the Oriskany joins it, just east of the village of Oriskany on the local route from Utica to Rome, past the famous battlefield. The valley and the town are both named from Oriskany Creek, a small stream that rises among the hills of Madison County, flowing through a number of villages in Oneida County and into the Mohawk River a few miles west of Utica.

GOOD ROADS AND QUAINT TOWNS.

Originally the name was Oriska, the spelling found on some of the early maps, gradually evolved into the more mellow "Oriskany." It was but natural that the important battle fought in 1777 just west of the creek and the old village should have been given the same name, and later the monument also. On this trip you do not actually come upon



Map of Different Routes Through Clinton, N. Y., the Largest Village in the Oriskany Valley and Noted for the Attractive Surroundings.

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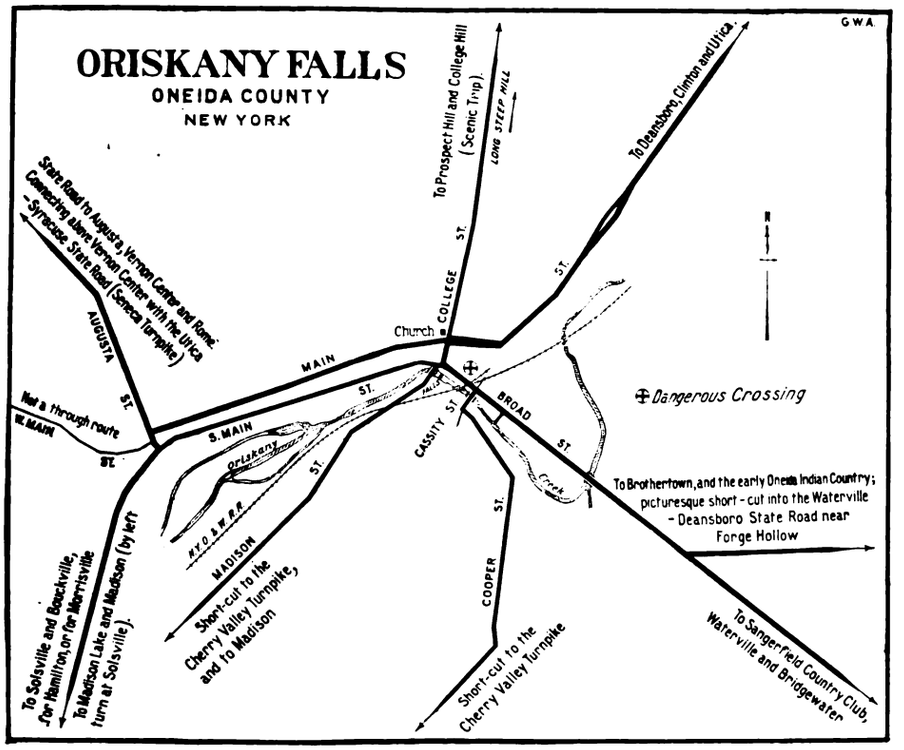


The Interesting Town of Oriskany Falls, near Southern End of Oriskany Valley, in the Old Oneida Indian Country. A Section Full of Historical Associations.

the creek until a mile or so beyond Franklin Springs; but the valley is yours immediately after leaving New Hartford.

This is a region of many rounded hills, usually cultivated to the very tops, of well-kept farms, substantial buildings, good lawns and gardens—essentially a home section. Along the fine, long stretch of State Road, many Utica business men live, going to and returning from the city by half-hourly electric cars, automobiles and motorcycles. Commercial travelers covering the central New York territory, and numerous lovers of the country with interests elsewhere, have their homes in this section, and make trips into the larger centers as occasion requires.

Across the valley to the southwest the several buildings comprising Hamilton College are distinctly visible five or six miles away, the old-fashioned chapel (identified by its spire) being particularly well situated for the free play of sunlight and shadow. Other sightly buildings are clustered about the top of College Hill, one of the finest educational sites in the United States, a mile or so west of Clinton. As one comes into the village itself, the view of the hill and college is shut off until the open roads beyond restore it for a time.

Clinton is a quiet little village, whose chief attractions are good roads, perfect signboards (even on the unimportant streets), pleasant rural surroundings and fine homes—for aside from an iron mine operated to supply a paint mill, and a small knitting factory, there are no industrial establishments within its limits. Additional importance has recently been given to it by the completion of the State Road from Utica to Waterville, which sends this way a great deal of the north-and-south travel that formerly went from Utica down the Sauquoit Valley toward Norwich and Binghamton.

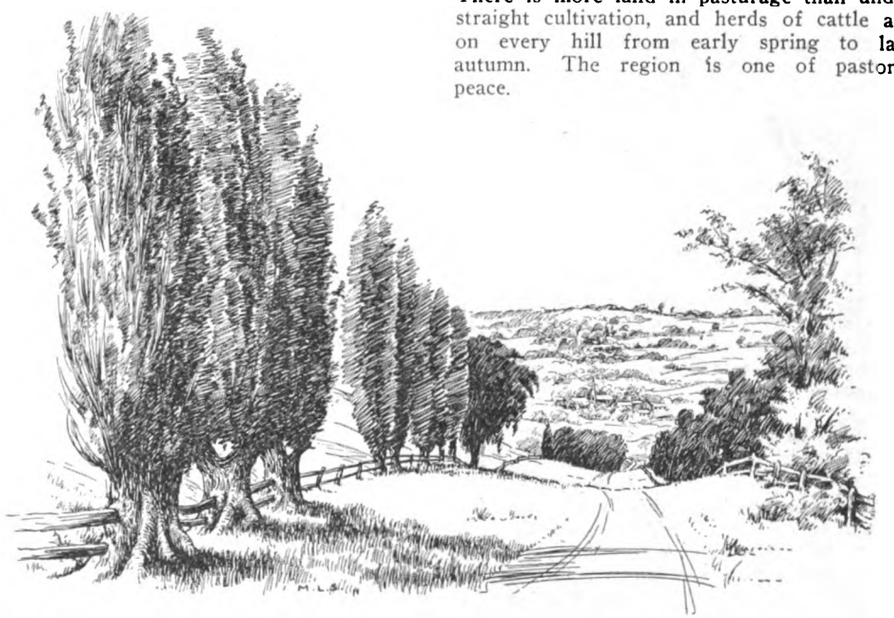
Besides being a college town, Clinton has had as many as six preparatory schools and seminaries at one time; but all these are now gone, including one on College street, said to have been the first schoolhouse erected west of the Hudson River, and where Grover Cleveland attended for a time in his early youth. Elihu Root was born on College Hill, in an old home then occupied by his father, a professor of mathematics at Hamilton, and now—greatly enlarged, both buildings and grounds—the summer home of the Senator and ex-Secretary of War, who usually spends several weeks there each year. Clinton Scollard, one of our younger American poets, has a fine but unpretentious home on College street, not far from the little park in the center of the town; Mr. Scollard was formerly a professor in the college, but gave it up a few years ago to devote himself entirely to literature.

Riding up Utica street to the head of the village park, one sees the last of the trolley and turns right on College street, then left—just before the railroad—into the Franklin Springs road. These turns are all well defined, as one is following the heavily traveled State Road throughout, coming into the little settlement of Franklin Springs, formerly Franklin Iron Works, so named from the blast furnace, the only industry the place ever had. After several years of idleness and decay the furnace was abandoned; so the name became inapt, and a change was made to Franklin Springs, on account of several fine mineral springs meanwhile discovered and opened in the near vicinity. There are rumors that a fine hotel may be built here and an effort made to develop a resort like Cambridge Springs, Pa.

A short distance beyond Franklin Springs Village, the State Road turns abruptly right, passing between the old iron works (on the right) and an enormous slag pile (on the left); the latter was once a waste product, but now it is being drawn upon for making roads, drives and walks in the villages and the country for miles around. The old iron plant was a good one in its day, and along the short right-hand road just before coming to the furnace may be seen a group of "company houses" where the workmen and their families lived; the red paint has been nearly worn off the houses, and the sight of many children at play, easily remembered by the writer, has probably gone for all time.

FIRST CROSSING OF THE ORISKANY.

Just beyond the furnace is our first crossing of the Oriskany on this trip, and what was once the feeder for the iron works is now the village "swimming hole." The State Road now shoots across the flats and over the railroad, turning left just beyond onto the foothills road along the opposite side of the valley. One is now in the open country, devoted exclusively to fine farming, stock-raising and dairying; here and there is a cheese factory, creamery or condensed milk factory. There is more land in pasturage than under straight cultivation, and herds of cattle are on every hill from early spring to late autumn. The region is one of pastoral peace.



A View of Clinton Village from the Harding Road, near the Estate of Hon. Elihu Root.

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Straight on to Deansboro Village, the road mounts still higher, and there is a particularly fine view across to the east side of the valley. At Deansboro the State Road turns left, cutting across through Forge Hollow to Waterville; this would be out of our way, except that it would be only a short detour to Forge Hollow and across to the little settlement of Hanover Green. It was to the Congregational Church at the latter place that the father of Robert G. Ingersoll ministered, and during his pastorate there, his son, the noted infidel, was born.

Whether or not the Forge Hollow-Hanover Green detour is made, one continues down the Oriskany Valley from Deansboro through a hop-growing country, the stacked poles in the fields looking from the distance like stacked bayonets outside a military camp. Farther up on the cultivated hillsides there is apt to be a cornfield, the ungathered corn stalks in round piles, like so many upturned bushel baskets left outdoors. Of trees in and about the valley there are maples, cedars and hemlocks in large numbers, the latter especially in some camel's-back ridges on the uneven ground.

APPROACHING ORISKANY FALLS.

The abandoned Chenango Canal is occasionally in sight all the way between New Hartford and Oriskany Falls. Its construction is best seen in the deep glen just south of Deansboro, where it is carried over a quarter mile of lowland by means of a high artificial bank on either side. The nearby locks are already dismantled for their stone, and this costly work of 60 years ago has gone to ruin in the memory of some who may possibly have seen it built—thus rapidly have the means of transportation changed within the recollection of living men. It is a region of small streams, one just north of Oriskany Falls trickling down a fall of some forty feet in less than a hundred yards, and dashing with some show of force into an underground passage to the other side of the road. It will often be noticed how much care is given to culverts and bridges hereabouts, without which some parts of this line would be overflowed many times during the rainy season.

A certain quaintness is over all, and there is a rural charm in this one respect at least rivalling the better-known Mohawk. There are old-fashioned cider mills, where, in autumn, the tourist may stop for a drink brewed before his own eyes from choice apples picked from the surrounding orchards. Every turn

A Bit of Prettily Shaded Road Alongside the Elihu Root Farm.

in the road brings a new picture of beauty, and there is no getting away from the fresh, vital atmosphere of the Oneida County hills. If there is anywhere a better example of contented country life, the writer scarcely knows where to look for it. Population and business progress little if any in most places, but except at the old Franklin Furnace there are no signs of decay; everything is bright and prosperous looking. Country like this has the essential elements of restful living. At one point the canal banks are spanned by an arch-frame wooden bridge, looking from a distance like the bowstring bridges of Japan. Its type was common in the old canal days, to enable the boats to go under, but this is the only one now in sight from the road.

Oriskany Falls, the turning point on the run, is plainly seen ahead. The road is narrower and poorer because the State highway has not been carried beyond Deansboro; it is "built up" in spots, but fairly good and easy riding in dry weather. Coming out upon an unexpected widening of the valley, you may hear the water fall over a dam, and soon enter the town, keeping on down to the bridge where the knitting mills are found.

ON A FINE STRETCH OF MACADAM.

This is the "Little Falls" of the Oriskany country. Here the north-and-south road so far followed divides, one branch going to Hamilton, Norwich, Binghamton and Pennsylvania points, and the other to Madison and nearby villages. The farthermost point in our detour from the Albany-Syracuse-Buffalo route has now been reached, and we begin to think of getting back into that main line again.

To do this it is not necessary to retrace a single step, for we found that one of the great road improvements in this section is a completed State macadam, almost direct as the crow flies, from Oriskany Falls to Rome, cutting across the Utica-Syracuse trunk-line, which provides a fine trip all the way from the lower end of the Oriskany Valley to Syracuse. At the point near the "falls" where there is a break in Main street, note "Augusta street," leading almost straight west; we took this, and at the outer edge of the town met and followed the unmistakable macadam through the small towns of Augusta and Vernon Center. After leaving Vernon Center, the traveler should look out for an important 4-corners that might otherwise be missed, as it is out in the open country; turn left and follow the well-known route past Oneida and Canastota into Syracuse.

We had taken one leaf from the Oriskany Valley for our touring book, and were more than satisfied with it. Before Syracuse was reached we had a plan already made to stop on the way back, if time and weather should permit, and make a similar detour down the neighboring valley of the Sauquoit. This we did, but the telling of it would make another story. Central New York has many of these fine runs, especially in the lake district, that the motorcyclist who travels only over main lines often knows very little about.

Short Grass Club Completes Tour Schedule

AS THE result of a conference between Secretary P. E. Zimmerman, of the Kansas Short Grass Club, and President B. J. Patterson, final arrangements for the big tour of the club to the Denver convention have been completed and are announced as follows:

Saturday, July 12, three divisions of the tour will leave Wichita, Emporia and Salina. They will arrive at Hutchinson on the twelfth at noon. At 7 a. m. Monday, the fifteenth, the tourists will leave Hutchinson over the Santa Fe Trail. Ten minute stops will be made at Nickerson, Sterling, Lyons, Chase and Ellinwood and dinner will be had at Great Bend. The next point on the route is Pawnee and the party is scheduled to reach Larned at 3 p. m.

Leaving Larned at 7 a. m. the following day ten minute stops will be made at Garfield, Kinsley, and Soldiers and Dodge City will be reached at noon, where they will remain for the rest of the day. On Wednesday, the sixteenth, the riders will leave Dodge City at 6 a. m. and a one hour stop will be made at Cimarron. Dinner will be had at Garden City at 11 a. m., and at 1:30 p. m. the party will proceed through Deerfield, Laklin and Syracuse to Holly, the night stop.

The start will be made from Holly at 6 a. m. on the seventeenth. Lamar and Fort Lyon are the principal towns to be passed and the night control will be at Las Animas. Leaving this point 7 a. m. Friday, the riders will pass through La Junta, Swink, Rocky Ford and to Fowler, where they will stop for dinner. Pueblo will be the night stop.

The party will leave Pueblo at 7 a. m., and after passing through Florence will arrive at Canon City by 11 a. m. Side trips will be made from this point until the next day at 1 p. m., when the riders will leave for Colorado Springs, where they are scheduled to arrive at 6 p. m. Monday, the twenty-first, will be spent in and about the Springs and at 7 a. m., on Tuesday, July 22, the start will be made for Denver, where the tourists will arrive at noon.

TOLEDO'S FIRST MEET

TOLEDO, O., May 26.—A large crowd attended the first race meet of the season at the fairgrounds track, Sunday, May 25. Creviston, the Clevelandite, and Harold Cole, of Toronto, starred in the open events, while William Bailey, on a Yale, took first honors in the stock machine races. Summaries:

Five-mile stock, Toledo club riders. Bailey, Yale, first; Evans, Indian, second, and Weitzman, Merkel, third. Time, 6:40⅘.

Five-mile open. Creviston, Thor; Cole, Thor, and Evans, Indian. Time, 6:20⅗.

Ten-mile open. Cole, Thor; Creviston, Thor, and Jones, Merkel. Time, 11:34.

Five-mile handicap. Bailey, Yale; Thomas, Thor, and Ganders, Indian. Time, 6:30.

Four-mile open. Cole, Thor; Creviston, Thor, and Ponti, Indian. Time 4:38⅗.

Twenty-five mile open. Cole, Thor; Huntsbery, Merkel, and Flath, Excelsior. Time, 27:54⅗.

MAY HOLD PARKWAY RACE

AT a meeting of the Riverside Motorcycle Club, 531 West One Hundred and Tenth street, New York City, held Thursday, May 1, the following officers were elected: A. R. Burchenall, president; D. R. Hobart, secretary-treasurer and S. B. Thorpe, road captain. The club proposes to hold a 40-mile race on the Motor Parkway on Sunday, June 8, machines of 61 cubic inches only being eligible. Should the weather prevent it on that date the event will be run off on the next clear Sunday.

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Five Hundred Riders Expected on Olio Tours

Schedules Covering Four Chief Trips to State Convention in June are Complete and Side Trips Are Now Receiving Attention—Election of State Officers Booked for the Opening Day.

WITH the business and entertainment programs practically complete for the first annual convention of the Ohio State F. A. M., enthusiasm has reached an unexpected pitch and from every viewpoint the outlook is satisfactory. The tours to Cleveland, the convention city, are booked for June 19-20, and the convention proper will be staged on the two succeeding days. The business meeting and election of state officers will be held on Saturday morning, June 21, at 9 o'clock, in the Hollenden Hotel.

Among the features of the two-day entertainment program arranged by the Cleveland Motorcycle Club are a moonlight sail on Lake Erie, swimming contests at Euclid Beach, races for the state championship at the Randall one-mile dirt track, race meets on the Luna Park Motordrome and a motorcycle parade through the city's park system. The board track meets will be held on Saturday and Sunday nights, and the committee in charge of arrangements for the speedfest is confident that new marks will be hung up for the saucer.

As has been previously stated the main tours to the convention city will start from Cincinnati, Marietta, Toledo and Youngstown, with side tours from many of the other cities and towns. These tours will end in Cleveland at the Hollenden Hotel, on Friday afternoon, June 20. It is expected that the four main divisions will arrive about 5 o'clock, and they will be at once lined up for a photograph.

Each touring division will be in charge of a tourmaster, who will appoint two aides to assist in the execution of his orders. The squads will be divided into companies with a captain and two lieutenants in charge of each. As soon as a rider announces his entry in a touring division he will be given a number. The tourmaster will be in full charge, and will ride at the head of his division. Each captain will be responsible for his individual squad, subject to the orders of the tourmaster. One lieutenant will ride at the head of his company with the captain, and the other will bring up the rear.

No rider will be permitted to pass the captain of his company, or the lieutenant who may be temporarily in charge. The captain of a company must not pass the lieutenant in charge of the rear of the squad preceding. Failure to comply with any of the regulations will result in disqualification for the offender and he will not be eligible for a medal.

The riding schedule for the tours will be 18 miles an hour, and the program for the Southwestern division follows:

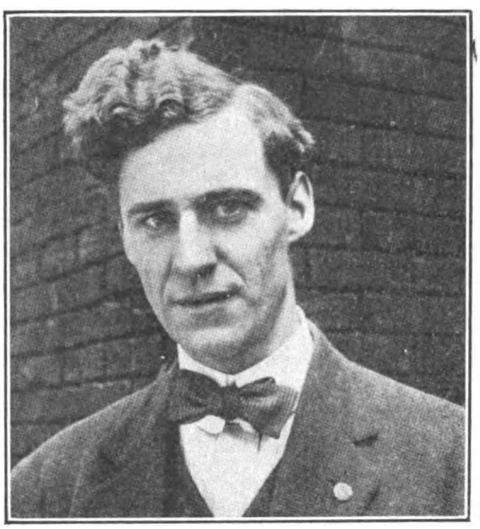
Leave Cincinnati Thursday, June 19, 7:30 a. m.; Hamilton, 8:57; Middletown, 9:40. Arrive Dayton, 11 a. m., noon control; leave Dayton 1 p. m.; Springfield, 2:23; arrive in Columbus, 4:50; night control. Leave Columbus, Friday, June 20, 6 a. m.; Delaware, 7:20; Marion, 8:27; Bucyrus, 9:34. Arrive in Norwalk, 12:04; noon control. Leave Norwalk 1:30 p. m.; Oberlin, 2:47; Elyria, 3:14. Arrive in Cleveland, Hollenden Hotel, 4:37 p. m.

The schedule for the Northwestern tour will be as follows:

Leave Toledo, June 20, 8 a. m.; Fremont, 10:19; Bellevue, 11:09. Arrive in Norwalk, 11:49; noon control. Leave Norwalk with Southwestern division on above schedule.

Riders on the Sidney and Portsmouth side tours will observe the following schedule:

Leave Sidney, Friday, June 20, 5:30 a. m.; Wapakoneta, 6:37; Lima, 7:20; Findley, 9:03; Fostoria, 9:50; Tiffin, 10:33; Bellevue, 11:46; Norwalk, 12:26. Leave Norwalk with Northwestern squad on their schedule.



R. S. McConnell, of Cleveland, a Hard Worker on the Convention Plans.

Leave Portsmouth at 12 noon; Waverly, 1:47; Chillicothe, 2:44; Circleville, 3:51. Arrive in Columbus, 5:28 p. m.; night control.

Schedule for Southwestern tour: Leave Marietta Thursday, June 19, 1 p. m.; McConnellsville, 2:53. Arrive in Zanesville, Friday, June 20, 7 a. m.; Coshocton, 8:37; New Philadelphia, 10:24; Canton, 12:04. Leave Canton 1:30 p. m.; Akron, 2:47. Arrive in Cleveland, Hollenden Hotel, 4:47 p. m.

Riders from the Northeastern district will leave Youngstown on Friday, June 20, at noon; Warren, 12:47; Painesville, 3:14. Arrive in Cleveland, Hollenden Hotel, 5:51 p. m. The boys from Ashtabula and vicinity will leave on Friday at 1:45 p. m. and join the Northeastern division at Painesville at 3:14 p. m.

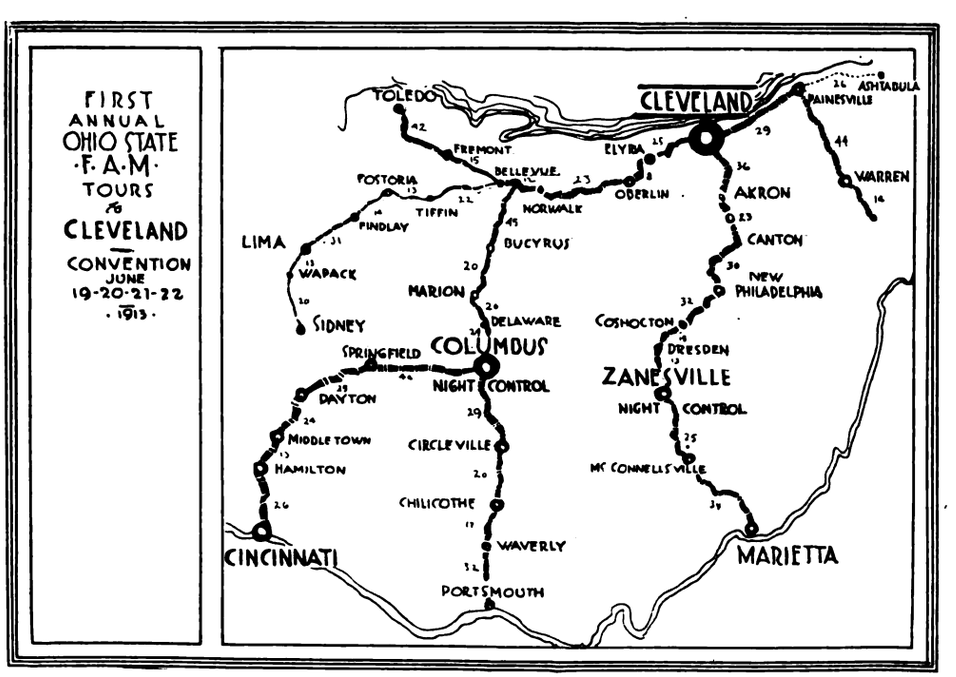
WARNING FROM CANADA

FROM President K. R. Spencer, of the Canadian Motorcyclists' Association, comes the following self-explanatory letter:

"On behalf of the Canadian Motorcyclists' Association, the writer begs to advise that this organization has suspended, for improper practices, the Toronto Motorcycle Club. They are endeavoring to form an outlaw organization to be called the Canadian Motorists' Association. This will enable them to use our lettering, namely, C. M. A. We will be pleased if this matter is given publicity so that American motorcyclists may know under what auspices they are riding when in Canada."

On receiving a copy of this letter Chairman Thornley, of the F. A. M. Competition Committee, issued a notice warning affiliated American riders against competing under the auspices of the newly launched Canadian body, in view of the fact that the latter is not officially recognized by the F. A. M.

AT the recent re-organization meeting of the Calgary (Canada) Motorcycle Club the following officers were elected: George Bain, president; John Barr, vice-president; C. Leslie Munroe, secretary-treasurer; F. W. Sanguine, captain, and R. S. Chisholm, lieutenant. The club has renewed activities with a greatly increased membership and a busy program is planned.



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TRAINING BOARD TRACK RACERS

ONE of the most interesting phases of board-track racing—a phase that did not attract serious attention until the opening of the present season, by the way—is the training of the young speedsters who aspire to spin the big bowls and perchance clip a record or two, if Fate (and their carbureters) befriend them. These lads come from all parts of the country, from city and village, from shop and mill; they are of all sizes and nationalities, and their knowledge of a racing motorcycle ranges from a little dirt-track experience to utter ignorance of the two-wheeled comet. It is obvious that with such material to choose from the motordrome managers can always find nervy riders, and it is equally certain that they must exercise care if they are to avoid trouble.

It is one thing to bestride a fast twin on a straightaway, or even on a board track in practice, and another thing altogether to jockey the machine through a field of riders and come down the stretch "wide-open"—but with the mount under perfect control. Such work as this requires steel nerves, tireless muscles and the ability to see, think and act in a flash.

TRYING OUT APPLICANTS.

Practically all the training of speedsters for the Middle-Western circuit of board tracks during the spring just past has been done at the St. Louis motordrome. Here the boys were given try-outs and those who qualified for track work were assigned to the teams which will make the circuit of the tracks throughout the summer. As soon as the weather permitted the big St. Louis bowl was cleaned and scrubbed and it was then ready for preliminary work. No less than 125 applications were received from riders who desired to enter the racing field, several coming from England and one from France, in addition to the scores received from all parts of the United States.

When the officials decided to open a training camp at the St. Louis track, Brownie Carslake, the well-known racer, was placed in charge, and it rested with him to retain the young speedsters or send them hiking back to the small town meets, according to the ability they displayed under tests. The first lesson involved a few trips around the bottom of the bowl to prove that the rider knew how to control his machine, and to accustom him to the first rise of the track banking. While undergoing this test the rider was required to close and open his throttle at about thirty-yard intervals to show that he knew how. Then came instructions relative to oiling, and the beginner was again sent around the bottom of the track with instructions to close and open his throttle and also give his motor a pump-load of oil.

WORKING UP ON THE TRACK.

All this time the rider was traveling below the first white line on the track (the St. Louis bowl has two white lines), and as he became confident of his ability to handle his mount, attend to the throttle and oil and maintain his balance on the steeply-banked track he was permitted to ride above the first white line and to approach the second line. Then for several days he was called upon to ride the center of the bowl and later to hold the white (pole) line. After convincing Carslake that he was perfectly at home at this stage the rider was permitted to go out with one other racer. His first ride with another machine on the track was taken in the daylight and was later repeated at night.

The next lesson provided for two other riders on the track, and several trials were made under these conditions, both during the day and at night. Then another speedster was added, and another, so that finally the new rider found himself spinning the big bowl in company with five others. After this he was given a series of lectures relative to the action to be taken in emergencies. All riders are instructed as to what course to pursue should the arc light be thrown out of service at night, or in the event of any accident on the track. These lessons are very thorough and touch upon every phase of the racing game that a rider is likely ever to encounter. If the trainer is still satisfied at this point that the speedster has good material in him he is given an opportunity to sign up for one of the league teams.

STRICT DISCIPLINE AT THE CAMP.

For the first try-outs the new rider was on the track only fifteen minutes in the day, as arrangements had to be made to accommodate the scores of beginners. A strict record was kept of each rider's performances. If he fell or mismanaged his machine he received a black mark and there was just that much less liklihood that he would be chosen as a team rider. If a beginner failed to report for practice he was compelled to give a satisfactory explanation or have his name scratched from the list.

On the whole the league officials and Manager J. H. Rush were well satisfied with the progress made in the training camp, and with the caliber of the racers developed for the various teams. Carslake was complimented upon his judicious handling of the material turned over to him, and the speedsters all admitted that they were given a square deal by the trainer. So the first board track training camp proved a success. Now the idea is taking root elsewhere. New riders are being tried out on the Brighton Beach Motordrome under the direction of Arthur Chapple, the veteran speedster, and it is stated that a strong squad of record-chasers will be developed from the forty or more applicants whose names were on the list at latest reports. Chapple has some training wrinkles of his own, but his system in general does not differ greatly from that used by Carslake at St. Louis.

FRISCO'S SPEEDY COP

E. M. SAXON, mounted officer No. 3 of San Francisco, who appears in the accompanying photograph on his Thor "7", has acquired the reputation of being one of the speediest riders

in the city. He has consequently become a terror to the speed law violators in Golden Gate Park, and his work in that district is proving most effective.

INGALL TRACK MEET

JOLIET, ILL., MAY 25.—The motorcycle races held at the Ingall speedway today were productive of much excitement and were well attended. Perry, the Excelsior rider, was the star of the day, while Gaudy, also riding an Excelsior, came in for second honors. Summaries:

Five-mile novice, single, stock.—Gaudy, Excelsior; Peterson, Indian, and Heintzelman, Indian. Time, 5:54⅘.

Five-mile novice, twin, stock.—Carlos, Excelsior; Hetland, Indian, and Kweiser, Excelsior. Time, 5:17⅘.

Ten-mile stripped twins, stock.—Allen, Indian; Perry, Excelsior, and Beck, Indian. Time, 9:35.

Ten-mile, dealers, stock.—Perry, Excelsior; Bonack, Excelsior, and Carbon, Excelsior. Time, 9:56.

Six-mile stripped singles, stock.—Gaudy. Excelsior; Peterson, Indian. Time, 7:12⅕.

Ten-mile stripped twins, stock.—Perry, Excelsior; Allen, Indian, and Cooley, Excelsior. Time, 9:35⅕.

Eight-mile stripped stock singles.—Gaudy, Excelsior; Peterson, Indian, and Heinzelman, Indian. Time 9:39⅕.

Ten-mile match.—R. Perry, Excelsior, 9:27⅘, and Beck, Indian, 9:34.

FROM THE WATCHFUL CHAIRMAN.

FOLLOWING the recent accident at the opening of the Tuileries Motordrome in Denver, Col., Chairman Thornley, of the F. A. M. Competition Committee, received a diagram of the track and the paragraph which follows is an extract from a letter written by the chairman to Referee A. L. Osborn, relative to the construction of the fence at the top of the banking:

"I note in the illustration of the track, which is a diagram, and not of necessity a true representation, that the wire netting seems to be on the outer side of the posts. I can hardly believe that you or anyone else would be so foolish as to allow the netting to be placed that way. In the first place, it would be easier to rip off in the direction of the spectators, and the bare posts on the inside are a frightful menace to riders. If this illustration is correct you will stop all racing on the Tuileries track until the condition is rectified."

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A SQUAD of well-known space annihilator snapped by the camera-man at the Cleveland motordrome. Across the circle from the upper left-hand corner: Frank Biggers, Albert Standen, Wiley Gibson and Leon W. Pitts. Pitts was fatally injured at the opening meet on the Riverview motordrome in Chicago. The rider who appears mounted in the upper right-hand corner is Ed. Harner, at present on the Chicago road team of the league circuit. Below, in street togs, appears Brownie Carslake, who opened the first training camp for riders, at the Luna Park bowl in Cleveland.

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Keeping Your Spring Forks in Working Trim

Regular Applications of a Suitable Lubricant Will Save Trouble and Repair Bills and Add to the Life of These Important Parts—Simple Methods of Replacing Spring Fork Bumpers.

By George M. Johnson

THE spring forks may not be the most important feature of a motorcycle, but they are important enough to deserve more care than they receive at the hands of many riders. Altogether too high a percentage of motorcycle owners neglect the forks absolutely until a pronounced squeak indicates a need of oil. Then an unnecessarily large amount of engine lubricant is squirted all over the offending part, with the general idea that some of it may work its way into the dry place and stop that disconcerting squeak. That is no way to oil the forks.

Most modern motorcycles are equipped with grease cups and spring oilers, so that it is a very simple matter to supply oil to all parts about the fork that are likely to need it. One should not defer his oiling until a squeak shows that oil is needed. About once in so many miles—a little observation will quickly determine how often—the grease cups should be twisted down a turn or two and light machine oil injected into the spring oilers. Don't use heavy engine oil, as that does not flow well, especially in cold weather, and the bearing surfaces might be dry with the spring oiler full of a too heavy lubricant.

CLEANLINESS AND OILING.

In oiling the forks, be careful not to neglect any part. Some of the bearing surfaces on new models, and all of them on old machines, will probably show nothing in the way of spring oilers. Such places must be oiled by squirting the fluid around on the outside, accompanied by a vigorous jouncing up and down of the fork, to work the juice in where it will do the most good. However, before oiling in this way, be very careful to clean off, by means of a paint brush and gasoline, all grit and road dust about the part to be oiled. If the forks are dusty, the oil will surely carry some of the grit down into the bearing, and then you have a very effective grinding mixture, for common road dust is really nothing but "rock flour," which, combined with oil, will grind to beat the band.

You have doubtless seen motorcycles whose forks showed a surprising amount of play, which it was well nigh impossible to get rid of. That play is due in nine cases out of ten to the cause just spoken of. Grit and dust worked down into the bearings when these were oiled, and no steel is hard or tough enough to resist the wear that is thus put upon it. A little thought and care on the part of the rider will prevent such a condition.

A very popular type of fork at present is the so-called cradle spring, with the rubber bumpers above and below to take up some of the rebound shock. These bumpers, especially the upper one, which acts as a roller, will wear out and must be replaced from time to time. Fitting a new upper bumper is something of a job, as the fork must be partly dismounted, and the replacing is likely to be hindered by the resistance of the leaf springs.

FITTING NEW BUMPERS.

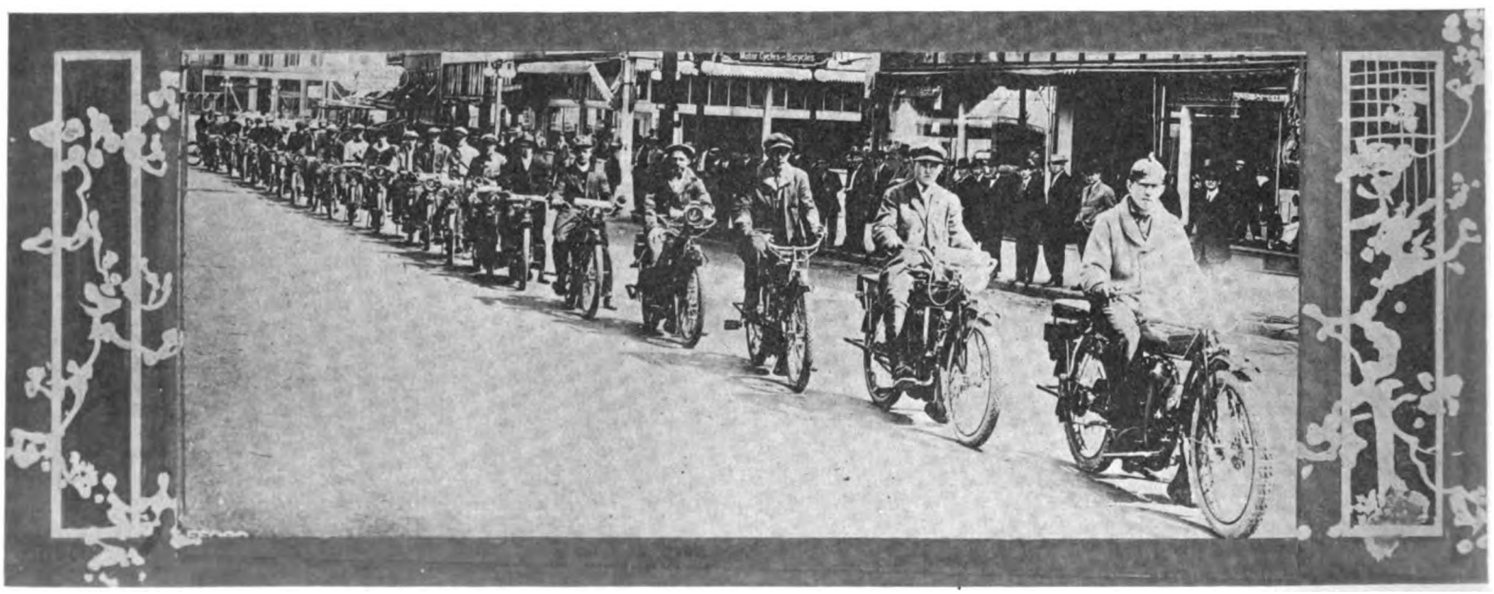
In the first place the life of a roller bumper can be greatly increased if it is wrapped with common tire tape. Get some one to push down the end of the spring, to remove this from contact with the bumper, and then it will be comparatively easy to wrap successive layers of tape about the rubber. If a bumper seems likely to drop apart when you are many miles from a new one, this treatment will give it strength to last a long time after it would otherwise be useless.

It is not actually necessary to dismount the top of the fork supports to fit a new bumper. A very satisfactory substitute for this rather troublesome job is to split the rubber open lengthwise with a sharp knife, whereupon, by pushing down the end of the spring, the bumper can be slipped into its place very easily. Then it should be wrapped with a liberal supply of tire tape to make it keep its shape and position. Since the bumper can be *rolled*, this tape wrapping operation is not so difficult as it might appear. It is merely necessary to remove the pressure of the spring.

Of course, if your machine has a spring frame, this should be oiled frequently, just as the spring forks must be oiled. On 1913 Indian machines one should examine the lower bumpers occasionally to make sure that they are not working loose. If one or both of them should chance to be lost, a beer bottle cork, cut to fit and held in place by wrappings of tire tape, will make a good substitute until a regular bumper can be obtained. It is a poor plan to ride a machine with the bumpers missing, as then the springs have excessive play, and if the motorcycle is driven over a very rough road, broken springs may result. In fitting new rubber bumpers either to frame or fork, try to get a section cut from hose of the right size, rather than one of pure rubber. The hose is made to stand heavy pressure, and its rubber is strongly reinforced and interwoven with canvas, so that this type of bumper will outlast several of the pure rubber kind.

If the roller bumpers on your spring fork wear out very rapidly, there is something radically wrong. The leaf plates may not be absolutely true, thus bearing on one side of the rubber more heavily than on the other; or the spring may press too firmly against the bumper. The present one on my machine has covered well over eight hundred miles, and is just as firm as the day it was put on.

H. D. CAPRON, manager of the Toledo Yale store, acted as host at a dinner given to thirty-three Yale riders who recently made a run to Fostoria. The only trouble experienced on the 100-mile trip was one puncture.



A Line-Up of Indian Riders in Seattle, Wash. Where Ballou & Wright Handle the Wigwam Products.

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Gale Makes Angola-Boston Trip in 19 Hours

ONCE more M. E. Gale has proved himself an intrepid pilot of the single-tracker and his Emblem twin has demonstrated its ability to put the miles behind in record style regardless of weather conditions. On Thursday afternoon, May 15, Gale left Angola for Boston, Mass., with a view of establishing a record for the trip, and at 11 a. m. the following day he arrived at his destination. He had spent 19 hours on the machine and covered 600 miles.

As usual Gale carried a passenger in his novel "sociable" seat, his companion on the dash to Boston being Willard Hudson. The latter weighs about 190 pounds and Gale's weight is 180 pounds, so it is evident that the Emblem carried a fair load throughout the run.

A bulletin received by the Emblem folks from Albany brought the news that Gale and his companion arrived there at 3 a. m. on May 16, and that some rain had fallen. The storm left the roads in rather poor condition, but the hardy pilot kept his mount up to its best work and had the satisfaction of sending the following telegram from Boston:

"Arrived 11 a. m., May 16. On machine 19 hours. No trouble; never had engine work better. Climbed everything, and fast enough. Killed one cat."

Records are not at hand relative to the best previous time on a motorcycle between Angola and Boston, but it may be taken for granted that Gale's figures will stand for some time, especially in view of the fact that the machine carried double throughout the journey.

Gale and Hudson upon their arrival in Boston.

NEW SANCTION RULING

CHAIRMAN J. P. Thornley, of the F. A. M. competition committee, announces the unanimous adoption of the following resolution introduced by Director Sauer:

"Resolved: That the chairman of the competition committee be, and is hereby, authorized to grant sanctions free of charge for all competitive events held in direct connection with an annual F. A. M. State convention. Application for such free sanctions shall be made by an authorized State official or State committee, who shall demonstrate to the satisfaction of said chairman that said sanctions are desired for an endurance run, race meet, or other competitive event which is part of a program including the regular annual State F. A. M. convention. Such sanctions shall be granted not more than once a year in each State and may be for an endurance run, or race meet."

DISTRIBUTING F. A. M. BOOKLETS

ALL renewal cards being sent out from Secretary Gibson's office are accompanied by a slip announcing that the 1913 F. A. M. "Helping Hand Book" and the 1913 booklet giving the names of several hundred registered repair shops are ready for distribution, and may be had on application to the secretary's office.

How to Calculate the Weight of Flywheels

WEIGHTS of flywheels can only be approximately given. The weight referred to is that of the *rim* and as flywheels are of cast iron it will be an easy matter to calculate the width and depth of the rim, using a web of three-sixteenths of an inch on each wheel. In fact, it would be a good idea to use the flywheels of a 4 h. single-cylinder motor as general patterns, machining the blanks down until they are of the proper weight. Do not have the castings made at a stove works.

The formula by which the weight of a flywheel is calculated is $w = 9.8\ (bl \div r)^2$ pounds, when w is the weight of the rim, b the bore in inches, l the stroke in inches and r the radius of the wheel. This is for a V-type twin motor. Then with b as 3¼, l as 3¼, and r as 6 inches (12-inch diameter flywheel), w will be $9.8\ (13/4 \times 15/4 \div 6)^2$ or 36 pounds for the pair.

This is before balancing the flywheels. Run each with the axis horizontal before drilling for the crank-pins, and see that they cease to revolve indifferently: i. e., at any point on the rim when the motion has stopped. Next drill the holes for the crank-pin and fit the latter in place in both wheels. Mount the pair with their shafts on knife-edges and balance for the crank. This is done by drilling the rims so that the crank-pin will teeter above and below the horizontal when the wheels are rocked on the knife-edges. Finally, put on the connecting-rods and pistons and hold one set horizontal and the other at 45 degrees above. Now drill or add weights to the flywheels until they teeter or "balance" through a small arc from the horizontal position.

WHAT is the weight and size of flywheels for a twin motor, of 3¼-inch bore and 3¼-inch stroke, running at the usual speeds? I intend to use this motor for touring purposes, and apply to you since I cannot find any data on the subject of flywheel design or its construction. Please tell me also how to balance flywheels.

JOHN J. DILLON.

You will now have the best balance for running that is possible in a 45-degree twin motor, which we presume is the type you intend to fit the flywheels to. The weight of the flywheels will be reduced somewhat by this time, or added to, if weights are applied instead of the rim being drilled. The flywheel castings will have two bosses, 180 degrees apart. One of these is for the crank and the other for the counter-weight. Drilling for balancing is done in the immediate vicinity of the crank through the rim from side to side. The web is not touched. It must be borne in mind that each flywheel weighs 18 pounds, not each 36 pounds. This weight of wheel will give a motor that will pick up well when the throttle is opened, and run satisfactorily at slow and low-medium speeds. The connecting-rods must each be of the same weight, and this is also true of the pistons. You will see from the above that the balancing is individual work for each motor and that turning out a lot of flywheels of equal weight and assembling them with a scratch lot of pistons and connecting-rods whose weights vary is out of the question.

There are no books in the English language on the design of motorcycle motors, but you can get valuable information from "The Gasoline Automobile," by P. M. Heldt, Volume I. This work is a compendium of present motor design, rather than an original book, and is almost the only one of its kind in English.

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A MATTER of DOLLARS & CENTS

by L. F.

THERE is no denying that in time even the most enthusiastic motorist will come to regard his vehicle, whether motorcycle or automobile, from a dollars-and-cents viewpoint, and it is logical that he should be influenced by the make-up of his expense account. I have had considerable experience, covering both motorcycle and motor car fields, and I have found it very interesting to keep a strict watch upon my expenditures. This policy, pursued from the purchase of my first motorcycle to the present time (I entered the ranks of automobilists in 1912), has enabled me to prepare the tables embodied in this article, and in view of the fact that all the figures given are based on actual mileage covered I believe they should furnish some food for thought.

My experience extends over seven years, dating from 1905. It was in the spring of last year that I bought a motor car and began to accumulate part of the data which appears hereafter. Early in 1905 I had a bad attack of "motoritus." I knew nothing of gas engines, except that many of them were used to propel vehicles from somewhere to somewhere else in the shortest possible time. But that was all I needed to know. I decided that I must have a motorcycle, and after "counting the makes on the road" I made a purchase. I would like to add at this point that after having bought seven machines of the same make (a new mount each year), I have no fault to find with my original choice.

NOT A "BOULEVARDIER."

I well remember the momentous occasion when my first machine arrived at my home, snugly crated. I viewed it with a feeling of pride, not unmixed with awe. Attached to the machine in many places were tags bearing instructions for the novice and a booklet on "How to Operate the Motorcycle" was also supplied. All these I perused carefully, and I recall thinking that the subject was pretty fully covered. I soon had the machine in working trim and experienced no difficulty in getting under way. I was several hours late for dinner that evening, but otherwise everything went off in great shape.

Since that time I have ridden between six and ten thousand miles a year on the motor two-wheeler. During that period I have on all occasions made my own repairs and studiously avoided the repair shops, except in the few instances when I did not possess the proper equipment to do justice to the job. My machines have always been driven hard and fast—too fast, perhaps. I am quite proud to be able to say that I have not been elected a member of the "Grant's Tomb Tourists," as those of the motoring fraternity have been facetiously dubbed who do nothing but city touring between Seventy-second street and Grant's Tomb.

My motorcycles have carried me as far north as Rangeley Lakes, Maine, and the automobile to Belgrade Lakes and return. There are few roads, good or bad, within 200 miles of New York City that I have not traveled by both two and four-wheeler.

SOME INTERESTING FIGURES.

Let me say before going further that I have proved to my own satisfaction that speed and poor roads have a direct and costly bearing on the expense attached to operating any rubber-tired, gas-driven vehicle. It has always been my custom to run my machines as economically as was consistent with maximum efficiency and to this end I have kept an accurate account from day to day of every penny I have spent during seven years of driving my motorcycles and the car. The comparisons are interesting. From March 16, 1910, to March 16, 1911, I used a new 1911 model, twin-cylinder, 5 h., chain-driven machine, and for the season distance of 9,486 miles my record shows costs as follows:

Actual running expenses: Gasoline, 210 gallons; oil, 15 gallons; repairs and parts, tires and patches, nuts and bolts, extra pedal and minor articles—$91.89. This gave me an average running cost of $0.009 per mile.

For accessories my outlay was as follows: Prest-O-Lite tank and lamp, magneto switch, oil can, horn, New Jersey license, spare parts, speedometer, cut-out whistle, horn reed, etc.—$34.70. Thus with running expenses and accessories I had a total of $126.59. Figured on this basis my operating cost per mile was $0.0125. To this total must be added the cost of the machine, $300, less the amount for which I sold it, $190, or $110. This gives me a grand total of $236.69. Let us figure the average cost per mile once more and we have $0.025. In other words, that is what it cost me per mile to run my motorcycle during the season. Average gasoline consumption, 45.18 miles per gallon; oil, 632½ miles per gallon.

RECORDS FOR THE SECOND SEASON.

From March 16, 1911, to March 16, 1912, I used a new 1911 twin, 7 h., chain-driven and with two speeds. My mileage for the season was 6,750 and my record shows costs as follows: Actual running expenses, including 153 gallons of gasoline, 10½ gallons of oil, repairs, tire and patches, two extra pedals, etc.—$61.98. This gave me an average running outlay of $0.009 per mile.

My accessories during this season were as follows: Speedometer, pliers, oil can, goggles, gauntlets, cold chisel, gas tubing, lamp reflector, set of wrenches, short drive chain, etc.—$23.89. Adding this to the running expenses gives a total of $85.87, and on this basis the operating cost per mile was $0.0125. To this must be added the cost of the machine, $300, less the selling price, $200, which left the actual cost to me at $100. In all, we have $185.87, giving an average cost per mile for the season of $0.027. The gasoline consumption was at the rate of 45 miles per gallon and oil was used on a basis of 643 miles to the gallon.

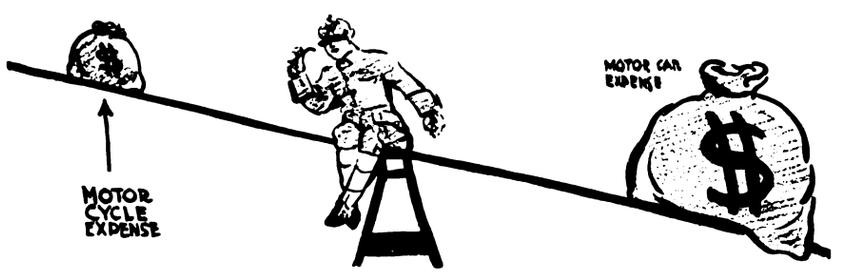
It is interesting to note the degree of consistency shown in the two tables given above. The same consistency marks the records for all my other seasons on the motorcycle. The differences were so small as to be almost insignificant.

During March, 1912, I purchased my new motorcycle as usual, the latest and most powerful mount obtainable, but in May I became possessed of a motor car and I decided to sell the two-wheeler. The car, be it known, was neither Packard, Peerless or "Buick," but it has since shown itself deserving of the enviable reputation it holds. It was a 1912 four-cylinder model, rated at 35 h., and as with the motorcycle I got half my pleasure out of storing and washing it.

THE MOTOR CAR'S SHOWING.

In the past year I have driven the four-wheeler 10,085 miles, and as usual I have kept a strict watch on my expenditures. In considering the following table it must be borne in mind that it includes the outlay for a 1,200-mile trip to Maine with four passengers. Journeys of this kind are bound to increase the general cost of tires, gasoline, oil and upkeep to a perceptible degree.

The car equipped, cost $1,721, the insurance meant an outlay of $109.30 and storage in a garage for



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seven months added $175 to the bill. I used 611 gallons of gasoline, and this, with oil, repairs, tires, tubes and minor details cost $361.63. Thus we have a total outlay of $2,366.93 for the season, less the present value of the car, $1,000. The actual cost (no interest allowed) was $1,366.93.

Now let us sum up. The actual running expense for the car was $361.63, or $0.036 per mile, for 10,085 miles. The motorcycle cost in operating expense $61.98, or $0.009 per mile, for 6,750 miles. Including storage, the car necessitated an outlay of $536.63, or $0.053 per mile, for 10,085 miles, while the motorcycle including accessories cost $85.87, or $0.0125 per mile, for 6,750 miles. The motor car, counting deterioration and insurance, cost $1,366.93 or $0.135 per mile for 10,085 miles, and the two-wheeler including deterioration was operated on a basis of $236.69, or $0.027 per mile, for 6,750 miles.

It will be seen that I averaged 17½ miles per gallon of gasoline with the car, and 44 miles per gallon with the motorcycle; that the car used oil at the rate of 102 miles per gallon, while the motorcycle ran at the rate of 643 miles per gallon.

As to the pleasure derived from the motorcycle in comparison with the motor car, each owner will have to form his opinion. Many car owners will defend their choice with a contemptuous: "Motorcycles are dirty, noisy things, and besides you are usually alone." From personal experience I can state that motorcycles are not dirtier than automobiles if the owner takes entire charge in both cases. The modern motorcycle is not noisy. Nor is it necessary to be lonesome when riding a motor two-wheeler. I have never felt so when chugging about with one boon companion. The comparative costs speak for themselves in favor of the motorcycle. You can travel anywhere that an automobile can, and possibly go into some districts where a motor car could not travel—and you can get there more quickly.

Seven Perfect Scorers in 24-Hour F.A.M. Grind

Thirty-Five Riders Started in First Big Run of Indiana State Organization But Only Twelve Finished and Five of These Had Lost Points—A Thunder Shower Enlivens Road Work.

INDIANAPOLIS, Ind.—Thirty-five riders started in the first annual 24-hour endurance run of the Indiana State F. A. M. on Sunday, May 18, and twelve finished. Of these seven are believed to have kept their scores intact. At latest reports two checking sheets remained to come in, but these are not likely to change the standing of the contestants whose records were perfect otherwise.

Following are the perfect score riders: I. F. Jacobs and C. A. Leander, Yale; E. G. Baker and Nelson Hodgin, Indian; Otto Sommers, John Merz and Harry Thompson, De Luxe. The others who finished the grind, but whose scores were damaged on the way: George Von Staden, Indian; C. H. Sargens, Indian; Noble Shepherd, De Luxe; V. O. Scanling, Indian, and Fred Stalnaker, Indian.

The riders were sent off at one-minute intervals, Baker and Hodgin leading the way. The first town on the route was Waverly. On this stretch the roads were good and a lively pace was set. Near Gosport the roads were poorer, but the boys managed to keep their machines on the jump. A few riders became confused and got off the route before reaching Spencer, the checking station. As the roadsters approached Terre Haute a thunder shower struck the district and left the roads with a layer of mud and numerous miniature lakes. At Terre Haute, however, all the contestants who counted upon finishing the run were on schedule and ready for more hard going. Several had damaged their machines in spills and had ridden on to Terre Haute although it was evident that they would not be able to finish.

As Rockville was reached darkness fell and the boys trimmed up their headlights. The night schedule was 12 miles an hour and it proved easy. Nearly all the riders were ahead of the schedule and daylight found them in good humor. From Frankfort, through Alexander, Richmond and Greenfield to Indianapolis and the home checking station the trip was marked by consistent work on the part of the survivors. There were some spills, of course, and a few instances of pure hard luck, but the squad rode on gamely and those who got through felt that they had earned their laurels. The scores were as follows:

E. G. Baker, Indian, 1,000 points; N. J. Hodgin, Indian, 1,000 points; I. F. Jacobs, Yale, 1,000 points; William Bailey, Yale, out near Indianapolis (short-circuited magneto four miles from home); H. E. Thompson, De Luxe, 1,000 points; Noble Shepherd, De Luxe, 968 points (16 minutes late at Richmond); Otto Sommers, De Luxe, 1,000 points; John E. Merz, De Luxe, 1,000 points; W. J. Denny, Indian, out at Frankfort; C. A. Leander, Yale, 1,000 points; E. V. Oberting, Indian, out at Alexander; Forrest M. Turner, Indian, out at Richmond; T. Constable, Merkel, out at Frankfort; F. Ellinghausen, Harley-Davidson, out at Frankfort; R. L. Hultgren, Jr., Dayton, out at Frankfort, R. H. Larsh, Dayton, out at Frankfort; George Von Stader, Indian, 988 (six minutes late at Richmond); C. H. Sargent, Indian, 986 (seven minutes late at Richmond).

Others who left the ranks at Frankfort were: J. C. Carr, Reading-Standard; Minor Ennis, Indian; Fred Dyer, Indian; F. D. Thompson, Indian; E. Chandler, Indian; A. W. Lee, Indian; Harry Clay, Indian; Paul Brede, Indian; J. E. Early, Harley-Davidson; Charles Mark, Indian; W. Simon, Indian; O. Hammel, Indian; D. Staub, Indian; C. C. Palmer, Indian, out at Richmond; A. C. Furgeson, Excelsior, out at Richmond; V. O. Scanling, Indian, 992 (four minutes late at Richmond); F. A. Stalnaker, Indian, 992 (four minutes late at Richmond).

A notable feature of the run was the remarkable performance of the Spacke De Luxe motorcycle motors, made in Indianapolis, which are used as standard equipment by many motorcycle manufacturers.

Six motorcycles using De Luxe motors were entered in the run and of the six three finished with perfect scores, one was penalized a few points due to a shortage of gasoline, and the other two dropped out of the run, because of defects in the motorcycle frames.

In each of the six cases, however, the De Luxe motors ran perfectly, and as far as the motor was concerned all of these motorcycles could have finished with perfect scores. In addition to the four De Luxe entrants the two Dayton machines carried Spacke motors and experienced no mechanical trouble.

McLain Remains State Commissioner

Indianapolis Booster is Re-Elected at First Convention of Indiana F. A. M. Body—Officers Are Named and Delegates Chosen.

INDIANAPOLIS, Ind.—At the first annual convention of the Indiana F. A. M., held in this city May 16-17, twelve delegates were elected to represent the state organization at the coming national assembly of the Federation in Denver. Each of the delegates will make the trip to the convention city by motorcycle. The Indiana representatives have been instructed with reference to a number of reforms favored by the state body of the F. A. M., chief among these being a suggestion that the constitution be amended to provide for returning to state organizations a percentage of the funds turned in by them to the parent body. It is argued that in this way state officials would be enabled to carry through their work on an improved basis and that the riderss would feel that they were getting more direct returns.

O. F. McLain, state F. A. M. commissioner, whose activity was largely responsible for bringing about the first convention of the Indiana riders, was unanimously re-elected for another term. Delegates from nearly every county in the state were present at the Indianapolis meeting and the organization was placed on a sound footing. Officers were elected as follows: E. P. Whitmer, secretary; Charles Wyatt, treasurer; Thurman Constable, of Union City, chairman of the Competition Committee; E. E. Stillabower, of Columbus, chairman of the Press Committee; Fred Stalnaker, of Terre Haute, chairman of the Legal Action Committee; C. W. Zoller, of Muncie, chairman of the Membership Committee, and J. H. Kinney, of Indianapolis, State Referee.

Following are the twelve delegates who will represent the Indiana organization at the national F. A. M. assembly: O. F. McLain, Erwin G. Baker, John Merz, David Bauman, Ray Hoffstatter, E. P. Whitmer, John Carr and Walter Denny, of Indianapolis; J. E. Early and W. Z. Retz, of Muncie; G. C. Palmer, of Chalmers and E. V. Oberting, of Lawrenceburg.

The convention opened Friday evening, May 16, at the Denison Hotel and was marked by addresses by State Commissioner O. F. McLain, F. A. M. Director F. L. Willis, Annis Burk (representing Mayor Shank), J. H. Kinney, Jesse Campbell and others.

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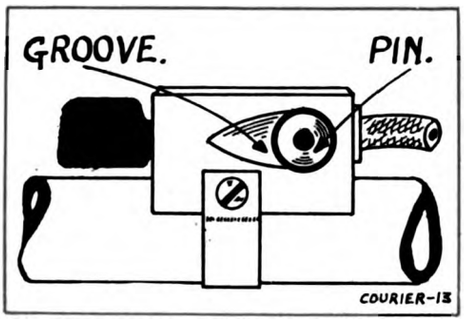
TIPS And TOPICS

THERE are magneto switches and magneto switches. Some are good only for racing or looks, and others are really dependable for road riding. The former class involves a spring blade, having a button on one end, which the rider presses against the bar when he wishes to short-circuit the magneto, and is very effective as long as the blade or contact-piece is actually making contact with the handle-bar. But the spring of the blade is pretty strong and the thumb soon tires of the constant pressure—usually before the motor is reduced enough in speed to prevent its picking up when the magneto is again on open circuit. And when the rider releases the button, we have strenuous reports of muffler-fired charges, or as I have several times seen (and heard), we may find the mufflers setting out on a short trip by themselves and leaving the end of the exhaust pipe projecting lonesomely under the bottom-bracket. The rider then has to retrieve the piping-hot silencing device, which he usually does with the toe of his boot, or sadly glean the fragments of "the most effective muffler on the market" and continue with a permanent cut-out, to the annoyance of others and at the risk of arrest.

This is hardly the proper form of switch, to my mind, and certainly gives no comfort in ordinary use. The throw-type is as effective and is positive. When it is thrown the magneto is short-circuited or not, there is no off-and-on business, and thumb pressure isn't relied upon. By the throw-type, I mean that the switch blade is pivoted at the front and moves horizontally on an insulated block. At one side of this block is a metal piece which is electrically connected to the handle-bar and the magneto is switched off when the blade contacts with the metal piece. It's an easy matter to twitch the blade over into contact with the metal piece, and when it's there the short-circuit is genuine.

SWITCH AND SAFEGUARD.

USUALLY the contact is exposed to the air and the blade has a very short throw, so that moisture or dirt have an opportunity to cause short-circuits by getting in between the blade and the contact. The better form has a cover or top piece which prevents this, and on one machine I have fitted an additional part which acts as an "anti-crook" or safeguard. Through the ebonite body of the device I ran a steel pin whose inner end contacts with the end of the switch-blade when it is pushed inward. This pin has a continuous contact with the handle-bar through a springy piece of metal and there is a metal knob on the outer end. The ebonite casing is grooved so that the little finger can be used to pull out the pin when the rider is ready to start.

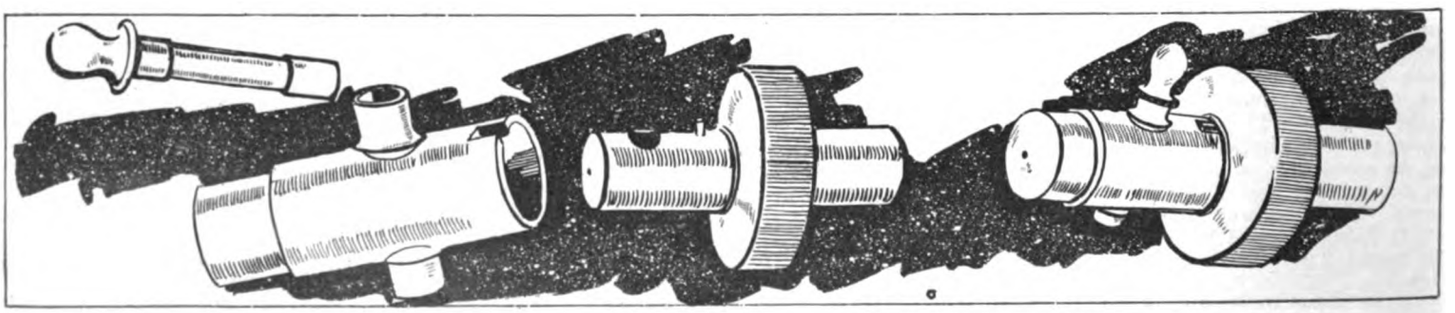


When you want to stop by switching off, use the switch blade and follow this by pushing in the pin. I left the pin naked, so that I would not get into the habit of switching off by pushing it in; as I generally ride bare-handed the voltage of my magneto would quickly remind me as soon as I touched it, and at first I was reminded several times. The man who wants to make away with my machine will have to pull out the pin before it will start and then throw the switch. The farther from the center he moves the blade the harder it will be to start, as the center position is the running one and the end positions short-circuit the magneto. With this rigging, I do not generally feel the need of a lock. The pin with its head sticking out when the motor is running often has an irresistible attraction for "fiddlers" but the pushing in is rarely finished, owing to the magneto getting in its good work. You can see the idea from the sketch on this page.

TREATING THE FLANGES.

ONE machine that I have frequently ridden in the past is now used by its present owner and myself for trying out various "kinks." By this time its builder would not know it at first glance and both of us have been asked what machine it is. The maker heavily nickel-plated the cylinder, thus reducing the radiating power, but this we got over in course of time by wear and treatment with weak acid solutions. A bright cylinder does not, contrary to popular opinion, radiate heat so well as a dull black one, and while plated flanges are not a serious matter on a moderate-compression motor, they mean something in summer on a high-compression power-plant. So we experimented with stove blacking, grey graphite paints and enamels, and found that a dead black radiator paint helped considerably. Last summer we used to get out the machine and drive it on the hottest days, finding that the dead black surface reduced the chances of overheating way below those of the nice nickel-plated cylinder.

My partner is experimenting with a pickling bath to remove the plating and burns from the exhaust pipe, which will then also be coated dead black. We both think that this kind of finish will eventually supersede the present shiny one, which is used more for looks than service. The burns on the plating of an exhaust pipe seem to me to appeal to the color sense: maroons, browns and blacks contrast with the nickeling, but other than this the plating has no real reason for existing, any more than the gilt striping on a shoe machine or the buttons on the back of a man's coat. We are looking for efficiency these days, and appearances are not of primary importance.



English sidecar fitting designed to simplify attachment of the third-wheeler.

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How Cleveland Rider Built a Portable Garage

Twenty Dollars Was the Total Outlay for Material Used in Roomy Motorcycle Shed and Labor Added Ten Dollars to the Bill—Some Pointers on Dimensions Based on Actual Experience.

By Walter M. Dickinson.

IN one of your recent numbers you printed an interesting article dealing with the construction of a home garage for motorcycle service, but I noticed that it was not of the "knock-down" type and, as I am convinced that this style of building gives the best general results for the motorcyclist I am forwarding some data. I had built a portable motorcycle garage before your article appeared, and I am in a position to assist other riders who may be confronted by the problems that bothered me.

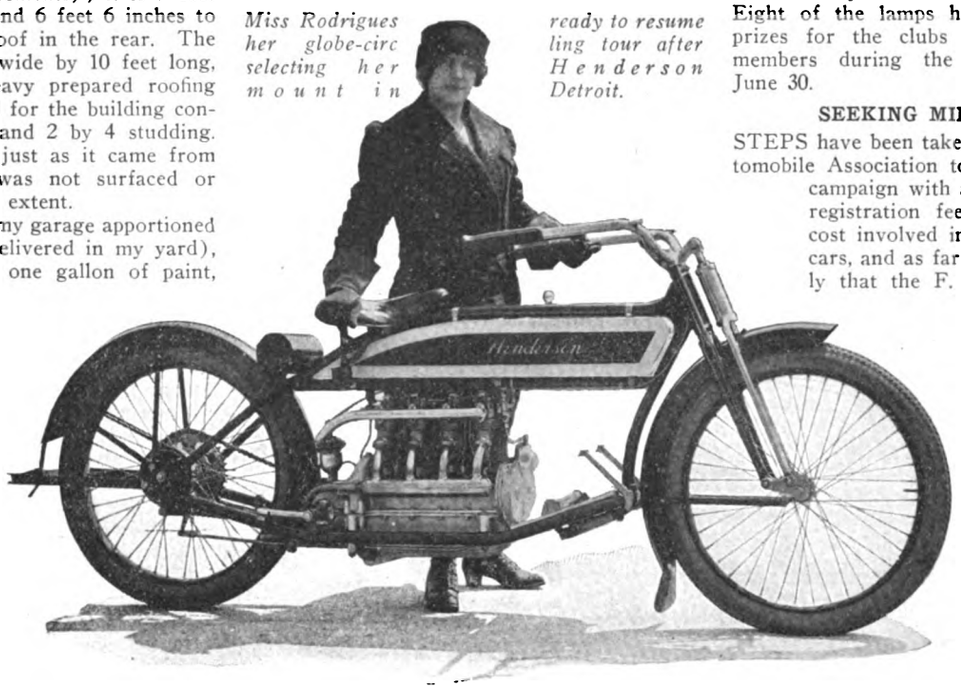
My garage is in six sections: floor, sides, back, front (including door-frame and door) and roof. When the garage is to be occupied these parts are fastened together securely with angle iron clips. Each leg of the iron clips was drilled for two 3/16-inch wood screws. Thirty of the angle iron clips were required in all.

The garage is 4 feet 6 inches wide by 9 feet long (inside measurements); it is 7 feet 6 inches high in front and 6 feet 6 inches to the under side of the roof in the rear. The roof is 5 feet 8 inches wide by 10 feet long, and is covered with heavy prepared roofing paper. The lumber used for the building consists of 1 by 8 boards and 2 by 4 studding. The material was used just as it came from the lumber yard and was not surfaced or touched up to any great extent.

I found the outlay for my garage apportioned as follows: Lumber (delivered in my yard), $15; hardware, roofing, one gallon of paint, nails, screws, angle clips, etc., $5; carpenter's time (2½ days), $10. You will see that this gives a total of $30. Two coats of paint were put on by the writer, so that these are not included in the cost of construction. Before I started work on my garage I showed my plans to a firm in my city that has made a specialty of garages for motor cars and in due time I received an estimate of $45 for the material and work. This price provided for only one coat of paint and did not include setting up the building. My price of $30 includes everything, and means that the garage is ready for the machine.

As Cleveland is centrally located and prices here are about normal I figure that my expenses are as low as they can reasonably be made, and that Mr. Weil who contributed the article in your March 20 number placed some of his estimates too low. Of course, I have no positive knowledge that this is the case, but judging from the information I obtained when preparing my plans I do not believe the material mentioned by Mr. Weil can be purchased in many sections at the prices he quotes.

My garage has a single wide door, hung on heavy hinges each of which is held by eight through bolts 3/16 of an inch in diameter. There is no window and no means of ventilation, as I do not consider either necessary. They simply make the building easier to break into. Here's another point. My garage is 9 feet long (inside measurement) while Mr. Weil's plans showed a building 8 feet long (outside measurement). I argue that it is impossible to handle a motorcycle comfortably in a garage that is only 8 feet long on the outside. In order to place the machine on the stand it is moved toward the back of the garage until the front wheel touches; then when it is pulled back to bring it up on the stand there is very little room to spare. I find that I need the length of 9 feet in my building and I do not see how any rider of a standard machine can get along with less if he wishes to avoid trouble and profanity.



Miss Rodrigues ready to resume her globe-circ ling tour after selecting her mount in Henderson Detroit.

GIRL TOURIST ON A HENDERSON

MISS DORA RODRIGUES, of Holland, who has already covered the greater part of a globe-circling tour by foot, recently visited Detroit and while there decided to complete her journey on a Henderson motorcycle. The accompanying photograph shows her ready to take to the trail on her new mount. Miss Rodrigues has visited South America, Egypt, Panama, Mexico and many sections of the United States. The girl tourist is accompanied by her brother who acts as her manager in securing engagements at motion picture houses, where she lectures on her travels. On completing her trip Miss Rodrigues will return to her home in Holland and conduct a special course in the schools, based on her observations on the globe-circling tour.

F. A. M. CLUB PRIZES

CHAIRMAN ESTERBROOK, of the F. A. M. Membership Committee, makes the following announcement relative to the standing of affiliated clubs in the contest for Old Sol lamp prizes: Norfolk (Va.) M. C., two lamps; Hyde Park (Mass.) M. C., one lamp; Newburg (N. Y.) M. C., one lamp; West Philadelphia (Pa.) M. C., one lamp; Chicago (Ill.) Indian M. C., two lamps; Coldwater (Ill.) M. C., two lamps; Coldwater (Mich.) M. C., one lamp; Bayonne (N. J.) M. C., one lamp; Hornell (N. Y.) M. C., one lamp. These returns are for the months of March and April. The contest will continue for May and June. It is open to all clubs affiliated with the F. A. M., the awards being made according to the number of new members turned in to the membership chairman. The prizes are well worth striving for, being Old Sol lamps of the No. 8 type, rated at 1,500 candlepower and donated by the makers. Eight of the lamps have been set aside as prizes for the clubs bringing in the most members during the four months ending June 30.

SEEKING MINIMUM FEES.

STEPS have been taken by the American Automobile Association to launch a nation-wide campaign with a view of keeping state registration fees down to the actual cost involved in registering the motor cars, and as far as is possible it is likely that the F. A. M. will co-operate with the automobilists in this movement. Not long ago the executive committee of the A. A. A. took up the situation, and the aid of forty-four allied state associations is now being enlisted. The National Committee on Legal Action of the F. A. M. supports the A. A. A. committee in its contentions relative to registration fees, and it is intimated that a satisfactory working understanding will soon be reached.

WITH HOUSTON RIDERS

MEMBERS of the Houston M. C., of Houston, Tex., recently made a run to Beaumont. The riders left Houston on a Saturday night and rode to Beaumont by way of Dayton and Liberty. Leaving Beaumont Sunday morning the party proceeded to Port Arthur and thence to Point Bolivar, by way of Sabine Pass. From Point Bolivar a ferry was taken to Galveston, from which point the route to Houston was over the Causeway and the Webster shell road. The 200-mile course was covered without mishap. It is considered that the route followed is one of the most interesting in Southern Texas. The Houston club played host to the Galveston M. C. not long ago.

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Graton & Knight Co. Perfects Combination Drive

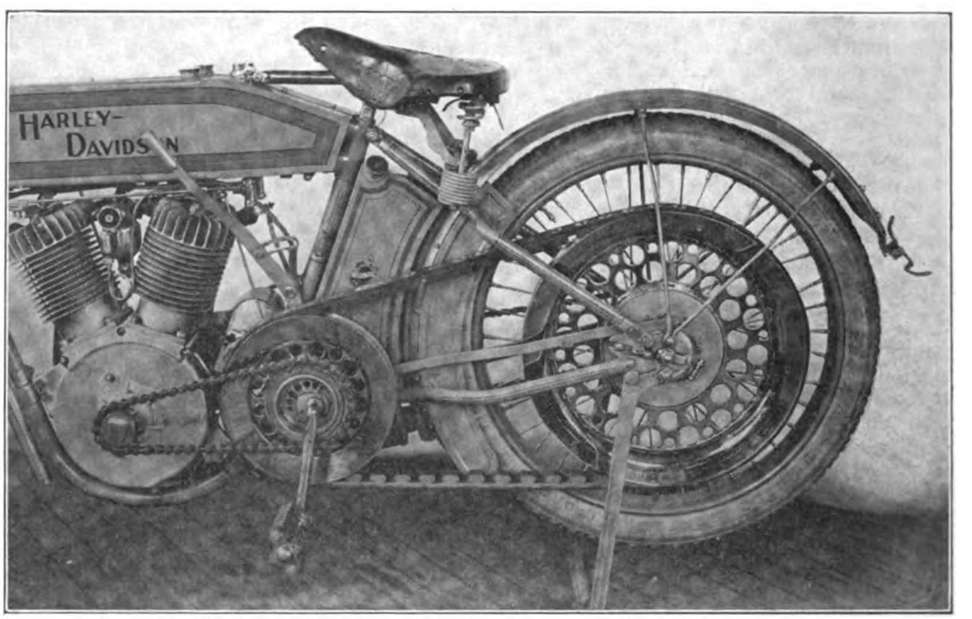
Well-Known Worcester Belt-Makers Are Successful in Adapting Chain-Cum-Belt Transmission to Harley-Davidson Twin and 1,500 Miles of Severe Running Has Brought Out No Defects.

By D. R. Hobart.

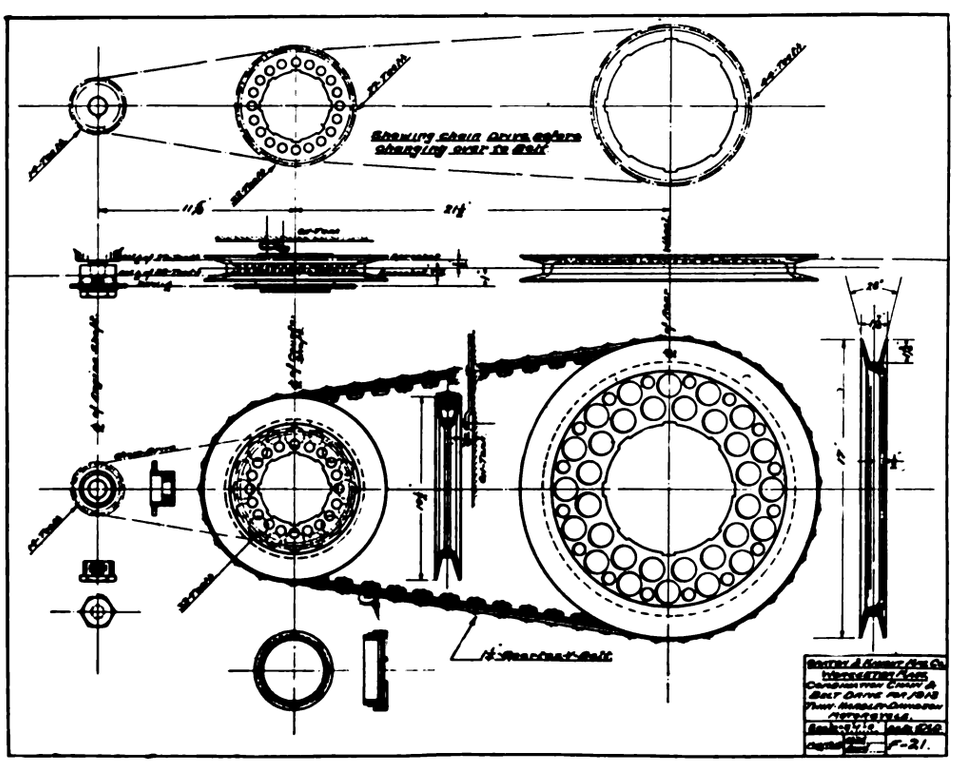
TRANSMISSION by means of the trapezoidal or V-belt has heretofore been handicapped owing to the design of the drivers which employed this form of belt. In the majority of cases a direct drive was used, the motor shaft having a small pulley on it and the rear wheel a large pulley attached, with the belt passing over both pulleys. As the gear ratios varied between 3¾ and 5½ to 1, the front pulley was rarely more than five inches in diameter and the arc of contact of the belt was insufficient to transmit the power of the larger motors. The rear pulley was necessarily near the road owing to its large diameter, and being unguarded took up dirt, pebbles and water.

COMBINATION DRIVE ADVANTAGES.

Having ridden several thousands miles on light-weight machines fitted with the combination or Douglas, and the undergear or N. S. U. drives, the writer could see no good reason why a properly constructed drive on one of these lines should not be suitable for even the highest powered motorcycles. Of the two types, the combination was thought more adaptable to most existing motorcycle transmissions with the minimum of changes. Furthermore, with the countershaft in use in the transmission, a large front pulley can be fitted thereon and the belt is gripped over such a portion of the pulley's circumference that only such slipping will occur as is provided for or is made necessary by the clutch or free engine device. The weight of the two-speed gear, when one is fitted, is centred better between the two wheels of the machine, and it is easier to detach a belt for wheel-removal than a chain. The countershaft permits of the fitting of the variable gear in that position, while whole transmission can have the clutch fitted on the motor shaft, countershaft or in the rear hub as desired. The positivity of the chain drive is obtained for the highest speed in the transmission and the flexibility of the belt drive to the rear wheel is also a desirable feature.



The Belt and Chain Transmission System; Note Construction of the Pulleys.



WHY THE V-BELT WAS USED.

Apart from the flexibility just mentioned, there are other qualities which a V-belt transmission has that recommended its use. The first of these is the low cost of upkeep as well as low first cost, there being only the belt and fastener to be considered. This brings us to the succeeding point of simplicity, and following this latter to quietness: there is no sound from such a belt running over its pulleys. Again there is minimum wear and tear on the frame and power-plant, due to the automatic "give" when an overload is suddenly applied. By flexibility is meant not only flexibility in a longitudinal direction, but also laterally. It is difficult to have the motor shaft member and rear wheel member of the transmission exactly in line, but misalignment seems to make no difference in a V-belt drive. The machine with the combination transmission mentioned below has been run with the rear and countershaft pulleys out of line for several hundred miles without appreciable effect on its efficiency, and the writer has had several mounts whose pulleys were chronically misaligned due to frame faults, but whose belts invariably remained on and drove well in spite of what in other transmissions would be a serious handicap. The points just treated were embodied in an article by the writer in the August 22, 1912, issue of MOTORCYCLE ILLUSTRATED. Nothing had been done regarding the actual choice of machine, etc., until the early part of last March.

During the period mentioned, the writer and W. W. Shoemaker, of the Graton & Knight Company, got together and determined to obtain a chain-drive machine of the countershaft type and convert it to the combination drive. The Harley-Davidson twin was chosen as being the most readily adaptable to such con-

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version, and accordingly the writer took the few measurements necessary from an agent's 1913 machine and turned over the working drawings to Mr. Shoemaker. The latter sent them to A. W. Darling, mechanical engineer at the Graton & Knight factory, Worcester, Mass. The finished drawings here shown were taken direct from the original pen-sketches and improved in appearance but otherwise unchanged.

CHANGES MADE IN THE CONVERSION.

The original chain drive incorporated a 14-tooth motor sprocket with a 33-tooth countershaft sprocket for the primary and a 27-tooth countershaft and a 44-tooth rear wheel sprocket for the final drive. All chains and sprockets were removed, and on the casing of the "free-wheel" device was fitted a 17-inch V-pulley, while a 10½-inch similar pulley was fitted to the countershaft. The rear pulley was offset as shown, so that the 1¼-inch Sparton belt used would run with ample clearance throughout, and the front or countershaft pulley was fitted in line with the rear one. An adapter was fitted to the countershaft to carry the 33-tooth (original) primary countershaft sprocket, but as the primary chain-line was 9/16 of an inch further out from the motor than when originally fitted, a collar for carrying the front sprocket was fitted to the crankshaft, and the transmission was complete. The webs of the pulleys were channeled to fit in their respective positions and give a positive drive, and holes were drilled to reduce the weight as far as possible. The entire construction was carefully supervised by Mr. Darling, and the results are eminently satisfactory.

GREAT CONTACT SURFACE OBTAINED.

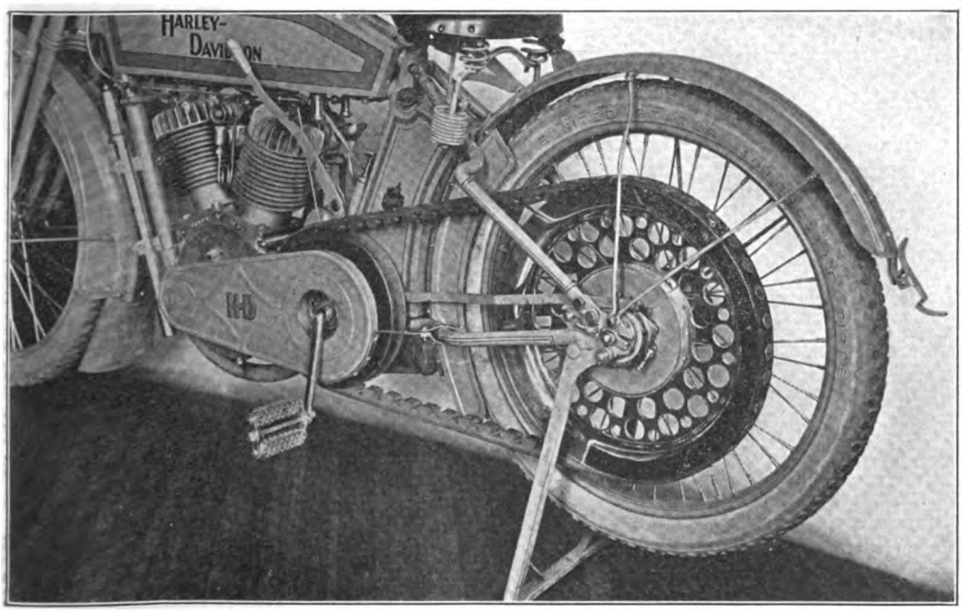
With the 10½-inch diameter front pulley, the belt contact is 16¾ inches, more than double that on any regular front V-pulley with direct drive. The rear pulley, 17 inches in diameter has nearly 30 inches of belt contact, and being well away from the ground, the chances of picking up dirt, etc., are very much reduced as compared with the present practice in belt driving. While the use of a guard is, in the writer's opinion, always desirable, it may prove to be unnecessary with the combination drive as arranged, unless heavy roads are ordinarily ridden over. The gear ratio is the same as on the chain-drive models: 3.84 to 1. The belt length is 7 feet 2 inches as compared with the 8 feet 6 inch belt used on a direct belt drive machine.

TESTS OF THE TRANSMISSION.

During the present month, the machine has been driven over 1,500 miles on Massachusetts roads to test its "standing-up" qualities, and

The Test Machine Climbing the Famous "Dead Horse" Hill in Worcester.

no changes have been found necessary. The original 5-ply belt has not stretched at all. Mounted by Messrs. Darling and Bert Ripley, the machine was run to test its hill-climbing abilities on Worcester's famous "Dead Horse Hill," among others, and every grade was taken easily with very slight throttle opening. On the 16th, Ripley started from Worcester in a heavy rain on the Harley-Davidson and arrived in Westfield 15 minutes ahead of the train which left three minutes after he started, doing the 65 miles in two hours. This trip took in Leicester Hill, one of New England's hardest for either two or four wheels, and despite the deep mud and holes, the machine made light of it. The return was made to Worcester the same day under like conditions. The rider, who used to be a chain enthusiast, says that the combination drive is the most comfortable that he has ever ridden over.



Another View of the Combination Drive, Showing the Chain Enclosed.

MAINE ROUTE BOOK

THE Maine Automobile Association has issued what is undoubtedly the most complete automobile road book of Maine that has ever been published. This book, which comprises 168 pages, is filled with touring information covering almost every section of the Pine Tree State. Pathfinding cars which were sent out by the association last year covered about 3,000 miles in Maine and 100 miles in New Hampshire, and the information contained in the road book is that compiled by these crews on their trips throughout the state.

New routes were laid out covering Maine's best scenic districts, and efforts were made to pick out the routes which were the best, or which were to be immediately improved. The book, which is handsomely illustrated and contains the most complete road map of Maine ever gotten out, is issued free of charge to all who write or apply at the Maine Automobile Association Touring Information Bureau, 12 Monument Square, Portland, Maine.

MORE OFFICIAL RED TAPE

THE Maryland Motorcycle Club of Baltimore will hereafter conduct its runs over the Washington-Baltimore pike only as far as Bladensburg, Md. This action has been taken for the reason that on previous runs to Washington several of the riders, ignorant of the recent district regulations requiring a Maryland motorcyclist to procure a District of Columbia operator's permit and registration number—even though he may visit the city only once in a year—have fallen into the clutches of the numerous police who line the entrance into the District of Columbia. These members have been fined to the limit of the law and sometimes compelled to remain in a cell over night through lack of collateral for a deposit to guarantee their appearance in court the following morning.

A BULLETIN

From the motorcycle headquarters of Spahr Bros., in Canal Dover, Ohio, comes the following timely bulletin:

"Canal Dover is strictly enforcing a speed ordinance which provides for 15 miles an hour in residence sections and 10 miles an hour in business districts. Please give warning as we wish to prevent visiting motorcyclists from encountering trouble in our city."

GEORGE M. BECKETT, a popular member of the Pittsburgh (Pa.) M. C., with his wife as a sidecar passenger, is making an extended tour of the East. His outfit consists of a 1913 Indian, T. T. model, and an Indian sidecar. Among the more important cities included in his route are Harrisburg, Philadelphia, Atlantic City, New York, Boston, Springfield, Albany and Buffalo.

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Brighton Bowl No Longer Under F. A. M. Sanction

Management Complains of Treatment Received From Federation and is to Operate Under Agreement With National Cyclists' Association—Chapple and Other Riders to Work Out Their Contracts

A STORM that has been brewing for some time at the Brighton Beach motordrome broke a week ago with the announcement that the management would discontinue its affiliation with the F. A. M. and operate for the present season under an agreement with the National Cyclists' Association. At the same time statements were made by Arthur Chapple and the other riders in training at the bowl that they would abide by the decision of the track promoters and compete under whatever rules and sanctions were provided. At the present writing there is nothing more definite to be said of the situation.

Riders who compete under the conditions outlined above will automatically suspend themselves from the F. A. M., and pending this development Chairman Thornley, of the Federation Competition Committee, has not been in a position to take any action. It is stated, however, that the stand of the Competition Committee will be firm, and that no exceptional concessions will be made in an effort to conciliate the track management.

"The F. A. M. competition rules are for the observance of all track managers and riders," says Chairman Thornley, "and the national body cannot permit anyone to dictate its policy with reference to a motordrome, any more than in flat track competition. We must interpret our rules as they stand, and if they are violated we must act accordingly."

The developments at Brighton did not surprise those who have been in touch with the attitude of the management. Not long ago Manager Wellman balked at certain standard stipulations in the F. A. M. contract which was to have covered racing at Brighton for the present season, and when the F. A. M. Competition Committee refused to take things for granted the track promoters rushed their plans for a "split" from the governing body.

The riders at the track are concerned only with the business aspect of the movement. A number of them claim to have been offered contracts, and rather than forego a season's work at Brighton they have decided to "stick." They are under the impression that if they left Brighton the management there could have them barred from other board tracks throughout the country and that they would be deprived of opportunities for competition. However this may be, Art. Chapple and his squad of colts announce their intention to work out their contracts.

"Chap," who is the only seasoned speedster in the present Brighton squad, states his case briefly: "I have a contract here if I stick," he explains, "but if I pack up and leave to keep within the F. A. M. regulations I'll be out of a job. The season is open now and the time is at hand for me to garner the shekels. I don't like this talk about an 'outlaw' movement, but from a business viewpoint I don't see how I would be justified in throwing up my contract. I'm for harmony if we can have it, but if we can't I want to keep on riding just the same." This expresses the sentiment of the other riders at the bowl.

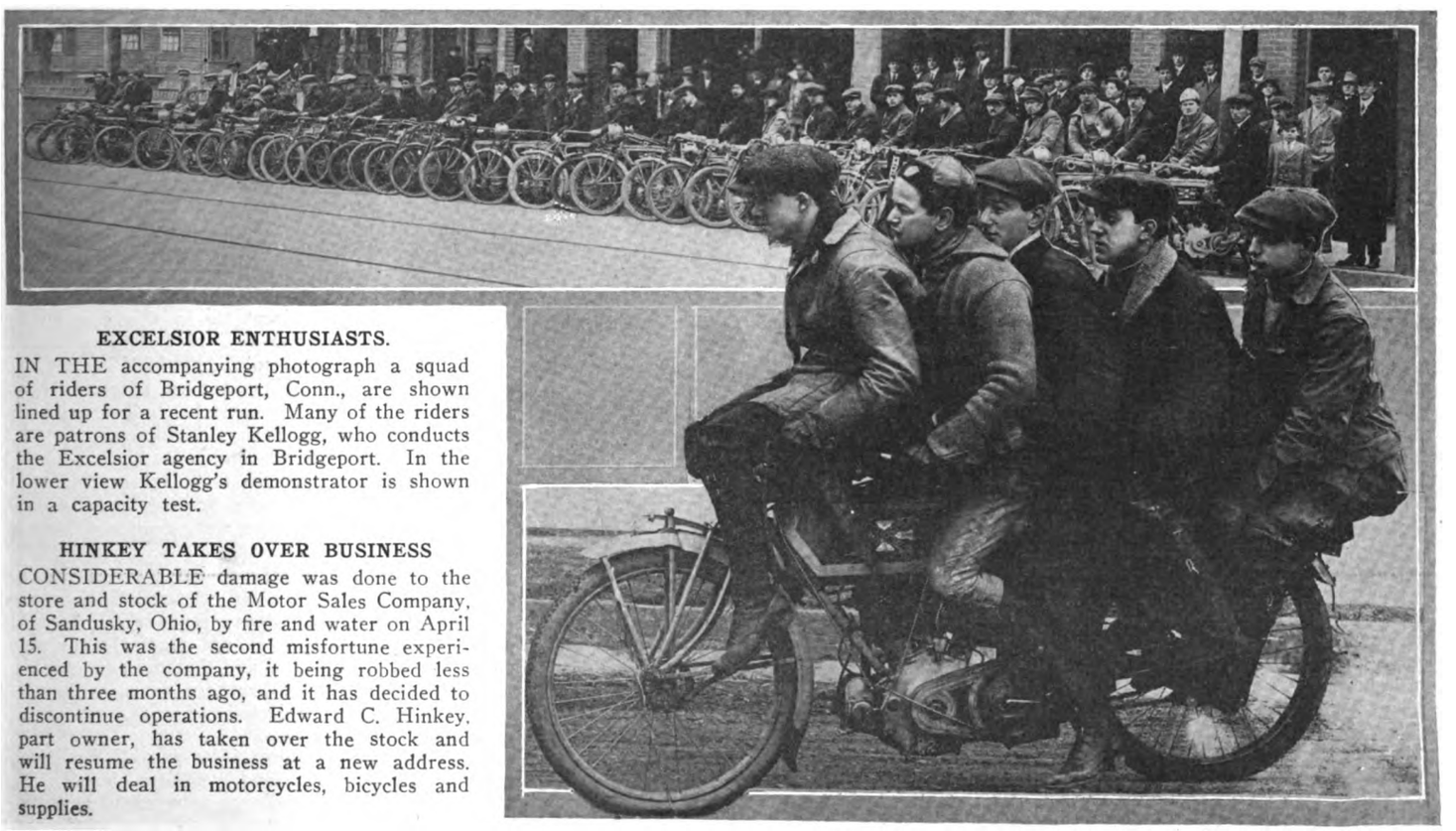
Try-outs have been held at Brighton for two weeks past and the opening is booked for May 30. It is understood that Lawson Robertson, the Irish American A. C. trainer, has been named by the N. C. A. to act as referee at the track. Nothing is known of the terms upon which the cyclists' organization has taken the track under its wing.

While the National Cyclists' Association has been flirting with the Brighton Beach boys a squad of its own members, including some of the best-known bicycle speedsters in the East, has split away from the organization and formed a new union which has been incorporated under the laws of New Jersey. Some of the riders concerned in the kick-up have been riding at the Newark (N. J.) Velodrome which is just across the street from the motordrome at Electric Park. Now that provision has been made for bicycle racing at the motordrome the new union of bicyclists will hold their meets there and run in competition with their former friends across the way.

There was nothing new about the N. C. A. split. The riders who have left felt that they were not being treated fairly and they simply packed up and moved across the street to the rival track, where their first meet will be staged on Decoration Day. The new organization is known as the American Racing Cyclists' Union.

CANADIAN GOODRICH BRANCH

THE B. F. Goodrich Company, Akron, O., will build a factory at St. Catherines, Ont., to employ about 1,000 men. The town has given the company 17 acres of land and fixed the assessment at $10,000 for 10 years.



EXCELSIOR ENTHUSIASTS.

IN THE accompanying photograph a squad of riders of Bridgeport, Conn., are shown lined up for a recent run. Many of the riders are patrons of Stanley Kellogg, who conducts the Excelsior agency in Bridgeport. In the lower view Kellogg's demonstrator is shown in a capacity test.

HINKEY TAKES OVER BUSINESS

CONSIDERABLE damage was done to the store and stock of the Motor Sales Company, of Sandusky, Ohio, by fire and water on April 15. This was the second misfortune experienced by the company, it being robbed less than three months ago, and it has decided to discontinue operations. Edward C. Hinkey, part owner, has taken over the stock and will resume the business at a new address. He will deal in motorcycles, bicycles and supplies.

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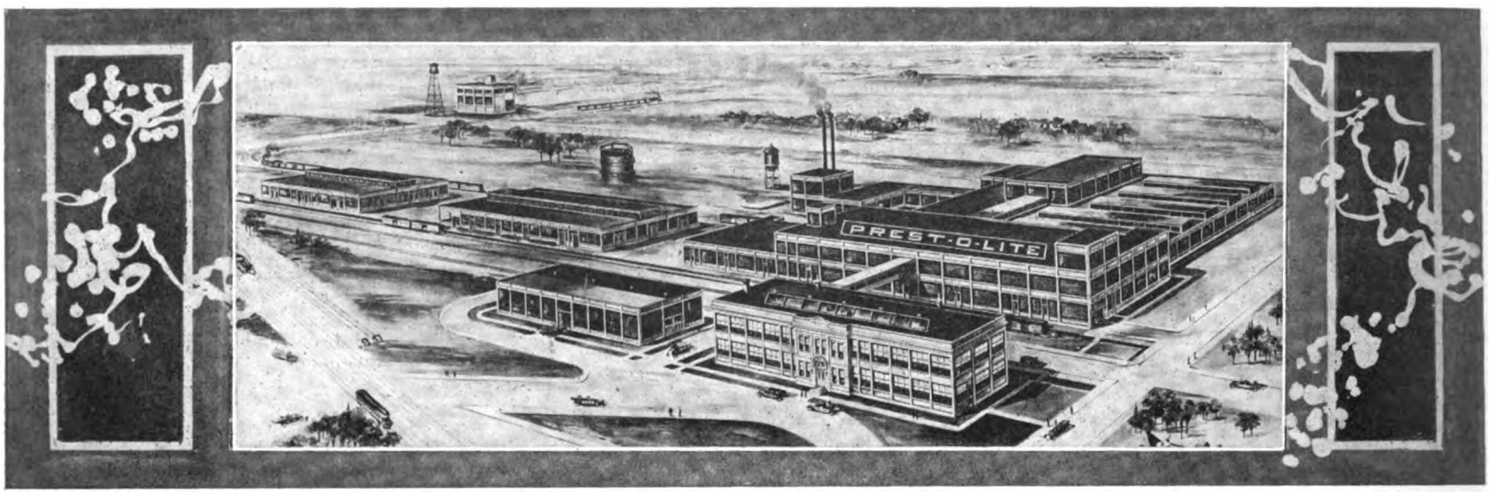
Prest-O-Lite Plant Opens in "Horseless City"

Plans For Big Industrial Center Near Indianapolis Speedway Are Advanced by Acquisition of Well-Known Manufacturing Company—New Presto Factory Has Floor Area of 275,370 Square Feet.



PLANS that were launched some time ago for a "Horseless City" near the world-famed Motor Speedway in Indianapolis were materially advanced on Monday, May 12, when the new factory and offices of the Prest-O-Lite Company were formally opened. The complete removel of this great factory from Indianapolis to the site of the new industrial community is the first important step toward assembling a group of manufacturing interests there that will insure one of the foremost automobile, motorcycle and accessory manufacturing centers in the world. Thus are the dreams of Carl G. Fisher, James A. Allison and their associates being realized.

At present there are two factories in operation in "Horseless City," those of the Prest-O-Lite Co., and the Schwartz Electric Co., the latter firm making automobile batteries and other electrical appliances. Negotiations are pending with a number of big manufacturing companies, in Indianapolis and elsewhere, and it is probable that in the near future a number of new factories, all devoted to the manufacture of automobiles, motorcycles and accessories will be under construction.

The new plant of the Prest-O-Lite Co. has a total floor space of 275,370 square feet. The group of buildings includes a general office building, factory and machine shops, generator house, charging plant, power plant, gas holder and garage. Warehouses at present under construction will, when completed, bring the total floor area considerably above 280,000 square feet. The plants vacated by the Prest-O-Lite Co., had a floor area of only 90,300 square feet. The group of new buildings cost approximately $500,000.

The main office is situated just opposite the main entrance of the Speedway, and is the center of the group of buildings. It is a two-story structure of reinforced concrete, with brick facing. The lower floor contains the accounting department and offices of the shipping department in the east section, and stock rooms and the post office take up the remainder of the lower floor. The volume of mail of the Prest-O-Lite Co. is so great that a regular government post office has been established to meet the demands made upon mail service. The offices of the sales and advertising departments are on the second floor, with private offices for each department and each executive.

Directly back of the general office building, and connected by a bridge, is the main factory where the steel tanks are made and where all the company's manufacturing, with the exception of gas-making, is conducted. This building is also of reinforced concrete, with brick facing. The estimated capacity of the factory is 1,200 Prest-O-Lites per day. A double railroad spur running along the entire front of this building and the shipping building to the east affords excellent facilities for loading and unloading cars. East of the main factory building, are the structures housing the charging plant, the power plant, and gas holder. The generator house is located about half a mile distant from the rest of the group.

The garage which houses the motor trucks and cars of Prest-O-Lite employees is located just east of the executive building.

The work of grading the grounds and approaches to the new Prest-O-Lite factory is now being carried on. A winding drive will lead from the road to the main office building and a wide expanse of lawn and gardens will cover the space between the buildings and the road.

The Prest-O-Lite Co. is holding its formal open house this week, and owing to the fact that the annual 500-mile International Sweepstakes race on the Speedway is booked May 30, thousands of visitors from all parts of the country are in Indianapolis, and hundreds of them have been made welcome at the new plant.

With the advent of new manufacturing interests to "Horseless City," work will be pushed on installing all modern conveniences. At the present time every street is piped for gas and water, and provision has been made for installing electric lights and electric street lamps. Streets have been laid out and are now being graded, preparatory to putting in curbs and sidewalks.

AN ATTRACTIVE LINE

PREMIER products, manufactured by the Premier Specialty Company, of 83-85 White street, New York City, include a full line of leather and fabric motorcycle supplies. Its line of Premier Leggings is made of black, russett, black and russett grain, sheepskin, army duck, waterproof canvas, silk mohair waterproof felt lined and unlined, black and russett pig grain and black and russett fabric leather. They are made in knee and thigh sizes and in various styles to suit the taste of the individual rider. A neat catalog which is offered by this firm describes in detail this unique line of leggings, as well as its assortment of luggage and tool bags, wrist supports, wind shields, motorcycle capes and leather and canvas tool kits.

RENOLD CHAIN DATA

THE student of transmission conditions who can find time for a little historical data will be interested in copies of letters from the London branch of the Hendee Mfg. Co. and Phelon & Moore, Ltd., the English manufacturers, that are now being circulated in this country by Peter A. Frasse & Co., of 417 Canal street, New York City, sole American agents for Renold chains. The Hendee letter calls attention to the fact that the Indian machines finishing first, second and third in the 1911 T. T. race were all equipped with the Renold products, and that the three Indians that won the team prize in the Scottish six-days' reliability trial last year were similarly fitted as to transmission.

The Phelon & Moore letter states that its machines which have carried off the team prize for four successive years in the A. C. U. six-days' trials have been regularly equipped with Renold chains, and that the company has never encountered breakage or any other defect in these transmission agents.

WHILE on a recent joint run of the Brazil and Greencastle (Ind.) motorcycle clubs to Clayton, the riders were entertained at a dinner by C. A. Edmondson, a dealer of Clayton.

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Heavy Fines Imposed in Coaster Brake Suit

Corporations and Individuals Involved in Government Action Are Subjected to Fines Aggregating $81,500 for Violation of the Sherman Anti-trust Law—Admitted Operation of Combine But Denied Intent to Defraud or to Restrain Trade.

ROCHESTER, N. Y., May 27.—The six corporation defendants in the case of the United States against the New Departure Coaster Brake Co. and others entered a plea of guilty this morning to the indictments charging them with violation of the Sherman anti-trust laws. The change of plea came unexpectedly after a conference of more than four hours between Federal Judge John R. Hazel, United States District Attorney John Lord O'Brian and Attorney Daniel J. Kenefick, and during that time a decree was prepared and entered by Mr. O'Brian and signed by Judge Hazel.

When the case of the government against the eighteen individual defendants was called and moved for trial, Attorney Kenefick changed the plea from not guilty to guilty for the following: F. R. Huntington, New York City; A. F. Rockwell, Bristol, Conn.; Dewitt Page, Brooklyn; W. A. Graham, Brooklyn; Charles Glover, New Britain, Conn.; C. A. Earl, New Britain, Conn.; R. D. Webster.

ROCHESTER, N. Y., May 27.—At a session of Federal Court tonight Judge John M. Hazel imposed a fine of $81,500 on the coaster brake corporations and individual defendants. The imposition of the fine terminated a famous case. It was the largest fine in the aggregate ever imposed in the western New York district of Federal Court.

Attorney Kenefick admitted for the defendants that the association had been formed, but said that it was with no intention of violating the law. He said that the defendant firms denied all allegations, either direct or indirect, which referred to the licensing of firms to use the basic patents. He said that the New Departure company had given bona fide licenses to other firms.

District Attorney John Lord O'Brian pointed out to the judge that the defendants admitted the formation of a combination, and that they admitted controlling 85 per cent. of the bicycle and motorcycle parts trade. He said the government was entitled to a decree dissolving the association and making null and void all written and unwritten agreements between the defendants.

Mr. Kenefick answered for the individual defendants when the criminal prosecution of the individuals was moved by Attorney O'Brian. Three of the defendants pleaded nole contendre. They are Edward E. Jackson, Jr., New Britain, Conn.; G. P. Moore, Chicago, and C. F. Treadway, Bristol, Conn. Their claim is that they had nothing to do with the affairs of their alleged companies.

The fines imposed follow: Companies—New Departure Manufacturing Company, Bristol, Conn., $10,000; Corbin Screw Corporation, New Britain, Conn., $10,000; Eclipse Machine Company, Elmira, N. Y., $10,000; Aurora Automatic Machinery Company, Chicago, $2,000; Miami Cycle and Manufacturing Company, Middletown, Ohio, $10,000; Buffalo Metal Goods Company, Buffalo, $2,000. Individuals—Albert F. Rockwell, $5,000; Edward E. Jackson, Jr., $3,500; Frederick R. Huntington, $5,000; Dewitt Page, $5,000; Charles F. Treadway, $1,000; William A. Graham, $2,000; Gates P. Moore, $1,000; Charles Glover, $4,000; Clarence A. Earl, $4,000; Kelly R. Jacoby, $4,000; Ralph D. Webster, $3,000, and Emmet M. Jackson, suspended sentence.

The companies and individuals in the case were: The New Departure Manufacturing Company, the Miami Cycle and Manufacturing Company, the Corbin Screw Corporation, the Aurora Automatic Machinery Company, the Eclipse Machine Company, Buffalo Metal Goods Company, Edward E. Jackson, Jr., F. R. Huntington, A. F. Rockwell, Dewitt Page, C. T. Treadway, W. A. Graham, G. P. Moore, Charles Glover, C. A. Earl, D. L. Whittier, R. D. Webster, L. E. Whittier, Simon Florsheim, J. D. Jurloy, K. R. Jacoby, J. P. Druillard, E. M. Jackson and F. C. Atherton.

The following decree was agreed to by both defendants and the government, and was signed by Judge Hazel:

"That the combination and association entered into by the defendants herein in or about the month of July, 1908, in relation to the manufacture, sale and shipment in interstate and foreign commerce of bicycle and motorcycle coaster brakes and each and all of the constitutional parts of the mechanism thereof, front and rear hubs, sprokets, and built-up wheels, constituted and is a combination in restraint of trade and an attempt to monopolize such trade in the several states and with foreign nations in violation of Section 1 of said trust act, and said combination and association is hereby declared illegal and void, and each and all of said defendants are hereby jointly and severally perpetually enjoined, restrained and forbidden from further engaging in or attempting to carry out in any respect the affairs and purposes of said combination and association."

The decree this morning does not prohibit the New Departure company from licensing other firms to use its patents. Former Judge Daniel J. Kenefick, who appeared for the defendants, said that they did admit forming an association, but denied that it was with the intention of violating the law. He also denied all allegations which referred to the licensing of firms to use the basic patent. The granting of licenses was the point the defendants hoped to gain in the action and, according to the ruling today, this may contine so long as it is between individuals and not through the channels of any combination.

John Lord O'Brian, who conducted the case for the government, was careful to point out that the decree agreed upon today does not hinder in any way the prosecution of criminal suits against the individual defendants.

BUFFALO, N. Y., May 27.—The civil suit against the so-called "Coaster Brake Trust" was settled last week by the voluntary dissolution of the companies forming the alleged combination. The individuals indicted requested that the indictments be quashed. This United States Attorney John Lord O'Brian declined to do, and the arraignment at Rochester today followed.

A SUNDAY run to Lamoore was held on May 18 by the Madera (Cal.) M. C.

Kirk Becomes Thor Sales Manager

CHICAGO, May 25.—After twenty years of consistent activity on the staff of the Excelsior Motor, Mfg. and Supply Co., during which he advanced from a salesman to sales manager, H. N. Kirk has resigned and will occupy a similar position in the Thor organization after he has enjoyed a brief rest. It is indicative of Mr. Kirk's wholesome policy and the broad attitude of the Excelsior company that the change is attended by mutual good feeling, and that the genial booster will carry with him to his new post the best wishes of his former associates.

With Mr. Kirk at the head of its sales organization the Aurora Automatic Machinery Company plans to devote more attention to Thor interests and to provide for expansion along broader lines than in the past. The company is engaged in the manufacture of pneumatic tools as well as motorcycles, and the heavy demands made upon both its mechanical and executive departments have not permitted of such concentration upon the sturdy Thor two-wheeler as will now be possible.

Mr. Kirk was at one time the only salesman for the Excelsior, but as the company developed he advanced to the position of manager of sales, holding this title throughout the changes which finally brought the business into the hands of Ignatz Schwinn. His friends and acquaintances in trade circles are legion.

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Confidence!

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The Eclipse Perfection Multiple Disc Brake is stronger, proportionately, than the most powerful automobile brake ever made.

It has a braking surface of more than 100 square inches. That means for every three and a half pounds weight there is one square inch of braking surface.

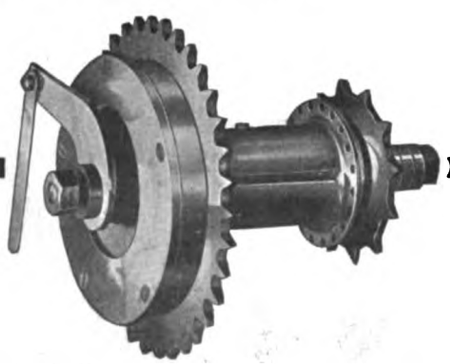
THE MOST POWERFUL AUTOMOBILE BRAKE MADE MUST WITHSTAND 9½ pounds weight to the SQUARE INCH.

For every use to which a brake may be put, side-car, tandem and solo riding, on the steepest gradients, the ECLIPSE BRAKE works with unfailing accuracy and immediacy. Its ball-bearing construction, combined with its ideal lubrication system, makes it practically indestructible.

Riders—ask your dealer to show you the perfect action of the Eclipse. He'll be **proud** to show it to you.

Eclipse Machine Company

Elmira N. Y.



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MOTORCYCLE ILLUSTRATED

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PAID CIRCULATION THIS ISSUE, 13,825 COPIES.

IMPORTANT.

OWING to its large circulation, it requires two full days of 24 hours each, after the last form has closed, to print, bind and mail a full edition of MOTORCYCLE ILLUSTRATED. In view also of the fact that this publication is read in more than 2,400 different cities, towns and villages in the United States, its wide distribution demands that each issue be placed in the mails not later than noon every other Thursday, the date of publication. In order to make the mails at this time, forms must close not later than 6 p. m. Tuesday, and advertising copy cannot, therefore, be handled if received later than Tuesday morning.

RECEIPT OF TEXT MATTER.

This applies also to text matter. Photographs should reach us not later than Monday morning preceding each date of issue. They will be given better attention if reaching us the Saturday preceding.

CORRESPONDENCE.

MOTORCYCLE ILLUSTRATED requires correspondence and subscription agents in many towns where the paper is not already so represented; we pay a liberal commission to subscription agents, and the best space rates for text-matter, drawings and photographs.

PHOTOGRAPHS.

Drawings, photographs and manuscript not suitable for publication will be returned if sufficient stamps are enclosed for the purpose. In every case, photographs should be plainly marked, so that they may be properly identified.

TITLES FOR PHOTOGRAPHS.

WITH the touring and racing season at hand again photographs are deluging the Editor's desk and it becomes necessary to call special attention to the paragraph above relative to such contributions. Every mail brings a number of photographs with nothing to identify them but the postmark on the envelope, and for this reason it is impossible to use them no matter how striking they may be. Nor can the Editor be expected to return them.

The result is as unsatisfactory in this office as it must be to the contributor, for the pictures are wasted. Mark every photo clearly on the back, give your address and state whether the views are to be returned. Do not mark the face of the picture in any way. The Editor appreciates your display of interest and aims to co-operate with you, but he is bucking a prohibitive handicap unless you let him know of your whereabouts.

THE F. A. M. AND THE BOARD TRACKS.

TO all appearances, the F. A. M.-Board Track situation is rapidly approaching a crisis. It is more than probable that this season will witness either a readjustment of the relations now existing between the Federation and the board track owners or, on the other hand, possibly the end of the present alliance. Already one board track owner, whose F. A. M. affiliations had heretofore been of the involuntary sort, has decided to attempt a breaking away from the motorcycle sport-governing body. Neither his action nor his attitude are of themselves of very great importance, although the situation at Brighton and Philadelphia may be worth a study as possibly indicating the development of similar conditions in other board track centers.

THE QUESTION AT ISSUE VERSUS PERSONAL DIFFERENCES.

IT is not so much a question whether the board track owners are desirous of continuing their alliance with the F. A. M. as whether the Federation will see fit to continue the present arrangement with the board track people. Whatever the malcontents have to say on this score, the motordrome proprietors need the F. A. M. more than the latter organization requires the revenue secured from board track franchises and sanctions. The Brighton episode is more of a personal matter than anything else, and does not involve any fundamental principles in the relations of the Federation with the manager of the board track. The latter has simply seen fit to take advantage of a difference of opinion with the Chairman of the Competition Committee. Chairman Thornley would enforce the rule providing that contracts with professional racing men should plainly state that all competitions are to be conducted under the rules and regulations of the Federation of American Motorcyclists.

There is nothing arbitrary in this insistence on the part of the Competition Committee Chairman, although the opposition claims that his general attitude has been distasteful. However, control of any kind is seldom acceptable to those who are to be controlled. Arrangements of mutual advantage are seldom possible without concessions on both sides, and the fact that the Beach track gentlemen are unwilling to make these concessions is largely responsible for their determination to "go it alone."

BOARD TRACK OWNERS NEED HELP OF THE F. A. M.

THIS situation, however, cannot continue indefinitely. As above intimated, the "insurgents" must not exaggerate the significance of their insurgency. They may think it quite ridiculous for anyone to contend that they cannot get along without at least the moral assistance of the national body. Their rebellion, if persisted in long enough, will go a long way towards demonstrating the truth of this claim. In the first place, they will find that the beneficent control exercised by the F. A. M. over the riders is a very important factor and most helpful to every one having to handle motorcycle competitors. They may also have occasion to learn, as they should already know, that the fact that a large national body is regulating the sport has helped not a little to make that sport possible, despite a number of unfortunate though unavoidable accidents. Should the F. A. M. ever see fit to antagonize board track racing, it will promptly cease to be possible. Without the control and regulation of an organization which is interested in something more than the proceeds, board track racing would soon become the target of legislative bodies in all parts of the country.

WAYS IN WHICH THE FEDERATION IS IN POSITION TO HELP.

DESPITE all that has occurred heretofore, the F. A. M. is best qualified to try to make board track racing safe. Not because it is the F. A. M. nor that its officials know just what ought to be done, but rather for the reason that the Federation represents an element whose point of view is somewhat broader than that of the man who is constantly watching the gate receipts. The latter, if left to himself, and with all due respect for some of those who are interested in the business, would soon spoil a good thing. Control by the F. A. M. may be distasteful to the board track people, but the wise ones among them realize that it's just what they need, and with the right kind of co-operation all around, it may be, as it should be, possible to solve the problem in such a way as to satisfy the widely divergent requirements of the organization, the board track owners, the riders, and the general public.

CO-OPERATION NECESSARY TO SAVE THE SITUATION.

IN sum and substance, the F. A. M. is concerned, not at all with the fact whether the board track owners want to continue their alliance with the organization, but whether they are willing and able to make board track racing so reasonably safe as to justify the Federation's assuming any of the responsibility. We trust that all the motordrome owners will soon come to regard the situation in that light. If not, it is our opinion that the Federation will more than welcome the opportunity to let them work out their own destruction.

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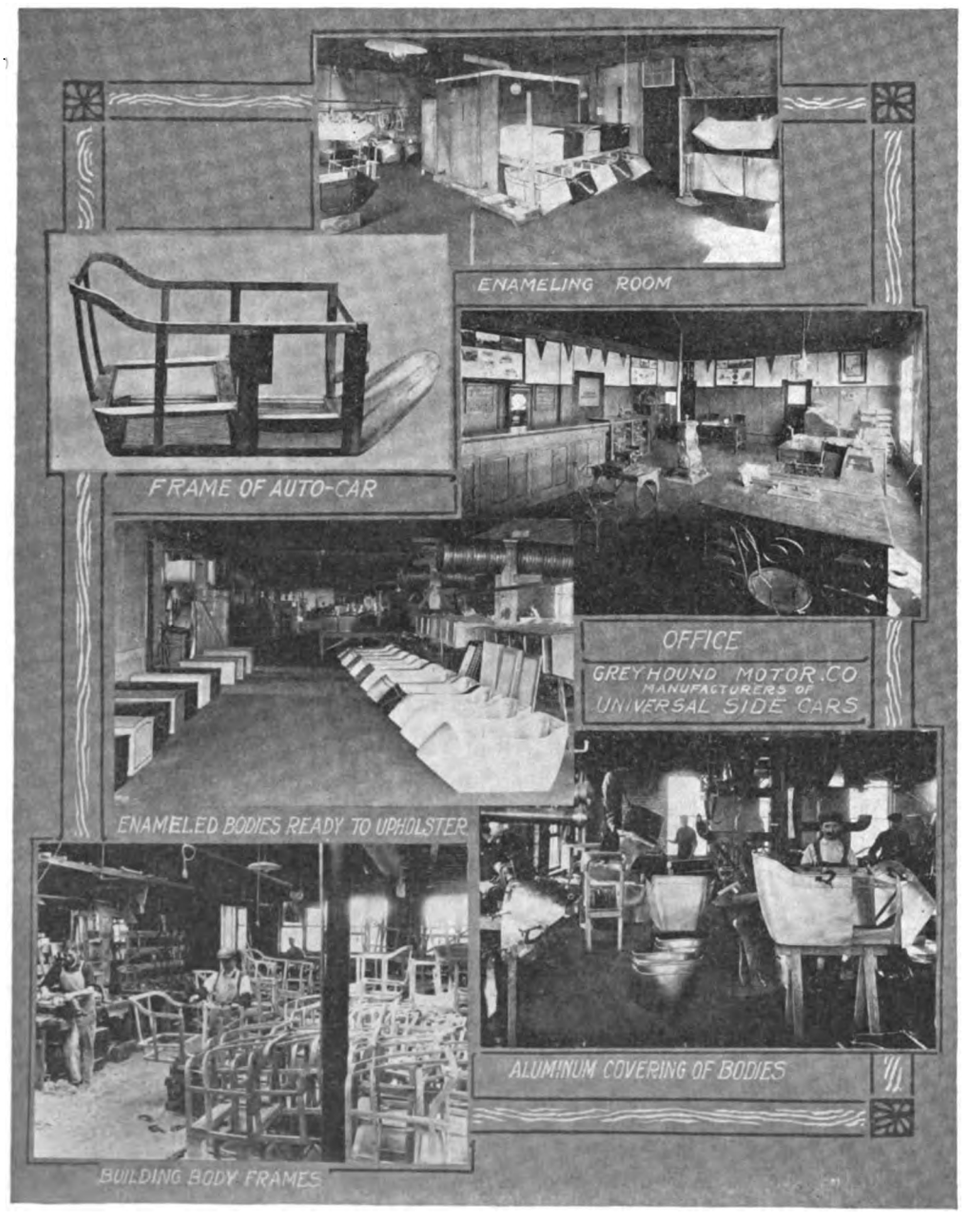
A Glimpse of Greyhound Sidecars in the Making

Eight Busy Departments Are Required in Buffalo Factory and Extreme Care Marks All the Processes from Machining the Steel Castings of the Frame to Upholstering the Roomy "Auto-Car" Bodies.

SINCE the factory of the Greyhound Motor Company, in Buffalo, N. Y., is probably the largest in this country to be devoted exclusively to the manufacture of sidecars considerable interest attaches to the arrangement of the various departments and the processes by which the comfortable third-wheelers are made ready for the rider. As is generally known, the Greyhound firm has had fourteen years' experience in the manufacture of motorcycles, and thus it is in a position to gauge the requirements of riders. In addition it has been fortunate in obtaining some of the ablest designers and mechanics in the industry and these manufacturing advantages are reflected in its products.

The Greyhound factory embodies eight departments, devoted to machining, brazing, enameling, body-building, upholstering, assembling, crating and shipping, and is very well equipped. Besides having ample machinery to turn out a perfect sidecar the company makes all its own tools, patterns and dies. In the first department named all steel castings from the foundry are placed in jigs and machined. Then the material passes to the brazing room where the frames are assembled from the machined castings and seamless steel tubing. When all the joints have been drilled and pinned they are brazed, special attention being given to this feature of the work.

After being brazed the frames are passed along to the filing department where they are carefully cleaned and smoothed. Then they go to the enameling room where the entire frame is sprayed with enamel, several coats being given. After each coat the frame is baked in an oven at 200 degrees for two hours.



The "Auto-Car" bodies, made of aluminum over ash frames, are sprayed with enamel and baked like the chassis, after which the finishing coats and the trimming are put on with a brush. Finally the enameled bodies go to the upholstering department where they are upholstered with the highest grade of imitation leather over curled hair. At the same time a floor covering of linoleum is laid. All Universal sidecars, regardless of price, are made with the same attention to detail and the same consideration for quality in both material and workmanship. The "Auto-Car" model of the Universal sidecar has the body built up of sheet aluminum over an ash frame, this work being done by coppersmiths, the highest paid men in the sidecar industry. By this method of construction the sidecar is given maximum strength and rigidity with minimum weight.

CARBO-LIGHT ACTIVITY

OWING to the rapidly increasing demand for Carbo-Light tanks the Carbo-Light Sales Company, of Anderson, Ind., has found it necessary to open a foreign sales office in New York City. Carbo-Light tanks are finding a ready market abroad and goods are now being shipped to practically every foreign country. Many agencies have been established in European countries and others are being negotiated for.

A. M. Kupfer, distributor of Henderson motorcycles on the Pacific Coast, has contracted for 2,500 Carbo-Light tanks and will act as distributor for them in coast territory. The Kupfer company has large stores in San Francisco, Los Angeles and San Diego and has 65 sub-agencies along the coast. The firm is carrying on a big motorcycle business and is prepared to handle its Carbo-Light sales on the same broad basis. Mr. Kupfer has a large supply of tanks at each of his stores so that prompt shipments can be made to Western buyers.

UNITED STATES TIRE ACTIVITY

SEVERAL of the sixteen new buildings contemplated as additions to the United States Tire Company's Detroit plant have been completed and are now being utilized. When all extensions are completed more than 1,000,000 feet of floor space will have been added. A recent statement made by Samuel P. Colt, president of the company, is to the effect that the company's sales for the first three months of this year show an increase of about forty per cent. over the corresponding period of last year.

TWO TIME-SAVERS

THE EASTON CYCLE COMPANY, 308 Ferry street, agents for the Harley-Davidson in Easton, Pa., report the sales of twelve 1913 models. Robert H. Boyer, a rural mail carrier of that city, is using a Harley-Davidson this season and a machine was also sold to the principal of the Jones business school.

EDWIN PICK, of West Bend, Wis., reports the loss of his 1912 Harley-Davidson motorcycle. The motor number is 6583.

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BIG MEET FOR BENNINGS

Combination Automobile and Motorcycle Program Promises Keen Competition for Washington Enthusiasts on July 4

WASHINGTON, D. C.—The announcement of the program for the July Fourth race meet of the National Capital Motorcycle Club at Bennings, has created a considerable stir in local automobile and motorcyle circles. The prizes are larger than any heretofore offered in this vicinity, and the races have been so planned as to allow the equal distribution of awards among the various classes of machines, precluding any one individual carrying off most of the prizes. Entry blanks for the motorcycle events can be obtained from any motorcycle dealer. At a recent meeting of the club a tentative list of officials was selected for the race meet, subject to the approval of the American Automobile Association. The list of officials includes Chas. H. Cross, referee; Howard Fiske, starter; William Ullman, H. E. Duckstein and Harry Ward, judges. T. O. Wansleben, local F. A. M. representative, will referee the motorcycle races with W. F. Throop as clerk of the course, and A. Hutterly and E. C. Varela, as timers.

AN EFFECTIVE HORN

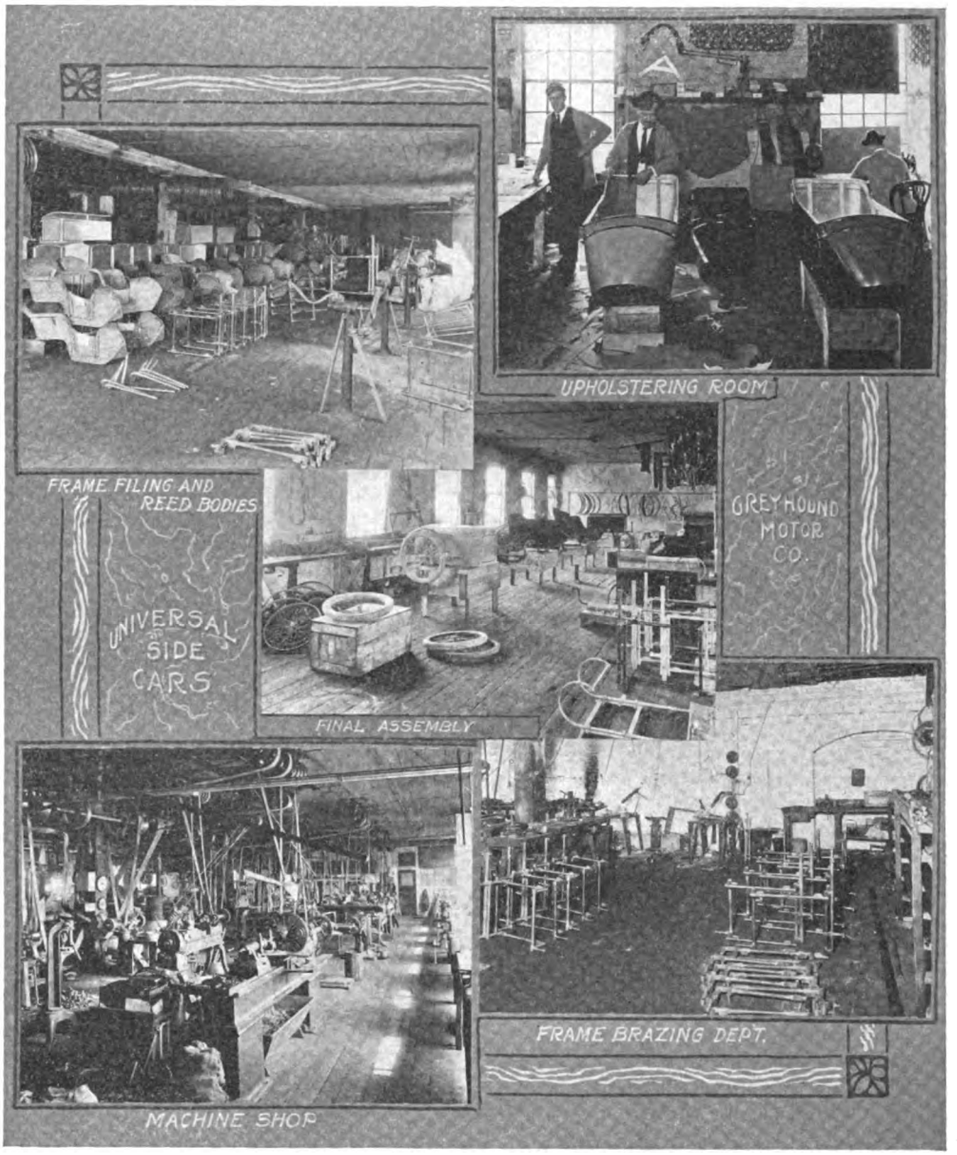
A RAPID increase in the demand for the Trinity Chimes motorcycle exhaust horn, produced by the Coming Mfg. Co., Railway Exchange, Chicago, proves beyond question that the device is living up to the claims of its makers. For the last month the company has been shipping the horns on an average of 1,000 a week. J. Lesselbaum, formerly of New York City and a member of the 1912 racing squad at Brighton Beach, is now sales manager for the Coming company and is showing a steady increase in business.

It is stated that the firm is now making a new valve for its Trinity Chimes horn. This valve obviates the necessity for cutting the exhaust pipe in two and has given excellent results under all kinds of riding conditions. The Trinity Chimes horn is a four-tone instrument, operated by a three-way valve. The horn proper is made up of square brass tubes of different lengths and slotted after the fashion of organ pipes. When the four tubes are blown as one they produce a far-reaching tone that warns without being offensive. Descriptive literature will be sent on request.

GREETINGS, "MAGGIE."

"WE'RE a typical busy American crowd in Buffalo," writes the Ericsson Manufacturing Company, manufacturer of the Berling magneto and other electrical and hardware specialties, "and like most folks who are in a hurry we use short-cuts in conversation as well as in methods. For example, we decided some time ago that the word 'magneto' was unnecessarily long, so our staff has acquired the habit of referring to our automobile ignition devices as 'Mags.' It was quite natural, therefore, when we developed our motorcycle magneto that we should call it 'Maggie.' The diminutive of Mag is Maggie, isn't it? At any rate, that's the way we figure it, and the nickname seems quite popular in our factory.

"As for 'Maggie' herself, the boys say she's trim and neat and a fine looker. And when it comes to 'sparking'—well, there may be other Maggies that are not so slow about it, but they certainly can't beat our Maggie. We are very well satisfied with her."



Further Views Showing the Manufacture of Universal Sidecars. (See Article on Preceding Page.)

YALE USERS IN THE METROPOLIS

FROM the headquarters of the Consolidated Manufacturing Company comes the following announcement showing the divers uses to which the Yale motorcycle is being put in New York City. Charles Lehmen, a real estate salesman, takes his prospective purchasers about in a sidecar which he has attached to his Yale twin. Charles Sackett, an insurance adjuster, uses a Yale to cover his long trips. Other New Yorkers using Yales in their daily work, as reported by the Consolidated company, are: Murry Cohan, a collector; J. J. Mathews, steamship booking agent; John Gallagher and A. L. Washburn, contractors; The Washington Electric Co.; Phillipson & Taussig, power printers; H. R. Kenyon, architect; W. Driscoll, metal goods dealer; S. O'Brien, automobile repairer, and Arthur E. Fisk, a map expert.

BOSCH IGNITION ABROAD

REPORTS on the Circuito del Po, a motorcycle event of national importance that was staged in Italy, April 26-27 last, show that 42 of the 57 starters used Bosch magnetos and that nine of the 14 finishers were Bosch-equipped. Six of those who completed the trial also depended upon Bosch spark plugs to carry them through. The winning team, riding English Triumphs, used both magneto and plugs of Bosch manufacture. The race was over a rough and winding course of 640 miles and considerable stormy weather was encountered.

DESCRIBING ACCESSORY LINE.

ANNOUNCEMENT is made by the Chicago Cycle Supply Company, of 22 West Lake street, Chicago, that its new catalog is now ready for distribution. The Chicago company handles a complete line of motorcycle accessories as well as supplies for the rider. The catalog contains 225 pages descriptive of the extensive line and is featured by its many illustrations.

VOTE FOR SUNDAY RACES

A MOVEMENT started by the Reform League, of Denver, to prohibit Sunday afternoon motorcycle racing was brought to a general vote at the last city election and the advocates of racing outnumbered its opponents.

A MOTORCYCLE trip from the Pacific to the Atlantic coast of Canada is being made by F. Spalding, of Fernia, B. C.

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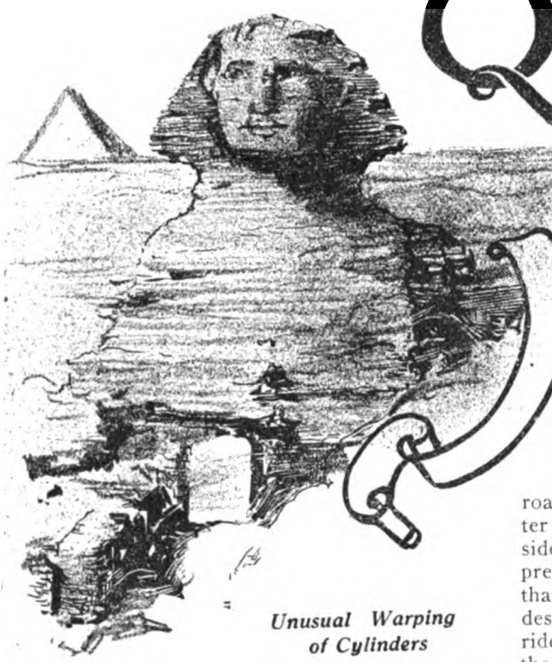
Questions & Answers



Unusual Warping of Cylinders

L. C. THOMSON.—Your discovery that your front and rear cylinders are warped differently and that you will have to replace one of them is a bit unusual but by no means unknown to engineering. If you were to measure any number of used cylinders you would see that they were by no means of the same shape as when first used by the riders. The temperature of an exploding mixture is around 1,600 degrees Centigrade, and when the exhaust is passing out, its temperature is reduced to about 400 degrees Centigrade, so that the cylinder is sometimes expanding and contracting under a temperature range of 1,200 degrees C (2,160 degrees Fahrenheit). After a cylinder has been doing this for some months, it takes a sort of *set* or warps, and unless badly overheated, retains this warp as long as it is run. A pair of cylinders which have been cast in the same lot and run together in a twin motor will take an approximately similar warp, which in the huge majority of cases has no effect on the running of the motor.

But cylinders cast a year apart are naturally not of the same composition of cast iron. In your case, the rear one has been used and has set, while the front one has not been set, and is in all probability of an entirely different grade of iron. The expansion of this new cylinder is thus different from that of the other, and running, is as you say, not satisfactory. Are you sure that the bore of both cylinders is the same? If not, have them made equal. Otherwise, we are of the same advice as the engine makers: get a matched pair of cylinders.

Keep on the Left Side

LEO ZEITHENBERG.—You are correct, driving on the left side of the road will put less strain on the motorcycle and sidecar both. When the right side is adhered to, the machine naturally leans outward, away from the vertical and toward the sidecar, so that most of the load is thrown on the car, tire wear is uneven, and strains are put on the connections and frame. On the left side of the road, the motorcycle can generally track in a relatively level portion, leaving the sidecar wheel to ride high on the camber but having the car frame carry only the passenger and its own weight as a load. But keeping to the left is wrong from a rule-of-the-road viewpoint, so that it will be necessary to cross over when oncoming traffic is seen approaching. With our rule of "keep to the right" and all kinds of road-cambers, it would perhaps seem better that sidecars should be fitted to the left side of the machine instead of the right as at present. There are, however, other reasons that point to the present arrangement as more desirable; the car is next the sidewalk, the rider is passed by oncoming traffic and not the passenger, etc.

Grinding the Valves

ARTHUR SANDERSON.—Even the motorcyclist of limited experience can grind in the valves of his motor satisfactorily if he follows simple instructions and takes sufficient time. Use fine emery flour or one of the special valve-grinding compounds, and place a rag or cotton waste between the valve chamber and cylinder to prevent the entrance of emery into the latter. It is well to use a round-handled screwdriver which may be turned to and fro between the palms of the hands in the grinding operation. Exert a slight downward pressure but strive to have it uniform, so that an even grinding action will be obtained. Remove the valve from time to time and wipe the face and seat clean so that progress may be noted. When the valve is supposed to be perfectly tight it may be tested with gasoline. If the liquid leaks through it is evident that further grinding is needed. Reaming of the valve is resorted to only when the seat or face is deeply scored, and it is not likely that this condition exists in your machine which is comparatively new. We believe the trouble will be remedied by careful grinding.

Cleaning the Belt

TOURIST.—Instructions for keeping the belt in condition have appeared in these columns from time to time, and you are correct in believing that we have recommended pure neat's-foot oil as a dressing. There are several good belt dressings on the market, but in lieu of these it is always safe to use the neat's-foot. At any rate, be certain that you are not using some preparation that is harmful to the belt. Never allow the belt to become dry. In that condition it may quickly be ruined. Apply a good dressing frequently, and avoid the use of water, gasoline or castor oil in cleaning the belt.

It is a good plan to examine the belt after each day's riding. You will often find small stones and bits of road material imbedded in its face and these should be cleaned away carefully. For this operation a dull knife blade may be used. Do not allow mud to become caked on the belt; wipe all such accumulations off after each trip and then apply the dressing before the belt has had a chance to dry.

Reviving Weak Batteries

HEMPSTEAD.—Dry cells that have been used for some time can be temporarily strengthened by removing the cover, piercing the zinc cup in a number of places and placing the cell in a solution of salammoniac. It should be allowed to remain until it has absorbed all the solution possible. Water inserted through a hole in the pitch seal will frequently act as a rejuvenator for a weak cell, as will also a solution of table salt and water. It is obvious that as soon as a cell starts to give trouble it should be replaced by a new one at the earliest possible moment, but the methods above referred to are often found helpful by battery users whose cells give trouble at a time when others are not available.

We know of no reason why you should not use an acetylene tank on your motorcycle and an electric lighting outfit on your sidecar. Many riders are using both systems. They are thus insured against an emergency and when it is necessary to detach the sidecar from the machine no thought need be given to the lighting apparatus.

Massachusetts Regulations

NEW ENGLANDER.—In Massachusetts a registration fee of $2 is exacted. A brass plate is supplied for attaching to the rear of the saddle, and for night riding a white headlight and red tail light are required. Local ordinances may be encountered here and there, but they must have been approved by the State authorities in order to be effective. The driving license is procured from the State Highway Commission. Speed limits are referred to as "reasonable and proper;" 20 miles may be attained in the country, 15 miles in suburban sections and 8 miles in cities. Penalties for violations of the law range from $10 to $25 for the first offense to $50 and $100 for the third and subsequent violations. It is also worthy of note that the use of the muffler cut-out is prohibited. Non-resident motorcyclists are exempt from registration for ten days if registered in their home state. This data is based on the latest available reports from Massachusetts and it is unlikely that changes have been made recently.

Too High a Level

F. J. HULETT.—Lower the level of the gasoline in the float chamber until the fuel is about 1/32 of an inch below the jet opening. This will probably fix up your trouble. Examine the float for punctures, etc. See the *Motorcycle Manual*, page 24. Don't operate the grips suddenly; take it easy. You can "choke" almost any motor by a sudden opening of the throttle. Try operating thus before altering the fuel level.

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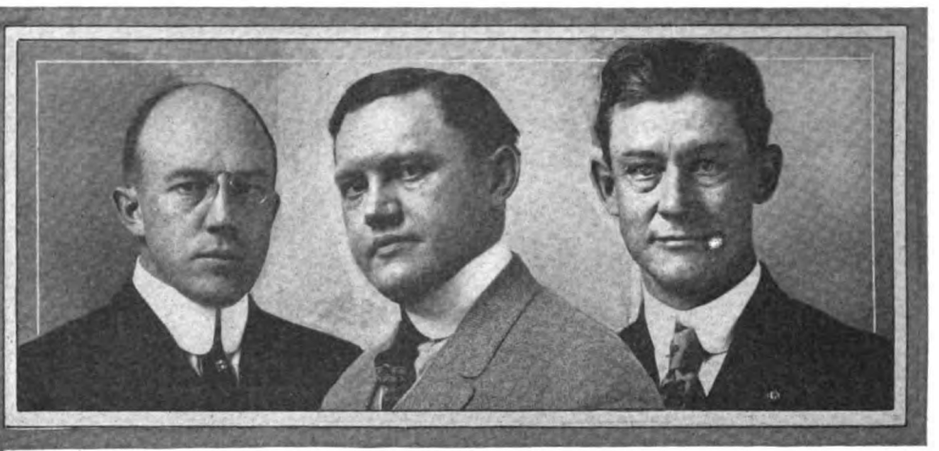


Left to Right: J. C. Manternach, S. W. Hartley, F. R. Wilhelmy and R. S. Bryant.

Manternach Is Standard Welding Head

Popular Booster in Steel Tube Industry Rises from Sales Manager of Hustling Cleveland Company to General Manager.

ONE of the most interesting trade changes reported of late is the appointment of J. C. Manternach, of 1472 West Clifton boulevard, Cleveland, Ohio, to the position of general manager of The Standard Welding Company, of Cleveland. Mr. Manternach succeeds Tracy W. Guthrie, resigned, who was formerly president of the Republic Iron and Steel Company, of Youngstown, Ohio.

Mr. Manternach was appointed sales manager of the Standard Welding Company by the late W. S. Gorton in April, 1910, and his present advancement is the result of his efficient and untiring efforts in the behalf of that company.

Mr. Manternach has been identified with the American steel-tube industry practically from its infancy. He began with the Pope Manufacturing Company, Hartford, Conn., in 1897, and later joined the forces of the Shelby Steel Tube Company and the National Tube Company, a subsidiary of the United States Steel Corporation. With the latter organization his promotion was so markedly rapid that it brought him to the attention of many new concerns then entering the field, among them the Standard Welding Company. Mr. Manternach, still young in years, is representative of a successful class of present-day business-men who have won fame and fortune by their experience in the school of hard-knocks. He is widely known among those connected with bicycle, motorcycle, automobile and steel-tube industries.

Mr. Manternach announces the appointment of S. W. Hartley to the position of sales manager. Mr. Hartley has been assistant sales manager of the company over two years and has been prominently identified with the engineering end of the motor-car industry from its beginning in the United States. Mr. Hartley has been associated with the Peerless Company of Cleveland, the Garford Company of Elyria and the A. O. Smith Company of Milwaukee. He is a Cornell man, well-known and well-liked throughout the automobile industry.

R. S. Bryant is named as consulting engineer. Mr. Bryant, who can unqualifiedly be called the designer of the first quick-detachable rim in America, has been in the employ of the Standard Welding Company approximately two years. He is the originator of the types of rims now being made and sold by the Standard Welding Company, and the designer of many other styles that have had notable success. He also built and perfected the first specialized machine-tools used for the manufacture of automobile rims, and many of his original designs are still without a peer. In his particular field of endeavor, Mr. Bryant ranks second to none, and is so recognized by all who are familiar with motor-car industry in America. Mr. Bryant was the founder of the Bryant Rim Company, Columbus, Ohio, which was purchased outright by the Diamond Rubber interests several years ago.

C. C. Gressle is made superintendent. Mr. Gressle has held high positions in the factory organization of the Standard Welding Company since its inception some fifteen years ago. F. R. Wilhelmy remains as auditor and credit manager, to which position he has arisen by successive steps through fourteen years of service with the company. H. E. Butcher remains in charge of the tube department.

SPLITDORF BRANCHES

ANOTHER step toward placing the service for Splitdorf electrical ignition devices upon the highest standard of efficiency was taken when O. J. Rohde of the Splitdorf Electrical Co., of New York, opened the Atlanta branch situated at 8 Harris street, corner Peachtree street. This branch was opened on May 15. It is a direct branch with all modern testing apparatus for the company's various electrical ignition outfits. They carry a complete stock of new goods and parts for every outfit they have manufactured.

On June 1, Mr. Rhode will open another branch at 290 Halsey street, Newark, N. J., along the same lines as the one recently opened in Atlanta. In July a similar branch will probably be opened for the Canadian trade with headquarters in Toronto, Ont. With the branches already established and the ones under advisement, the Splitdorf service will be found practically all over the country, where users can secure immediate attention.

ANOTHER CONTRACT FOR HOLLE

AT A recent meeting of the Board of Supervisors in San Francisco, Joseph Holle, "The Bike Doctor," was awarded a contract for twenty Harley-Davidson machines to be used by the police department. The city purchased ten Harley-Davidsons sevens months ago, and the single-trackers have given such a good account of themselves that the officials are desirous of using them to replace some of the horses now in police service.

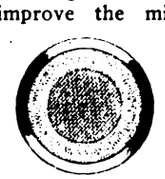
HARLEY-DAVIDSONS IN DETROIT.

TEN "5-35" Harley-Davidsons have been purchased by the Police Department of Detroit, Mich. The department plans to have the ten motorcycles serve thirty policemen, riding 24 hours a day, in three shifts of eight hours each, so that the machines will be put to a severe test.

J. W. LONG, of Bowling Green, Ohio, has taken the agency for the Harley-Davidson in Bowling Green and neighboring towns.

A NEW GAS SAVER

AN ingenious little contrivance intended to improve the mixture and permit of fuel economy is now being manufactured by the Gas Saver Sales Co., United States Rubber Building, Broadway and Fifty-eighth street, New York, and sold under the trade name "Gasosava." It replaces the gasket between the carbureter and intake pipe and embodies a fine screen and a "wick." The former is designed to break up gasoline particles and assist in vaporization, while the wick intercepts any fuel globules that would otherwise enter the intake pipe in liquid or semi-liquid form. The results claimed are marked economy due to thorough vaporization; increased mileage; minimum carbonization and uniform running.



A TOUR of the entire state of Georgia will be made during the summer by twelve members of the Atlanta Motorcycle Club.

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Scientific Production of the Sturdy Yale

How the Big Toledo Factory Has Been Departmentized to Permit of Handling Material at High Speed Without Lowering the Standard of Workmanship—Importance of the Drop-Forging Shop.

IN order to maintain a high standard of manufacturing efficiency without making the cost to the consumer prohibitive leading motorcycle builders are devoting much time to the study of scientific production, and nowhere in this country is the problem receiving more systematic consideration than at the big plant of the Consolidated Mfg. Co., in Toledo, Ohio. How to obtain the best raw material, how to treat it most satisfactorily in the various departments and how to turn the finished machine out of the factory 100 per cent. efficient are question with which the Yale organization has grappled to good effect, and from end to end of the establishment every move counts.

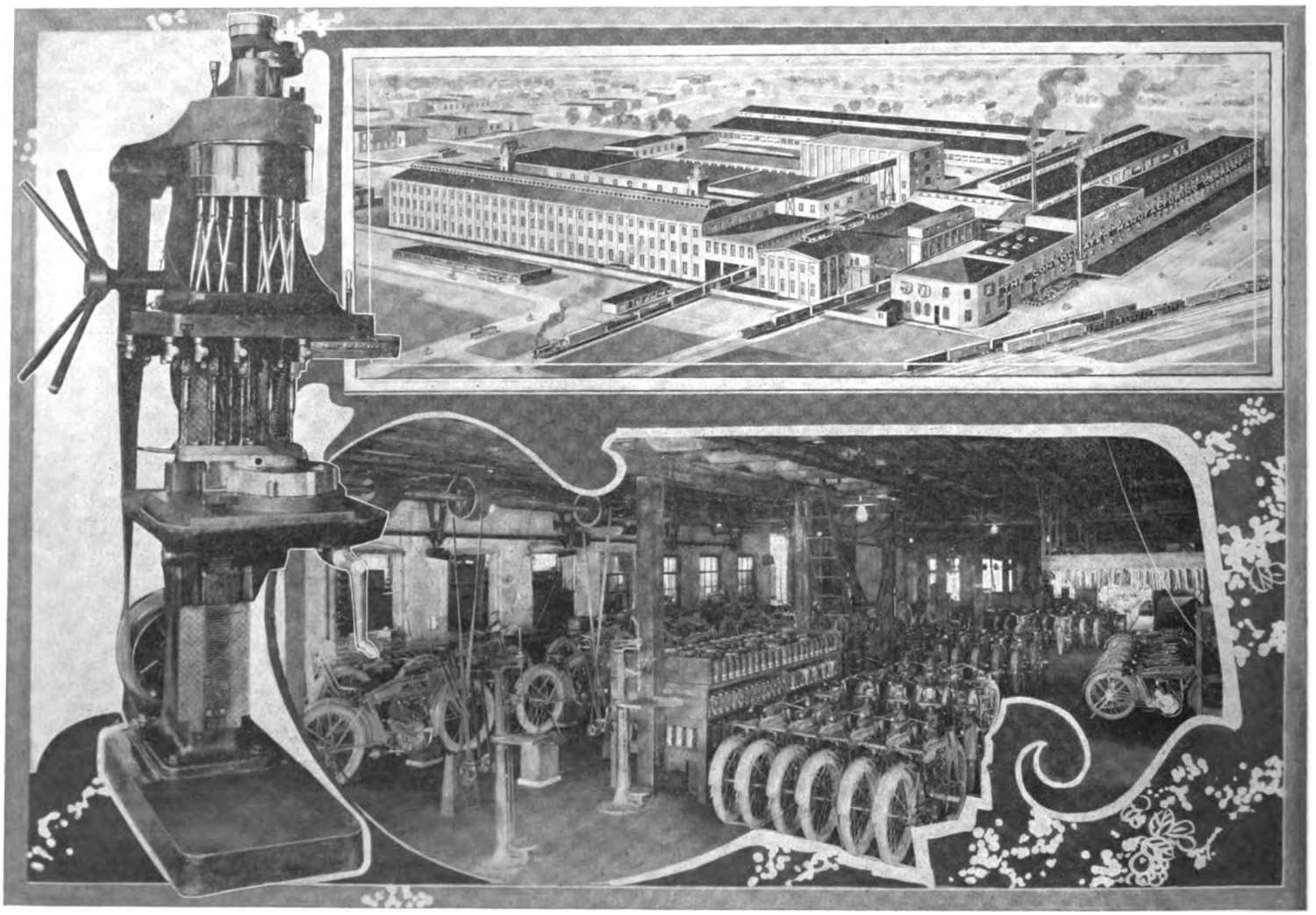
The different departments are so arranged that parts travel the shortest possible distance in going from one process to another, and at no point does a piece of material double on its course. To do this would be to waste time and energy. Machinery of the most up-to-date and effective types is used throughout the factory, so that accuracy and uniformity are assured. This uniformity not only simplifies the assembling of machines but permits of interchangeability of parts. Heald cylinder grinders turn out Yale cylinders with surprising speed and unfailing accuracy, special gear hobbers cut the helical gears for Yale motors with the same precision and automatic machines, geometric thread-cutting machines and many other special devices save time and labor and insure quality products. Multiple spindle drills, for example, do in a minute the work that would require half an hour with ordinary drill presses.

The drop-forging shop at the Yale factory affords an interesting scene. Here the big 3,000-pound hammers beat out the many forgings that go into Yale motorcycles. Heavy bars of steel are sent into this room to come out as forged frame fittings, cranks, valve dogs and other parts. The Consolidated company is the only firm operating its own drop-forging shop at present. With this system it is possible to insure a standard grade of steel and to inspect all the raw material before it is started on its way through the departments.

Cylinders and forgings are all heat-treated. The cylinder castings are first given a rough cut which removes the scale; then they are placed in special furnaces and for six hours subjected to greater heat than is ever developed by the motor when on the road. This heat treatment relieves all strains and stresses in the metal, and causes all distortion that is ever going to take place to become noticeable then and there.

It is interesting in this connection to note that cast-iron has a tendency to change its shape slightly when the scale on the surface is broken. For instance, a casting could be bored and ground with the greatest accuracy and some time later it might be found considerably out of true as a result of the scale having been cut. The Yale method eliminates trouble in this direction, however, for the cylinder casting is given every opportunity to distort before the final cuts are taken and the grinding done.

Heat treatment of frame connections and other parts renders them remarkably tough so that they easily withstand strains that would ordinarily cause a break.



Bird's-Eye View of the Yale Plant; an Impressive Scene in the Assembling Department, and One of the Big Spindle Drills.

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Members of the Indian M. C., of Cincinnati, Ready for First Outing of the Season, Held Recently to Miamitown.

These Are Busy Days for Sacramento Dealers

Nearly Every Agent in the Hustling California City Has a Waiting List of Buyers and Manufacturers Are Rushing Shipments to the Coast—Sacramento M. C. and City Wheelmen Combine.

SACRAMENTO, Cal.—H. Cameron, the local Indian agent, who has been in business for the last seven years, states that he has sold 104 of the 1913 machines, and that he has forty orders to be filled as soon as his next shipment arrives. In addition to lively sales of motorcycles Cameron has found a rushing demand for sidecars, and he is of the opinion that this branch of the business will be a very important one from now on.

L. Dufout, who has charge of the repair shop that is operated in connection with Mr. Cameron's business is an expert who was sent out from the Indian factory. He has placed the repair business on a high standard. Cameron reports that shipments are much more satisfactory this year than they were in 1912.

A PERPETUAL TROPHY

THE Valvaline Oil Co. has offered a "perpetual" trophy, valued at $125, for the rider making the best time between Sacramento and Tahoe, and a number of riders of these cities are tuning up their mounts with a view of taking a chance. The road between Sacramento and Tahoe is in excellent condition and some fast trials are expected.

LANGLEY HAS WAITING LIST

WILLIAM A. LANGLEY, Excelsior agent in Sacramento, states that he has sold all the 1913 models he has been able to obtain and that there are now twenty applicants on his waiting list. Langley has already placed 60 Excelsiors in the city proper. R. Gallaway, who is in charge of Langley's repair shop, is known throughout the state as an able machinist. He has a staff of four men and manages to keep all of them on the jump.

KIMBALL-UPSON SALES

ONE OF the most active firms in southern California is the Kimball-Upson Company, of Sacramento, which has disposed of 100 Pope motorcycles during the last five months. The firm now has a shipment of 60 machines on the way and has placed an order for 90 to be shipped a month hence. During the last six months the Kimball-Upson Company has been making extensions in all directions, and now carries a large line of general sporting goods in addition to motorcycles and accessories.

R. S. Sallender, who is in charge of the motorcycle and bicycle sales department, has found business so lively of late that he has taken on Frank Murray, a well-known local motorcyclist to assist him. Frank Anderson is at the head of the Kimball-Upson repair shop.

SACRAMENTO CLUBS COMBINE

NOT LONG ago the Capital City Wheelmen, a club that has been in existence for twenty years, and the Sacramento Motorcycle Club combined and the organization is now running under the name of the Capital City Motorcycle Club. Well-fitted clubrooms have been obtained and the outlook for the club is exceedingly bright. The membership is 150 at present, and it is believed that another hundred riders will be added in a month or two. For the present the officers of the old Wheelmen's organization are acting, but there is to be an election on June 1. A racing program recently conducted by the club netted $600. At least two other race meets will be staged during the summer. The club will also hold an endurance run to Lake Tahoe and possibly as far south as Los Angeles.

SETTING GOOD EXAMPLE

SACRAMENTO COUNTY was the first in the state to bond itself for the permanent improvement of highways, and the outlook for continued interest in the roads is bright. Not long ago the county approved a heavy bond to permit of connecting all the roads throughout the county with the state highways.

DE LUXE MAKING FRIENDS

PUTZMAN & HOFFMAN, proprietors of a motorcycle establishment which was opened in Sacramento about the first of the year, are making a strong bid for business in their district. They handle the De Luxe and report satisfactory sales. About twenty of these machines are in use in the city and not long ago the Putzman & Hoffman firm was obliged to sell its demonstrator to satisfy a patron who needed his mount at once. R. R. Burton is in charge of the up-to-date repair shop operated by the firm.

THOR AT THE "MOTORAID"

ANOTHER busy Sacramento shop is the "Motoraid," a motorcycle headquarters presided over by F. Middlemiss and Mrs. G. M. Julien. This firm handles the Thor and has sold thirty machines in the last few months. An extensive business in second-hand motorcycles is also carried on, and during the six months just past no less than 150 machines have been disposed of. A registered F. A. M. repair shop is conducted, under the personal direction of Mr. Middlemiss. The firm sells Superior sidecars, made in Los Angeles, and finds a wide demand for them. They have four cars in use at the shop and manage to keep them all busy.

AHEAD OF SHIPMENTS

THE Sacramento Motorcycle Co., a new firm, headed by Cap. Scott and George Buell, is handling the Jefferson with great success. This agency has been doing business for five months and has sold all the machines that could be obtained from the factory. Mr. Buell states that arrangements have been made with the Jefferson manufacturers to ship six machines each week for the remainder of the year. The company gives special attention to repair work, this branch being in charge of Mr. Scott, a well-known rider in Sacramento and vicinity.

CLUB MEMBERSHIP DOUBLED

FIFTEEN riders made up the charter list of the Fond du lac (Wis.) M. C., organized on March 7 last, and the membership has since been doubled. The club has affiliated with the F. A. M. and is looking forward to a lively season. One or two race meets and a series of road runs are carded. The officers: H. A. Shiels, president; Henry Marcoe, vice-president; O. A. Scholl, secretary-treasurer; W. C. Caffery, road captain. The organization has taken rooms at 19-21 East First street.

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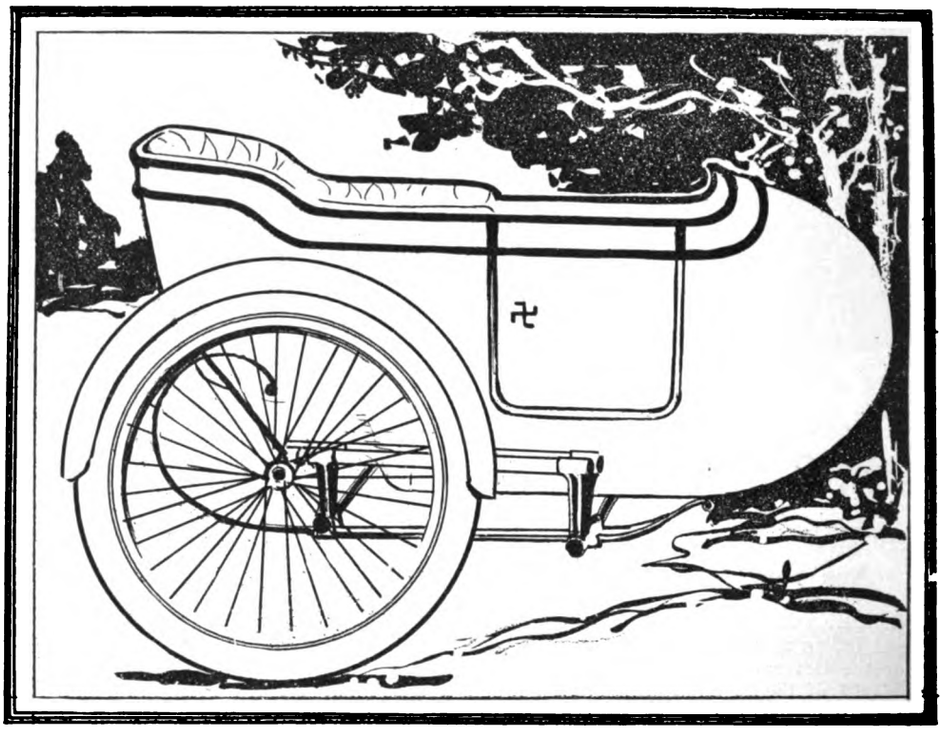
Majestic "Wind-Splitter" An Attractive Model

Worcester Firm Produces Coach-Built Sidecar Body With Genuine Canoe Front, Embodying Advanced Ideas for Both Speed and Comfort—Underslung Chassis and Sprung Upholstery.

DESPITE the fact that it is now turning out reed-body sidecars at the rate of sixty a week the Majestic Mfg. Co., of Worcester, Mass., has found time to market an attractive new model listed as the "Wind-Splitter." As the name implies, this sidecar is built with a sharp-nosed body, and is in reality the first model to be offered in this country with a genuine canoe front. From either side or front view it will be found to follow the much-talked-of canoe lines exactly, thus affording an extremely graceful sweep and at the same time reducing wind resistance to the minimum. It is claimed for the new type that it combines speed and comfort to an unprecedented degree, and there is every reason for believing that these claims will be supported in road service.

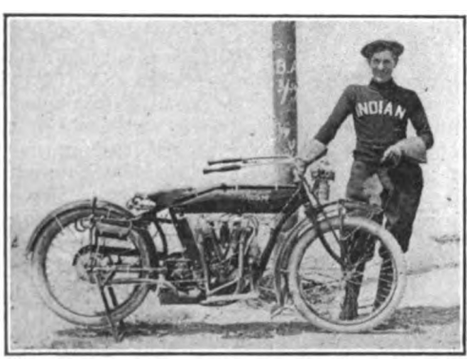
The body is of metal on a wooden frame, and special care has been taken to strengthen the latter wherever it is likely to be subjected to unusual strain. A neat side door permits of easy entrance and egress, and is so constructed that it does not detract from the artistic lines of the sidecar body. The chassis is underslung and heavily reinforced. The upholstering is of the automobile type, being both padded and sprung. Owing to the underslung construction a low center of gravity is obtained and stability and comfort-giving qualities are increased.



The attachments are Majestic drop-forgings, milled, polished, plated and buffed, and the connections permit of quick attachment or detachment. The new Majestic body will be finished in any color specified. The outfit lists at $90, and in view of the fact that the manufacturers found it necessary to expend $3,500 for special tools and machinery to produce it, the price is regarded as reasonable.

CLAFLIN CLIMBS ENSIGN PEAK

LON CLAFLIN, Indian agent in Salt Lake City, Utah, and long recognized as a daring rider, added to his laurels recently when he piloted his two-speed Indian to Ensign Peak, 7,005 feet above sea level. The climb has always been regarded as a difficult one for a person afoot, and motorcyclists have considered it entirely beyond them. The road surface is poor and some sections of the grade are little short of startling. Claflin left Eagles' Gate at 11 o'clock on a Sunday morning, with four men stationed to time him, and in eight minutes he had reached the top, placed his machine on the stand and waved his handkerchief to the timers, indicating that his feat had been successfully accomplished. The timers had accompanied Claflin to the foot of the peak. The altitude of Eagles' Gate is 4,265 feet, and the remainder of the climb, 2,740 feet, is made in two and a half miles.



Claflin on Ensign Peak.

Fred Whittler, the racing star, attempted to ride his machine to Ensign Peak some time ago but sustained several falls and failed to complete the climb. Having once made the ascent Mr. Claflin is convinced that he can do it again and is willing to wager from $100 to $1,000 that he can duplicate his recent performance, riding every foot of the distance. The accompanying picture shows Claflin and his Indian at the peak.

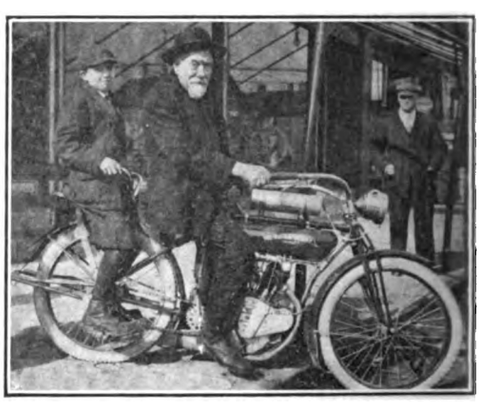
THE MOOREHOUSE FUND

FRIENDS of the late Arthur Moorehouse, the well-known English Indian rider who was killed at Brooklands, have raised a memorial fund of $1,500 which will be held in trust and the income used to maintain a free bed in the Weybridge hospital. The Hendee Manufacturing Company subscribed liberally to this fund, which will be known as the Arthur Moorehouse memorial fund.

MORE GLOBE-GIRDLERS

LESLIE EAGLES and Bruno Pilz, of Wilmette, Ill., have started a motorcycle tour of the world. The boys are nineteen years old. They expect to spend at least a year in their sight-seeing journey.

A NEW Pope agency has been placed with Marion C. Rich, of Herkimer, N. Y. Rich recently received his demonstrator and has already been successful in lining up a number of purchasers.



J. F. KILBANE, the oldest motorcycle rider in Cleveland, and his son, are shown in the accompanying photograph on their twin Merkel. Mr. Kilbane is related to Johnny Kilbane, the ring champion.

MONTANA RIDERS BUSY.

MEMBERS of the Western Montana Motorcycle Club of Missoula, recently made a run through Bitter Root Valley, to Florence. The club has been organized only a short time and a lively interest was evinced in the first run.

JEFFERSON IN NEW YORK

JEFFERSON motorcycles are now being distributed in New York City by the Lowe Motor Supplies Co., 1727 Broadway, and the firm reports that a lively interest is being aroused in this machine among metropolitan riders

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A MOTOR COP'S RECORD

SEVENTY THOUSAND miles on Indians in three years, is the record of Motorcycle Officer William J. Lennon, of the Grand Rapids, Mich., Police Department, who just has been promoted to sergeant. When Lennon was notified of his advancement, he totaled his records and found that his average annual mileage was 23,333, and a year of motorcycle duty, in Grand Rapids, consists of seven months. In the three years, Lennon brought in over 400 offenders, and paid for his machines several times over.

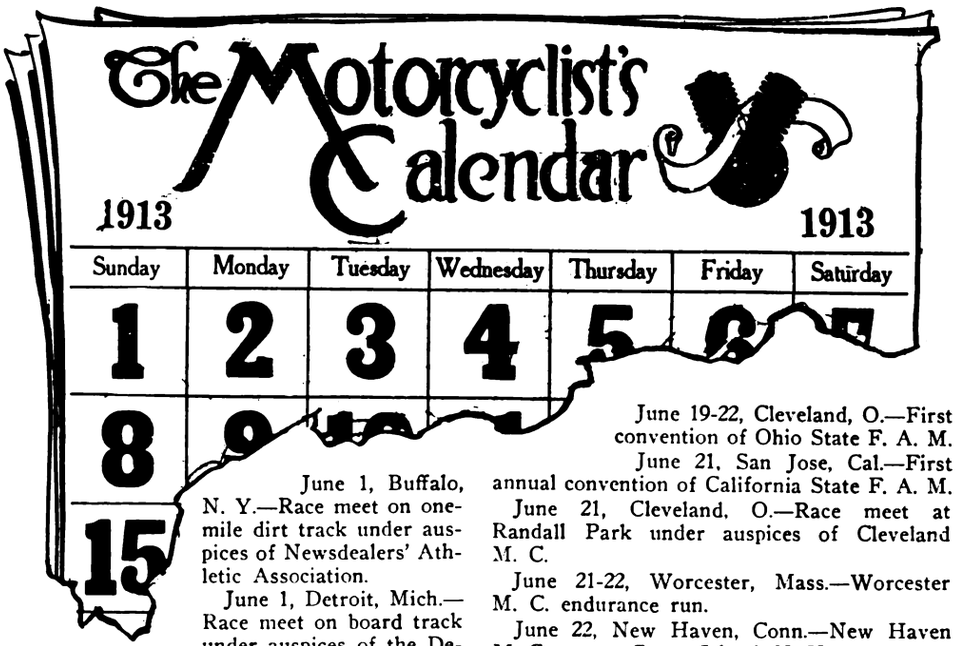
ABERNATHY KIDS ON TOUR

A LATE bulletin from the Indian factory, at Springfield, is to the effect that the famous Abernathy Kids—Louis, 13, and Temple, 9. the latter appearing in the accompanying photograph, sons of Sheriff Jack Abernathy, of Frederick, Okla., Rough Rider and friend of Theodore Roosevelt, left their home on May 25 for New York City, riding Indian motorcycles. This is not the first overland trip for the boys, as they rode to New York on ponies in 1910 to welcome Colonel Roosevelt on his return from the African hunt, and later drove a Brush runabout over the same route.

The trip which they are now making covers about 1,750 miles and they expect to reach New York by June 30, to attend the graduation of their sister. Their itinerary, subject

Temple Abernathy.

to minor changes, is as follows: Frederick, Lawton, Verden, Oklahoma City, El Reno and Enid, Okla.; Newton and Wichita, Kan.; St. Louis, Mo.; Indianapolis, Ind.; Cincinnati, Columbus, Dayton and Zanesville, O.; Wheeling, W. Va.; Cumberland and Frederick, Md; Washington, D. C.; Baltimore, Md.; Wilmington, Del.; Philadelphia, Trenton, Newark, Jersey City and New York City.



June 1, Buffalo, N. Y.—Race meet on one-mile dirt track under auspices of Newsdealers' Athletic Association.

June 1, Detroit, Mich.—Race meet on board track under auspices of the Detroit Motordrome and Amusement Co.

June 1, Cleveland, O.—Race meet on board track under auspices of the Luna Park Amusement Co.

June 1, Chicago, Ill.—Race meet under auspices of Riverview Motordrome and Amusement Co.

June 4, Cleveland, O.—Race meet at Luna Park Motordrome.

June 4, Detroit, Mich.—Race meet at Detroit Motordrome.

June 4, Chicago, Ill.—Race meet at Riverview Motordrome.

June 4-5, Rockford, Ill.—Rockford M. C. race meet.

June 4-6, Isle of Man.—Tourist Trophy races under auspices of English Auto Cycle Union.

June 7, Reading, Pa.—Race meet on one-half-mile dirt track.

June 8, Toledo, O.—Interstate Racing Association race meet.

June 7-8, Cleveland.—Race meets under auspices of Luna Park Motordrome and Amusement Co.

June 7-8, Chicago.—Race meets at Riverview Motordrome.

June 7-8, Detroit, Mich.—Race meets at Detroit Motordrome.

June 8, New Haven, Conn.—New Haven M. C. endurance run.

June 8, Newark, N. J.—New Jersey M. C. run to Tottenville, S. I.

June 9-10, Portland, Ore.—First annual convention of State F. A. M.

June 11, 14, 15, Chicago.—Motordrome race meets at Riverview.

June 11, 14, 15, Cleveland.—Races under auspices of Luna Park Motordrome & Amusement Co.

June 11, 14, 15, Detroit, Mich.—Races at Detroit Motordrome.

June 15, Trenton, N. J.—Run to South Amboy under auspices of Indian M. C.

June 16-26.—Los Angeles M. C., Sunset Ramble through Southern California.

June 19, Chicago.—Race meet at Riverview Motordrome.

June 19, Cleveland.—Races at Luna Park track.

June 19, Detroit.—Race meet at Detroit Motordrome.

June 19-22, Cleveland, O.—First convention of Ohio State F. A. M.

June 21, San Jose, Cal.—First annual convention of California State F. A. M.

June 21, Cleveland, O.—Race meet at Randall Park under auspices of Cleveland M. C.

June 21-22, Worcester, Mass.—Worcester M. C. endurance run.

June 22, New Haven, Conn.—New Haven M. C. run to Coney Island, N. Y.

June 22, Newark, N. J.—New Jersey M. C. run to West Point, N. Y.

June 22-23, Chicago.—Race meets at Riverview Motordrome.

June 22-23, Detroit.—Board track meets at Detroit.

June 22-23, Cleveland.—Motordrome meets at Cleveland.

June 29, LaPorte, Ind.—Run to Logansport under auspices of LaPorte M. C.

June 29, Trenton, N. J.—Indian M. C. run to Philadelphia.

July 1, Waterloo, Canada.—Race meet.

July 3-4-5.—First convention of New York State F. A. M. at Elmira.

July 4, La Porte, Ind.—La Porte M. C. race meet.

July 4, Elgin, Ill.—National motorcycle road race.

July 4, Grand Forks, S. D.—Road race to Fargo.

July 4, Washington, D. C.—Race meet at Bennings track under auspices of National Capital M. C.

July 4-5-6, New Haven, Conn.—New Haven M. C. three-day run to Atlantic City, N. J.

July 4-5-6, Portland, Ore.—W. F. M. convention.

July 4-6, Seattle, Wash.—Pacific Motorcycle Racing Association race meets.

July 13, Aberdeen, S. D.—Aberdeen M. C. tour to Black Hills and Denver.

July 13, Toledo, O.—Race meet under auspices of Interstate Racing Association.

July 13, New Haven, Conn.—New Haven M. C. run to New Gate Prison, Conn.

July 21, Hutchinson, Kan.—Start of Short Grass Tour to Denver.

July 23-26, Denver, Colo.—Annual F. A. M convention and National Motorcycle Meet.

July 27, New Haven, Conn.—New Haven M. C. secret time run to Danbury.

August 5-8, Atlantic City, N. J.—Annual convention of the Cycle Parts Accessories Association.

August 10, New Haven, Conn.—Endurance run under auspices of New Haven M. C.

August 10, LaPorte, Ind.—Run to Rochester run to Chicago.

September 1, Brooklyn, N. Y.—Second convention of New York State F. A. M.

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How Mondex-Helix Helps Motor

THE engineering department of the Aristos Co., of 250 West Fifty-fourth street, New York, manufacturers of Mondex devices and the Mondex-Helix gasoline mixer, has prepared the following interesting article, fully explaining the modus operandi of the Mondex-Helix gas saver and its obvious need in making carbureters more efficient.

When a motor is operated at high speed, the rapid rush of fuel through the carbureter so completely breaks up and thoroughly diffuses the gasoline through the air, that the mixture is nearly perfect from the standpoint of homogeneous combustibility. This permits of an adjustment of the fuel which gives both power and economy. At slower motor speeds, however, when the mixture is drawn less rapidly from the carbureter, it becomes less efficient through diminished breaking and diffusing. In this case, there is more waste (not all of the fuel is in shape for complete combustion), and more gasoline is required for the same amount of air because of the lower ratio of fuel surface area to mass.

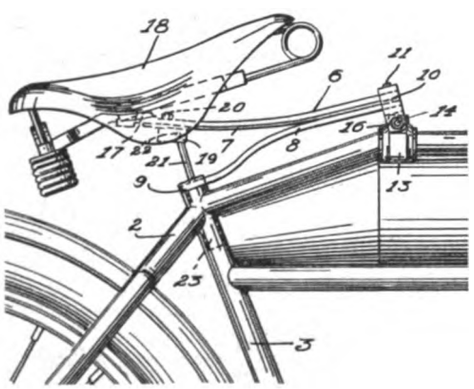
The automatic feature of the carbureter is supposed to take care of something more than the varying quantity of mixture required for different loads and speeds of the motor, which, if it were in proper condition for complete combustion at all times, would not need to be varied as to its proportions of gasoline and air. As the combustibility of the mixture varies at different gas speeds, the carbureter designer seeks to provide for varying proportions of fuel to air made necessary by the varying ratio of surface area to mass. The combustion produces much waste at all other motor speeds (further complicated by varying load demands), than the one or two for which it may be possible accurately to adjust the carbureter.

Carbureters may be made to work approximately perfect from a practical operation standpoint, while showing imperfect efficiency and economy. Forrest A. Heath began experimenting over eight years ago to find a means of keeping constant the breaking and diffusing of the fuel in the mixture from a carbureter under varying loads and speeds of the motor. After the principle was established, it required several years to embody it in a form that was simple and practical and contained no moving parts. This work resulted in the production of the Mondex-Helix, for which the Aristos Company of New York claims results which are quite as astonishing as the simplicity of the device.

The Mondex-Helix is inserted in the intake pipe of a motor, between the carbureter, and the cylinders, like a cartridge in a gun. As the mixture of the fuel and air are drawn through it, a combination of swirl and interference automatically breaks and diffuses the gasoline through the air. This permits of an entirely different adjustment of the carbureter, which no longer has to provide improper proportions of gasoline; the motor runs smoother and is vastly more flexible because of the constancy of combustion, shows more power because of more rapid combustion, and requires much less fuel because of the elimination of waste. The company is receiving most satisfactory reports from Mondex-Helix users.

NEW SADDLE SPRING

PATENT NO. 1,061,199, issued to Frank E. and Ronald A. Palin, of San Mateo, Calif., is for a spring seat for motorcycles. To the top tube of the frame is attached a collar and



shackle, the latter carrying three leaf-springs. Two of these leaves are attached to a fixture which carries the seat and a bolt which projects downward into a tube fitting into the seat-mast tube of the motorcycle frame. The third spring has its rear end resting on a saddle at the top of the tube beforementioned. To the bolt is fitted a recoil spring which bears against the saddle within the tube. The shocks from the road cause the seat and rider to oscillate about the shackle attached to the collar, the two upper springs with the lower spring damping the oscillations. The spring on the bolt serves as a buffer on the recoil movement. The method of carrying the springs prevents lateral motion.

KELLY TO HANDLE PUBLICITY.

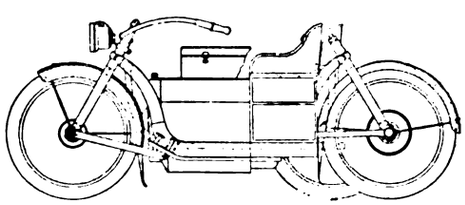
A PUBLICITY department has been established by the Wheeler-Schebler Carbureter Company, of Indianapolis, in connection with its advertising department. Joe Kelly, a well-known newspaper man of Indianapolis, will be in charge of the new department.

TOLEDO CLUB ON OUTING

MEMBERS of the Toledo (O.) Motorcycle Club held their first official run of the season to Findlay about the middle of this month. They were entertained by the Findlay Motorcycle Club upon their arrival.

A CANADIAN PRODUCT

A NEW motor vehicle using three wheels and embodying both motorcycle and automobile features is now under construction at the factory of Brantford Autocycles, Ltd., Brantford, Canada, and the accompanying illustration gives some idea of its makeup. A four-cylinder, water-cooled motor supplies the power through the medium of a multiple disc clutch and propeller shaft. The frame,



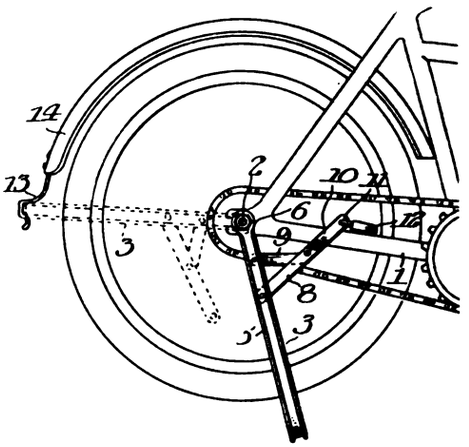
sprung fore and aft, is of channel steel. The tires are 28 x 3 inches. It is claimed for the machine that it will afford an ideal combination of comfort and power on the road and that it can be operated economically.

MOTORCYCLE SQUAD RECORD

MOTORCYCLE officers of Mobile, Ala., made 167 arrests, 111 convictions and collected $1,067 in fines during 1912. April was the heaviest month for violations, 253 persons being brought into court for speeding. This showing has convinced the authorities of the desirability of the motorcycle for police work. The squad is equipped with Indians.

FOR LOCKING THE STAND

JOHN J. TOBIN, of Chicago, is the inventor of the improved motorcycle stand shown in the accompanying illustration. It will be noted that the supporting arm of the stand on either



side forms a U at its outer end and in this rests the lower rear fork member when the machine is on the stand. The parts forming the U have aligning holes through which the yoke or bail of a padlock may be passed in order to prevent the removal of the motorcycle. In this way the lower rear fork member is locked in the forked end of the stand bracket.

BOSCH SUPPLY STATIONS

ANNOUNCEMENT is made by the Bosch Magneto Company, New York City, that the chain of Bosch supply stations has recently been extended by the addition of the following: Lemke Electric Co., Milwaukee, Wis.; Miller-Dudley Co., Washington, D. C.; Beverly Garage, Staunton, Va.; Virginia Motor Car Co., Petersburg, Va.; Dan Valley Motor Co., Danville, Va.; Fairchild Auto Co., New Orleans, La.; Ozburn Auto Supply Co., Memphis, Tenn.; Drennan Motor Car Co., Birmingham, Ala.; Chester Motor Car Co., Nashville, Tenn.; Hobbie Motor Car Co., Montgomery, Ala.; Mobile Motor Co., Mobile, Ala.; Woodside Motor Co., Charlotte, N. C.; American Ball Co., Providence, R. I., and the Bakersfield Garage & Auto Supply Co., Bakersfield, Cal.

W. D. MacMillan, Jr., Wilmington, N. C.; Kinston Garage, Kinston, N. C.; Wichita Garage, Wichita, Kan.; The Auto Supply Co., Hutchinson, Kan.; Joseph T. Cox, Penn Yan, N. Y.; Red Motor Supply Co., St. Paul, Minn.; Cuskaden Auto Supply Co., Atlantic City, N. J., and Severin-Lumbard Tire & Supply Co. Oklahoma City, Okla.

CLEVELAND FIRM INCORPORATES.

INCORPORATION papers have been filed with the Secretary of State by the Puncturemend Company, of Cleveland, Ohio. The incorporators are H. C. and M. A Wharfield, T. L. Felber, Florence Cook and Wiliam C. Wood.

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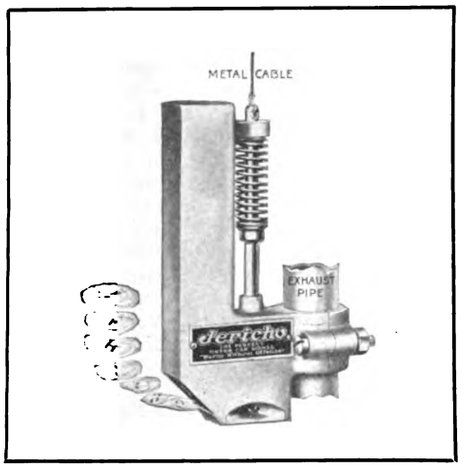
THE JERICHO FOR MOTORCYCLES

IN THE accompanying illustration is shown the Jericho motorcycle horn, manufactured by the Randall-Faichney Company, Jamaica Plain Station, Boston, Mass., a warning device that is rapidly coming into favor among motorcyclists who demand a neat, simple and effi-



cient road-clearing signal. The Jericho model for motorcycles is a comparatively new product but is already demonstrating that it embodies the same high-grade material and workmanship that distinguishes the popular automobile type. The Jericho can be fitted to any motorcycle that has two inches of straight exhaust pipe, which means that it is adaptable to all standard machines. The price, complete with all fittings, including a Jericho valve, is $4.50. The horn is easily attached and operates perfectly on either single or twin-cylinder motorcycles.

The Randall-Faichney firm is also finding a broad field for its motorcycle oil guns, which are offered in two types: the Copley, with leather-packed washer and a capacity of half an ounce, and the Broadway, with solid metal plunger and the same capacity.

R-S AGENT IN NEW QUARTERS

OWING to the rapid growth of its business, the Hub Cycle Company, of Boston, Mass., New England distributor for the Reading-Standard, and agent for a number of bicycle lines, has found it necessary to move to new quarters, at 14 Portland street.

GOODYEAR TIRE BULLETIN

FEATURING the spring number of the *Motorcycle Tire Bulletin,* published by the Goodyear Tire & Rubber Company, of Akron, Ohio, is an article written by E. M. Estabrook, chairman of the F. A. M. Membership Committee, entitled "How to Organize a Motorcycle Club."

BARROWS BACK AT OLD POST

B. S. BARROWS has returned to the Hendee Mfg. Co. as head of the repair department, over which he presided several years ago. With Barrows' return to the Wigwam, A. G. Gruendler assumes charge of the sidecar department.

JOHN P. MAHONEY, for many years purchasing agent for the Excelsior Motor Mfg. & Supply Co., and well known to the motorcycle trade, is to be married on June 18.

FRANK W. GLUGIA, of Joliet, Ill., who has ridden a motorcycle since 1910, states that he has spent only $10 on the machine in addition to the original cost.

IN POLICE SERVICE

IN A recent letter from the Harley-Davidson factory mention is made of the growing interest shown by the various police departments in motorcycles. Reference was made to the fact that Joe Holle, Harley-Davidson dealer in San Francisco, has delivered 20 machines to the police department of that city so far this year. One Harley-Davidson has been delivered to the police department at Allentown, Pa., by the Allentown Motorcycle Company. A. G. Mueller, agent for the Harley-Davidson in Milwaukee, has sold two of the 1913 models to the local police department and two to the county, to be used by the deputies. Carl Larson, who handles the Harley-Davidson in Des Moines, has disposed of five machines to the law-enforcing body of that city.

AERMORE EXPANSION

IN ORDER to handle its rapidly growing business to better advantage the Aermore Mfg. Co., of Chicago, has moved into larger quarters. This firm produces the well-known Aermore exhaust horn, the Rogers sidecar, Sabo motorcycle lock and convertible tool and is experiencing no difficulty in keeping its staff working at top speed. The new establishment of the company is at 153-155 West Michigan street, arrangements having been made to occupy one-half of the third and the entire fourth and fifth floors of a five-story building. The Aermore company has a contract covering all the mufflers for the Cadillac cars for 1914 and it is now preparing to market a new motorcycle muffler.

NEW THOR PARTS LIST

A NEW edition of the Thor parts list, covering all the machine models and the firm's brake and two-speed gear, has just been issued by the Aurora Automatic Machinery Co. and is already in wide demand. Special care has been exercised in arranging the contents and in illustrating the parts, and the operation of finding the part needed and all necessary information concerning it has been made very simple.

NEW TYPE OF SPEED TRAP.

MOTORCYCLISTS of Salt Lake City, Utah, are confronted with a new method of speed trap operation. One motorcycle cop rigged out in riding togs will pull up alongside the rider and coax a race out of him, while another cop in uniform speeds up and arrests the unsuspecting rider for violating an ordinance. Few, however, have been caught.

DE LUXE GROWTH

IN addition to the space it formerly occupied the Excelsior Cycle Co., of Chicago, has taken over the entire first floor of the building in which its establishment is located on West Sangamon street, and about 6,000 square feet of additional space will be available. In future the office, shipping department and presses will occupy the first floor and it will be possible to expand these departments in keeping with the growing demand for the company's De Luxe motorcycles.

HELPING THE MERKEL RIDER

A NEAT pocket instruction book has just been issued by the Miami Cycle & Manufacturing Company, of Middletown, Ohio, giving full particulars as to the care and operation of Flying Merkel motorcycles. It also contains helpful illustrations, and the few troubles experienced by Merkelites will be easily overcome upon reference to this booklet.

ON FLORIDA'S SANDY ROADS

J. FOUNT CALDWELL, a motorcyclist of Plant City, Fla., recently rode his Excelsior from Tampa to Valdosta, Ga. He covered the 274-mile course, which was practically all sand, in twenty hours and forty minutes.

HOY'S UNIQUE OUTFIT

ROBERT HOY, president of the District of Columbia Motorcycle Club, of Washington, D. C., appears on the motorcycle in the accom-

panying photograph, with W. M. Brooks, private secretary to Harry F. Seamark, the Merkel and Emblem agent for the National Capital, on the sulky. This picture was taken on Sixth street, Washington. The machine pulled the outfit a distance of eight miles to Potomac, Md.

A Truckload of Parcels Post Packages Leaving the Factory of the Motorcycle Equipment Co., Hammondsport, N. Y., a Daily Occurrence Now at the Home of Meco Supplies.

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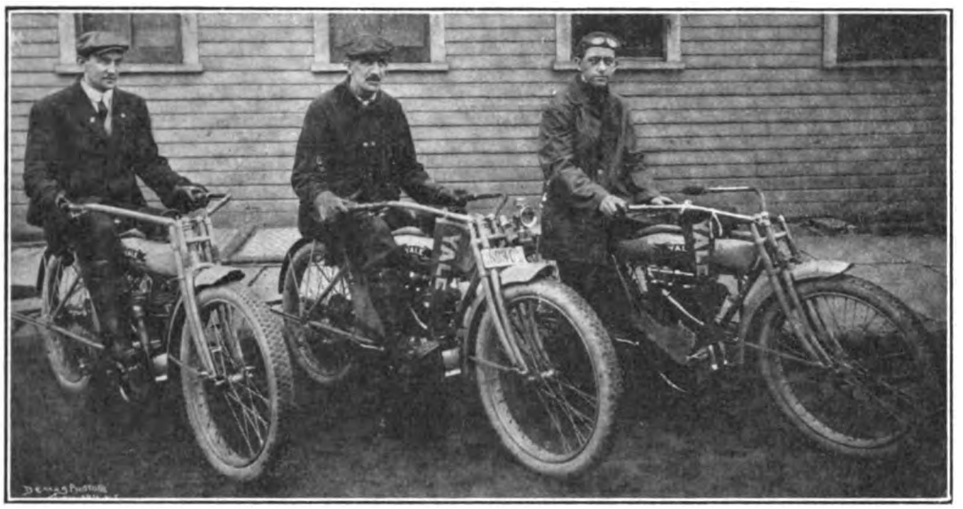


George Riechey, P. W. Stevens and O. W. Stevens, Perfect-Scoring Yale Team in Run of the Newark (N. J.) M. C.

FOGARTY IS NEW POPE MANAGER

FROM the Pope Manufacturing Company, of Hartford, Conn., comes the report that J. P. Fogarty has been appointed manager of the Westfield (Mass.) motorcycle and bicycle plant. Fogarty came into this position upon the resignation of E. E. Hinsman. He has been connected with the Pope company seventeen years, during which period he has held many responsible positions. Through his long experience with the Pope company he has had wide experience which qualifies him for his new position.

CORBIN RECORD BOOK

A NEAT vest-pocket booklet containing official records for practically all American sports is being passed out by the Corbin Screw Corporation, and the demand for it is already surprising the New Britain folks. It goes without saying that motorcycle records are included in the booklet, which is one of the most attractive little offerings that has come to the Editor's desk in some time. In writing for it refer to the "Corbin Record Book."

JEFFERSON IN LOUISVILLE

RIDERS of Louisville, Ky., and vicinity are now becoming acquainted with the Jefferson motorcycle through a broad-gauge publicity campaign that is being waged by the Keystone Cycle Co., of 726 West Market street, which has taken the agency for the sturdy product of the Waverly Mfg. Co. The Jefferson is a newcomer in Louisville, but it has already created an excellent impression, and the Keystone company looks forward to rapid sales.

DEALERS ARE "GAME"

W. J. SURRE, tire sales manager of the Continental Rubber Works, Erie, Pa., has just returned from a trip to Dayton, Ohio, and other points in the recently flooded district and has brought back some vivid impressions of the havoc wrought by the elements. He reports that many motorcycle dealers and jobbers throughout the flooded area suffered considerable losses, but that in nearly every instance repair work is being rushed and the motorcycle men are making Herculean efforts to meet the demands made upon them.

VISITS INDIAN FACTORY

AMONG the prominent visitors at the Indian factory during the week ending May 24, was J. L. Foubister, of Auckland, New Zealand. Foubister has ridden an Indian with success in New Zealand. After looking over the factory at Springfield he sailed for London. He plans to enter the Senior Tourist Trophy and the French Grand Prix races, using an Indian machine.

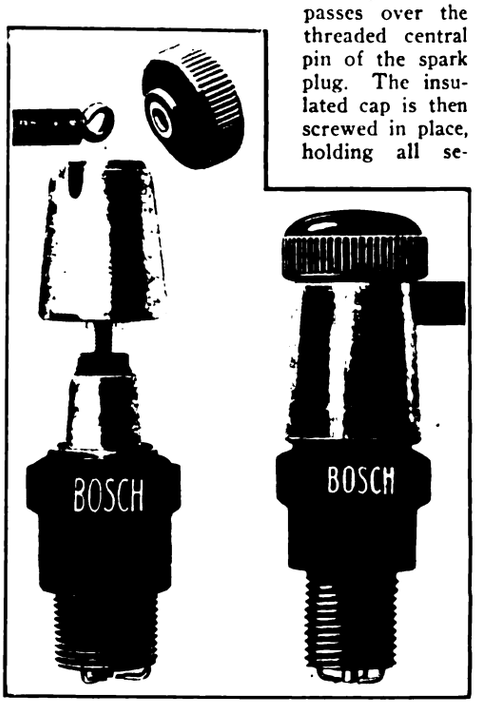
F. A. M. membership certificate number 22,000 was issued to Ira Jacobs, of Tulsa, Okla.

HOODS FOR BOSCH PLUGS

THE advanced idea of entirely enclosing the ignition system so as to prevent straying of the electrical energy is made possible without alteration of the motor design, or the use of special spark plugs, through the adoption of Bosch spark plug hoods. Water or other liquid current conductors cannot possibly reach the live electrical connections when the hoods are in position; so that the ignition system is thoroughly insulated. Although placed upon the market a little over a year ago, the Bosch spark plug hoods have not been especially featured, due to the difficulty of obtaining a sufficient supply of Steatite, the artificial stone of which both the hoods and the insulators of Bosch spark plugs are constructed.

The hood illustrated is noteworthy on account of its simplicity of construction and the method of attachment. There are but three parts—the Steatite hood, the asbestos washer and the insulated terminal thumb cap.

To place the hood in position, the knurled terminal nut regularly supplied with the Bosch plug is removed, the asbestos ring is pressed into the groove at the base of the hood. The Steatite hood is then placed in position, the cable is set in its recess and its loop terminal passes over the threaded central pin of the spark plug. The insulated cap is then screwed in place, holding all secure. An absolutely insulated and waterproof spark plug is the result.



The ignition cable can be detached quickly and without tools, and the removal of any part of the protecting hood proper is unnecessary. When it is desired to detach the cable, only thumb screw is removed in the same manner as regularly operated on spark plugs. The spark plug terminal is completely insulated so that the cable may be removed or a connection made more secure while the engine is in operation. There need be no fear of electrical shock. Bosch spark plug hoods are made for all sizes of Bosch spark plugs, including the special motorcycle size.

BULLETINS from Earl Armstrong, who is now on the Pacific Coast, are to the effect that he expects to do a little dirt track riding around Portland before heading eastward. He also intends to stop over at Salt Lake City for a few meets on the Wandemere Bowl.

Sturdy Pirate Model Ready in July

WORK is now being rushed by the Milwaukee Motorcycle Co., 834-836 Muskego avenue, Milwaukee, on the first models of the Pirate, a new machine which is to be placed on the market in about two months. The company will make its first bid for recognition with a single-cylinder model, and about two months after the appearance of this type a twin machine will also be offered. In the accompanying photograph is shown one of the first photographs of the new single.

This machine is fitted with a 5 h. motor, having a stroke of 4 inches, large mechanical valves, silent timing gears and oiling by side feed drip and splash system and an auxiliary oil pump. Owing to the simple construction of the crankcase it is easily cleaned and the rider should experience no difficulty in keeping his power-plant attractive on the exterior as well as efficient in operation. The Pirate will carry a Heitger carbureter, Splitdorf or Berling magneto, Troxel Saddle, Eclipse countershaft clutch and 28 x 2¼-inch tires. As will be noted in the illustration the frame is of the loop type, and the company is making exhaustive tests to insure rigidity and durability. The front fork is of the Sager type, and a shock-absorbing seat will be provided.

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Correct motorcycle lubrication is a serious problem. But its fundamentals are simple. We will cover them in a plain question-and-answer form.

Question: What moves your motorcycle?

Answer: Power.

Question: What determines your power?

Answer: Your motor, your fuel and your lubricant. If any one of these factors falls short in full efficiency, you receive less than full power. The greater part of the power lost is taken up by friction—wear on the moving parts.

Question: What will give you the most efficient lubrication?

Answer: An oil of the highest lubricating *quality* whose *"body,"* or thickness, is best suited to the feed requirements of your motor.

Question: Suppose you use oil of lower lubricating *quality* or of less correct *"body."* What are the penalties?

Answer: Many. Among them are:

(1) Escape of the explosion past the piston rings and loss of compression. (2) Unlubricated cylinder walls at the upper end of the piston stroke. (3) Imperfect lubrication of many of the bearings. (4) Excess carbon deposit. (Due to the oil working too freely past the piston rings and burning in the combustion chamber.) (5) Excessive oil and fuel consumption. (6) Worn wrist pins. (7) Rapid and unnecessary deterioration of your motor. (8) Loose bearings. (9) Noisy operation.

Question: How can you determine the correct oil for your motorcycle?

Answer: By consulting the lubricating chart—printed on the right.

Question: What assures the reliability of this chart?

Answer: The chart is the result of the most far-reaching and most thorough study of motorcycle lubrication that has ever been undertaken.

It was prepared by a Company whose authority on scientific lubrication is recognized throughout the world—the Vacuum Oil Company.

It was prepared after a careful analysis of the motor of each make and each model of motorcycle.

The superior efficiency of the oils specified has been thoroughly proven by practical tests.

If you use oil of lower lubricating ***quality*** *or of less-correct* ***"body"*** *than that specified for your machine, your motor faces unnecessary friction, loss of power, and ultimate serious damage.*

In buying Gargoyle Mobiloils from dealers it is safest to purchase a full barrel, half-barrel, or a *sealed* five-gallon or one-gallon can.

Look for the name and the red Gargoyle on the container.

A booklet, containing our complete automobile and motorcycle lubricating charts, together with points on lubrication, will be mailed on request.

GARGOYLE

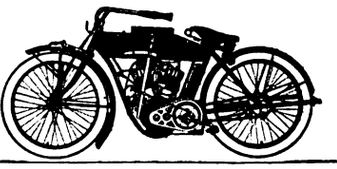
Mobiloil

A grade for each type of motor

The various grades, refined and filtered to remove free carbon, are:

Gargoyle Mobiloil "A"
Gargoyle Mobiloil "B"
Gargoyle Mobiloil "Arctic"

They are put up in 1 and 5 gallon sealed cans, in half-barrels and barrels. All are branded with the Gargoyle, which is our mark of manufacture. They can be secured from all reliable garages, automobile supply stores, and others who supply lubricants.



Correct Lubrication

SMOOTHEST OPERATION	MOST POWER	FEWEST REPAIRS	LONGEST LIFE

Explanation. In the schedule, the letter opposite the motorcycle indicates the grade of Gargoyle Mobiloil that should be used. For example: "A" means "Gargoyle Mobiloil A." "Arc." means "Gargoyle Mobiloil Arctic." The recommendations cover all types of the same make unless otherwise noted.

Model of	1908		1909		1910		1911		1912		1913	
MOTORCYCLES	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter	Summer	Winter
American					B	A	B	A	B	A	B	A
American Peugeot (2 cyl.)			B	A	B	A	B	A	B	A	B	A
American Peugeot (4 cyl.)							A	Arc.	A	Arc.	A	Arc.
A. M. C.											B	A
Apache	B	B	B	B								
Armac	B	A	B	A					B	A		
Arrow									B	A	B	A
Aurora									B	A		
Auto-Bi	B	A	B	A								
Auto-Tri											B	A
Bailey Flyer											B	A
Black Hawk									B	A	B	A
Bradley									B	A		
Breed									B	A		
Crouch	B	B	B	B								
Curtiss	B	A	B	A	B	A	B	A	B	A		
C. V. S.					B	B	B	B	B	B		
Dayton											B	A
De Luxe (1 cyl.)							B	A	B	A	B	A
De Luxe (2 cyl.)							A	Arc.	A	Arc.	A	Arc.
Detroit							B	A	B	A		
Detroit Bi-Car									B	A		
Eagle					B	B	B	B	B	B	B	A
Electra									B	A		
Emblem (1 cyl.)			B	B	B	B	B	B	B	B	B	B
Emblem (2 cyl.)					B	A	B	A	B	A	B	A
Erie	B	B	B	B								
Excelsior	B	A	B	A	B	A	B	A	B	A	B	A
Flanders									B	A		
F. N.	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Geer	B	A	B	A	B	A	B	A	B	A	B	A
Gerhart									B	A		
Greyhound					B	A	B	A	B	A	B	A
Harley-Davidson	B	A	B	A	B	A	A	Arc.	A	Arc.	A	Arc.
Haverford							B	B	B	B		
Hilaman	B	A	B	A								
Henderson									A	Arc.	A	Arc.
Indian (1 cyl.)	B	B	B	B	B	B	B	B	B	B	B	B
Indian (2 cyl.)	B	A	B	A	B	A	B	A	B	A	B	A
Iver Johnson									B	A	B	A
Jefferson											B	A
Kokomo									B	A		
Majestic									B	A	B	A
Manson	B	B										
Marvel					B	B	B	B	B	B	B	B
Merkel	B	A	B	A	B	A	B	A			B	A
Michaelson											B	A
Minerva	B	A	B	A								
Minneapolis			B	A	B	A	B	A	B	A	B	A
M. M.	B	A	B	A	B	A	B	A	B	A	B	A
Monarch									B	A	B	A
Motorette									B	A	A	A
New Era			B	A	B	A	B	A	B	A	B	A
New Hudson											B	A
N. S. U. (1 cyl.)	B	B	B	B	B	B	B	B	B	B	B	B
N. S. U. (2 cyl.)			A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Peerless							B	A	A	A		
P. E. M.									B	A	B	A
Peugeot	B	A	B	A	B	A	B	A	B	A	B	A
Pierce (1 cyl.)			B	A	B	A	B	A	B	A	B	A
Pierce (4 cyl.)			A	Arc.	A	Arc.	A	Arc.	A	Arc.	A	Arc.
Pirate											B	B
Pope							B	B	B	A	B	A
Racycle							B	A	B	A		
Reading Standard	B	A	B	A	B	A	B	A	B	A	B	A
Reliance	B	B	B	A	B	A	B	A	B	A	B	A
Royal	B	B	B	A	B	A						
Schickel							B	A	B	A	A	Arc.
Scout											B	B
Shaw											B	A
Theim	B	A	B	A	B	A	B	A	B	A	B	A
Thor (1 cyl.)	B	B	B	B	B	B	B	B	B	A	B	B
Thor (2 cyl.)	B	A	B	A	B	A	B	A	B	A	B	A
Torpedo	B	B	B	B	B	B						
Wagner	B	B	B	B	B	B	B	B	B	A	B	A
Yale (1 cyl.)	B	B	B	B	B	B	B	B	B	A	B	B
Yale (2 cyl.)					B	A	B	A	B	A	B	A

VACUUM OIL COMPANY

Rochester, U. S. A.

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Distributing warehouses in the principal cities of the world.
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MOTORCYCLE MART

One time, three cents a word; twice, two cents a word each insertion. Agents' cards, five cents per word; two or more times, three cents per word each insertion. No advertisement for less than fifty cents.

FOR SALE OR EXCHANGE

FOR SALE.—One 1912 Emblem motorcycle with sidecar; $125. One 2 h. p. M. and M. twin motor; carburetor, coil and muffler, $50. H. Haskel, Spencerville, Ohio.

HAVE YOUR license on neat and strong. Blue prints of five-minute-made holders for Indian 10 cents by first mail. G. W. Haywood, Kingsland, New Jersey.

FOR SALE.—1912 4 h. p. Harley-Davidson, in splendid condition, equipped with speedometer, Purdy exhaust whistle and luggage tandem. Address Wm. Lauterbach, Mendota, Ill.

MOTORCYCLES CHEAP.—Every motorcycle in stock must be sold this month; need room for large shipment of 1913 Eagles. Write for list "I." American Motor Co., 2724 Michigan avenue, Chicago, Ill.

WE HAVE on hand 25 twin type and 25 single type Herz magnetos of the 1913 model. These are new instruments and it will pay to investigate. Address D-H, c/o MOTORCYCLE ILLUSTRATED.

FOR SALE.—One Pope Overhead Valve 7-8 horse power motorcycle motor, absolutely brand new and never run except at the factory. This motor is complete with Bosch magneto, Schebler carbureter and sprocket. Price, $85, send $5 with order, balance C. O. D. Box 86, Indianapolis, Ind.

FOR SALE.—New 1912 Flanders motorcycle, 4 h. p. With Splitdorf magneto, flat belt, machine complete with full set of tools for $119 f. o. b. Athens, Ga. A. A. Jordan, Athens, Ga.

WHY BURN or shock your fingers? Air adjuster for Pilot Jet on Indian carbureter—25 cents by first mail. G. W. Haywood, Kingsland, New Jersey.

FOR SALE.—Six thousand dollars will purchase a well-established, prominently located motorcycle business in the best field in New Jersey, large accessory trade, good repair shop, agent for two leading makes of motorcycles and bicycles. Address Business Enterprise, MOTORCYCLE ILLUSTRATED.

WANTED.—To exchange a 1-horse combination lunch, cone and popcorn wagon costing $387, used one season, fully equipped, for twin motorcycle not older than 1912, equipped and in A1 condition; Indian preferred. Write for photo and description of wagon to Fred T. Gilbert, Box 345, Delhi, N. Y.

1912 PIERCE, 4 cylinder, almost new; guaranteed perfect condition; some 1913 improvements and equipment; 29 x 3 tires; best offer. H. E. Stout, 315 Washington street, New York.

SOL. LAZARUS **216 East 59th Street**
(The man with the goods) (at Queensboro Bridge)

WANTED.—1913 7 h. Indian, demonstrator or slightly used at about $210 or $215. Must allow examination. W. L. Darby, Belvidere, Ill.

FOR SALE.—Harley 1912 single. Run 400 miles. A1 condition. With equipment. Best offer over $135 takes it. W. D. Brooks, Cloverdale, Mich.

FOR SALE OR EXCHANGE, for single cylinder machine, 7 h. Merkel twin, chain-drive; run 300 miles; like new. A. Ehresman, Gary, Minn.

WANTED.—One single, one twin, new or perfect condition second-hand. Also agency for some standard machine. D. J. Addison, La Pine, Ala.

FOR SALE.—Indian sidecar; latest model; used few times; perfect. Price, $25. Also Prest-O-Lite No. 5 with headlight, $6. John Redimeyer, Lynn, Mass.

FOR SALE.—1911 Harley-Davidson twin with 1912 engine, new belt; in fine condition; $140. Also Stewart speedometer, Harley tandem attachment, Adams shock absorber and new Acme siren, cheap. George Ladd, Vineland, N. J.

FOR SALE.—1912 Pierce four-cylinder, two-speed gear, runs and looks like new, $235. Photo. Dr. Atkins, Rogersville, Mo.

FOR SALE.—1913 Thor Twin (white); good as new; fully equipped, No. 7 Old Sol light, Stewart speedometer, Barco exhaust, horn, luggage carrier and cushion, Prest-O-Lite tank. $325. Good reason for selling. E. C. Gurnee, Bloomingdale, N. J.

FOR SALE.—M. M. motorcycle, single cylinder, 4 h. p., good condition; it is a bargain. Oscar Stromer, Gillett, Wis.

SNAP.—6 h. p. Twin Simplex-Peugot, in good condition, $100 cash. Fred Pommer, 2740 Blaisdell avenue, Minneapolis, Minn.

FOR SALE.—Having discontinued the racing game I will sacrifice my two direct-drive, ported, racing machines; guaranteed very fast, one 7 h. p. and one 5 h. p. Indian. Earle S. Eckel, Washington, N. J.

FOR SALE.—1912 Single Cylinder Indian; used part of last season only; everything in first class condition. Looks like new; $140.

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SALESMAN WANTED.—To sell well advertised and much called for motorcycle article as side line. Big money to be made. Write at once stating full particulars. Replies held strictly confidential. Address C. M. C., care of MOTORCYCLE ILLUSTRATED, New York.

WANTED.—Good experienced motorcycle salesman, to sell Indians in the best territory in the world. Liberal commission. Guy W. Campbell, the Indian Man, Waterloo, Iowa.

MISCELLANEOUS

BARGAINS in motorcycle supplies and slightly used motorcycles. Write for particulars. Jewell E. Pierce, Magnolia, Miss.

REWARD.—Twenty dollars ($20) reward for the return of Pope motorcycle, Motor No. 370, Wata Wata belt, Columbus 1913 tag No. 19. Twenty dollars ($20) additional for the arrest and conviction of man giving false name and address in order to rent same. Name given, James A. Bogart, 482 S. Front street, deaf and dumb, or pretends to be so. E. M. Gorrell, 1243 N. High street, Columbus, Ohio.

FOR SALE.—Large Stock, well established motorcycle business in the best field in New Jersey; agent for two leading motorcycles, bicycles, with a large accessory patronage. Address Business Enterprise, MOTORCYCLE ILLUSTRATED.

PARTNER WANTED in a well going and fast growing motorcycle accessory business. Orders have doubled this year over last and cannot supply the demand on account of lack of manufacturing facilities. It will pay to investigate. Address "A," c/o MOTORCYCLE ILLUSTRATED.

MAKE YOUR MOTORCYCLE PAY by using a kodak under our direction. We want travel pictures. Send for particulars. Pacific Motographers, Browning and Addison streets, Berkeley, Cal.

NEW SLEEVE DEVICE for Indian double jet carbureter, starts motor instantly, 60 cents postpaid. State whether for single of twin. G. A. Allen, Livermore Falls, Me.

WANTED.—Good belt, 1¾ x 8 ft. 8 in., also free engine clutch. Fred Bootz, Wabasha, Minn.

CLEARANCE SALE of used equipments. Prest-O-Lites (with gauges), $7.60; speedometers, $5 to $10; lamps, $1.50 to $5, etc. Write me as I may have just what you want. G. Leslie Dougherty, Jerseyville, Ill.

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GUS ROTHOLZ, agent for Indian and Excelsior, 1491 Fifth avenue, between 119th and 120th streets, New York. Telephone, Harlem, 2337.

RIVERSIDE MOTORCYCLE GARAGE.—Distributors for Reading-Standard and agents for Eagle motorcycles, Simplex side cars and F. N. combination tandem attachment and luggage carrier, complete, $15. 1913 models in stock; also a large number of used machines at bargain prices. A complete machine shop; all repairs and supplies. 533 West 110th street, near Broadway. Tel. 10071 Schuyler.

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M.-M. AND EAGLE motorcycles. Two big twins—$240 and $275. Two big singles—$200 and $235. The largest and most powerful line in America. Full line of parts and accessories at George P. Jenkins, Eastern Distributor, 312 Amsterdam Ave., New York City.

THE NEW YORK Motorcycle Co., 782 8th avenue, New York City. Distributors of Thor motorcycles and parts. We have the only supply of parts in America for F.-N. and Royal Pioneer motorcycles. We also carry a big stock of parts for Indian, Curtiss, M.-M. and R.-S. We have at all times over 50 used machines at all prices. We repair broken cylinders, pistons and crank cases. We have the largest and best equipped motorcycle garage in the country and we do reliable repairing.

HAVE YOUR motorcycle overhauled now; expert work, moderate charges; ten years' experience in motorcycle repair work. Parts for N. S. U., Indian and Peugeot. Metropolitan Motorcycle Repair Co., 320 Amsterdam avenue, cor. 75th street, New York. Tel. No. 1001 Schuyler.

B. & C. TWO-SPEED and free engine gears for chain-driven motorcycles of the counter-shaft type. Bushnell & Cannon, 1268 East 80th street, Cleveland, Ohio.

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BARGAINS in motorcycle supplies and slightly used motorcycles; all makes at lowest prices. Write today for my price-slashing bargain list. Write today; don't put it off another minute, for it means dollars saved. Jewell E. Pierce, Magnolia, Miss.

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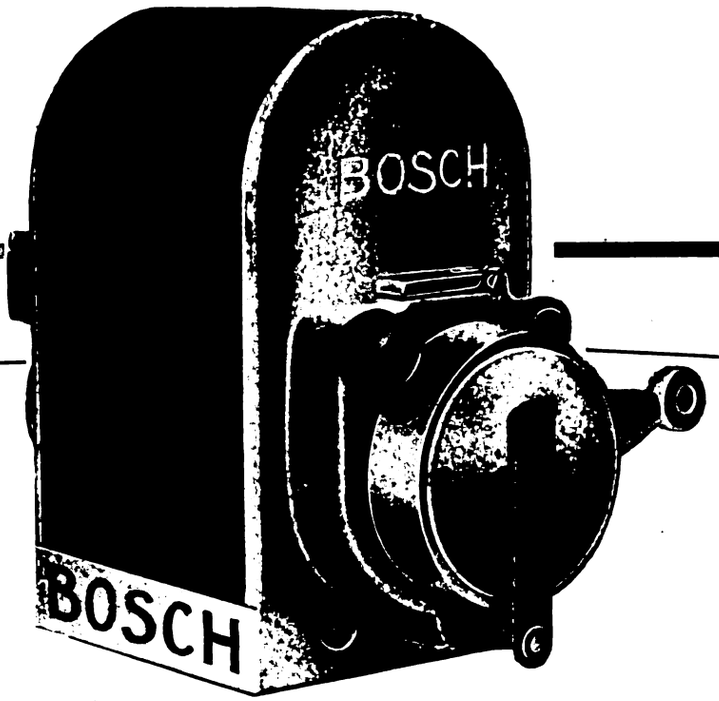

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De Luxe	Henderson	Merkel	Thor
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Eagle	Iver Johnson	Michaelson	Yale

EVER since motorcycles have risen from the experimental stage, the better ones have been Bosch-Equipt—in fact, the motorcycle never was more than an experiment until it was Bosch-Equipt.

The list of manufacturers given above comprises all the prominent makers of motorcycles; no other ignition system in the world can show a list of even $\frac{1}{8}$ as representative.

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Cheaper and Faster Than Railway

Mr. L. Lippow, Vice-President and General Manager of the Milwaukee Sycle Supply & Sales Co., was in Middletown, Ohio, the other day—the home of

THE FLYING MERKEL

When it came time to return to Milwaukee, Mr. Lippow found that on account of a railroad wreck he would be compelled to lose another day, and business required his attention in Milwaukee. Mr. Lippow rides a motorcycle as well as sells them—and he is independent of railroads, so he mounted a brand new 7 H. P. Flying Merkel motorcycle—one that had never been worn in—and headed for Milwaukee.

HE REACHED MILWAUKEE THE NEXT DAY WITHOUT A SINGLE MECHANICAL MISHAP BUT, BETTER THAN THAT—HE BEAT THE TRAIN HOME. THE TOTAL COST WAS $1.42 FOR OIL AND GASOLINE. BY RAILROAD IT WOULD HAVE COST HIM A LITTLE MORE THAN $10.00.

"Made its name on Merkel mileage"

The Miami Cycle & Mfg. Co.
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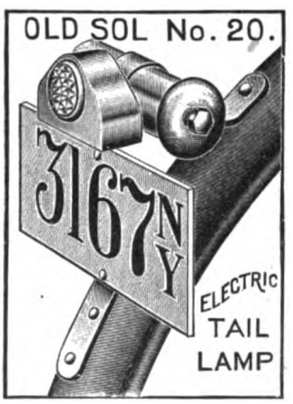
MEMBER M.M.A.

"Away with Gas Tail Lamps—Give me an Old Sol No. 20 Electric Tail Light"



Boys, it's a beaut! It does away at one stroke with the countless vexations of the gas tail lamp, with its long tube that has to be strung from the tank to the rear of the motorcycle and its steady drain on the gas that rightfully belongs to the headlight.

It's a compact little lamp, quickly detachable and can be used as a trouble lamp for fixing broken connections, adjusting the carbureter, etc., at night. Every feature of this lamp is fully covered by patents, both as to method of operation and design.

Stanley T. Kellogg, a leading distributor in Bridgeport, Conn., was so impressed with the efficiency of Old Sol No. 20 that he placed his order for 500. "Nuf sed."

DESCRIPTION

Weight, 22 ounces. Combination bracket holds number plate and allows white light from lamp to illuminate same. Red jewel on head throws rear signal. Burns from 20 to 25 hours intermittently. Supplied complete, with 1 candlepower bulb and battery No. 790.

PRICE, $3.00

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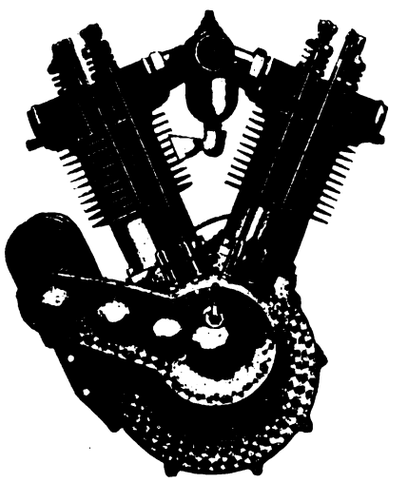

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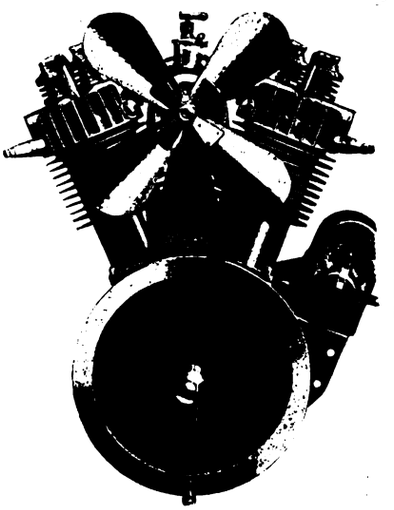
with overhead valves, long stroke, force feed mechanical oiling, double ignition, simplicity, light weight, power, speed and durability will establish and retain the reputation of your motorcycle or cycle car as the best in modern manufacturing.

Descriptive booklet furnished upon request.



10 H. P.—100 Pounds.

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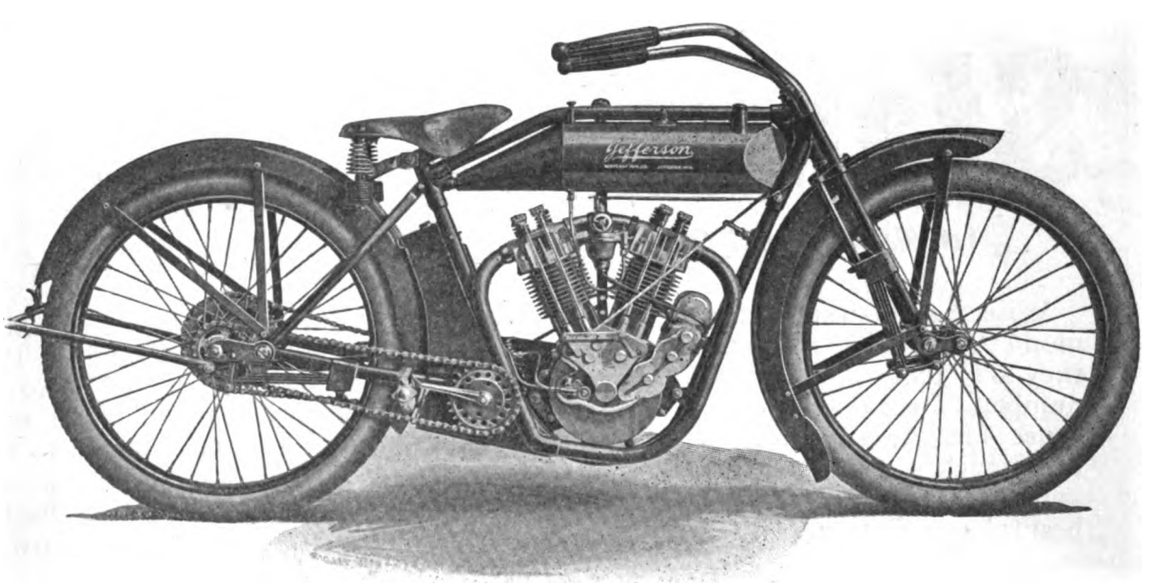
H. T. ROBERTS, Representative, Railway Exchange Bldg., Chicago

Handsome Is As Handsome Does



It's a beauty and no mistake, but don't judge by the looks alone. Note the automobile leaf springs, front and rear—the clean-cut powerful motor, with overhead valves, its perfect balancing. Note the absolute absence of superfluous parts, the simplicity of the grips, without clutch levers of any sort. Do you know what that stock motor can do, **without** special preparation or "tuning up" of any kind? Oh, only about 78 miles an hour! And without turning a hair. Yes, it's there with speed, but it's got service, too, in its make-up.

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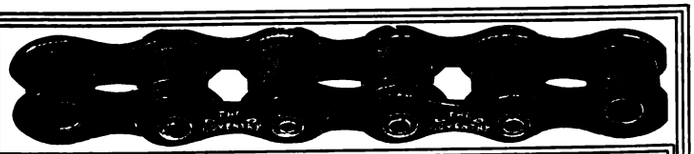

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In Name and Quality

Never has there been a truer saying than the time-worn old adage, "It's the little things that count." And it is the degree of attention paid to these "little things," that determines oftimes the success or failure of a machine to "get across."

Wise manufacturers are equipping with Diamond "E" Spokes and Standard Pedals because they are quality goods—because they reduce the number of repair shop trips for the rider—because farsighted manufacturers realize that a motorcycle's weakest points are its strongest—and it is that infinite attention to detail which bespeaks perfection.

The dealer who looks ahead will stock heavily with Standard Pedals and Diamond "E" Spokes and Nipples. The motorcycles that are not so equipped will inevitably come to his shop for replacements and it is up to him to sustain his reputation for high-grade repair work by fitting Standard parts.

Everyone knows the superiority of Standard No. 3 Pedals, their deep, soft rubber cushions, the interchangeability of the rubbers, and the thousand and one other good features that are not found in other pedals. The feet cannot slip no matter how rough the going. And the perfection of Diamond "E" Spokes is proverbial.

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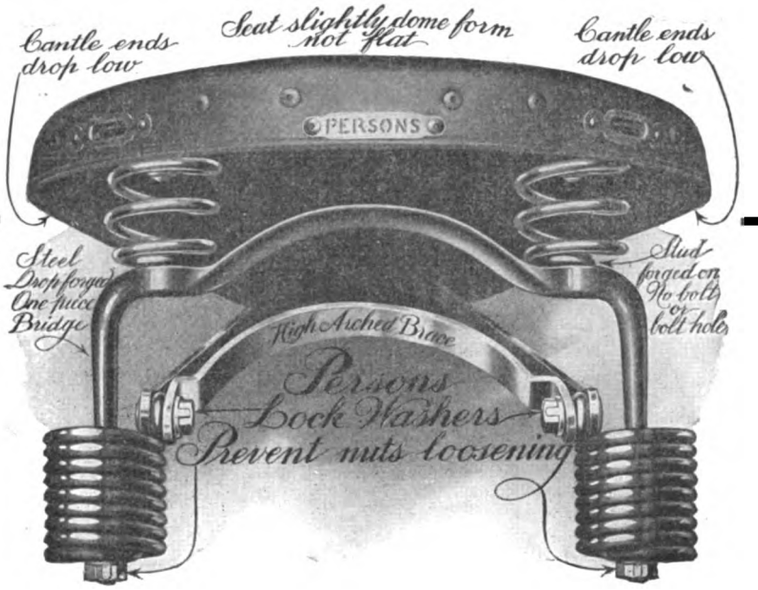

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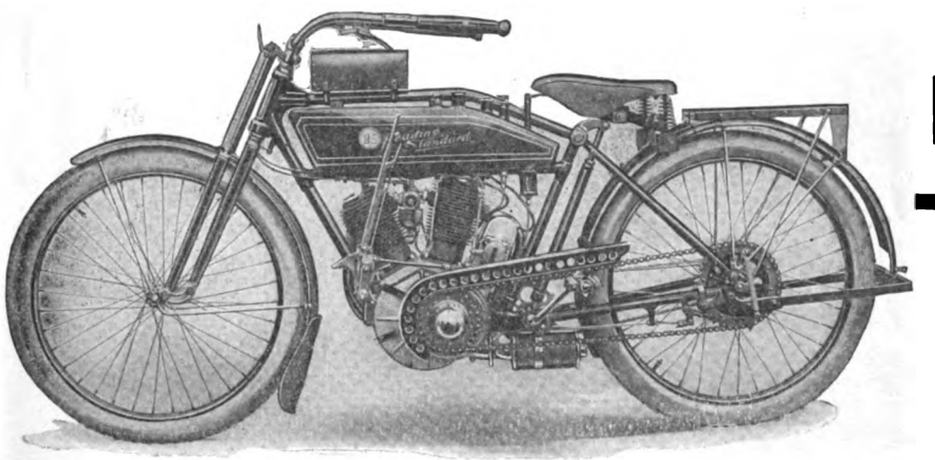

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R-S Cone Clutch, insuring perfect grip and very smooth engagement.

R-S Motor, with integral cams and gears of specially treated vanadium steel, large cooling flanges, long stroke, mechanically operated valves.

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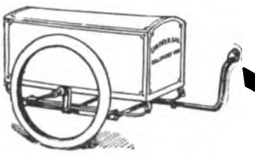

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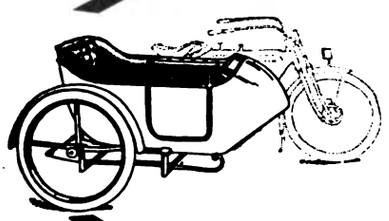

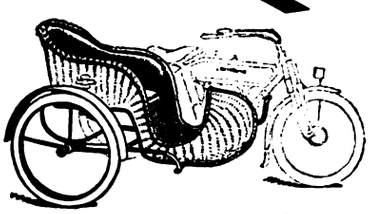

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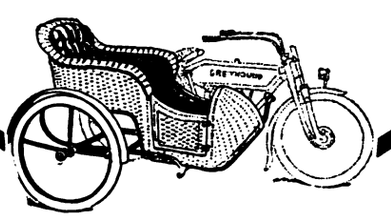

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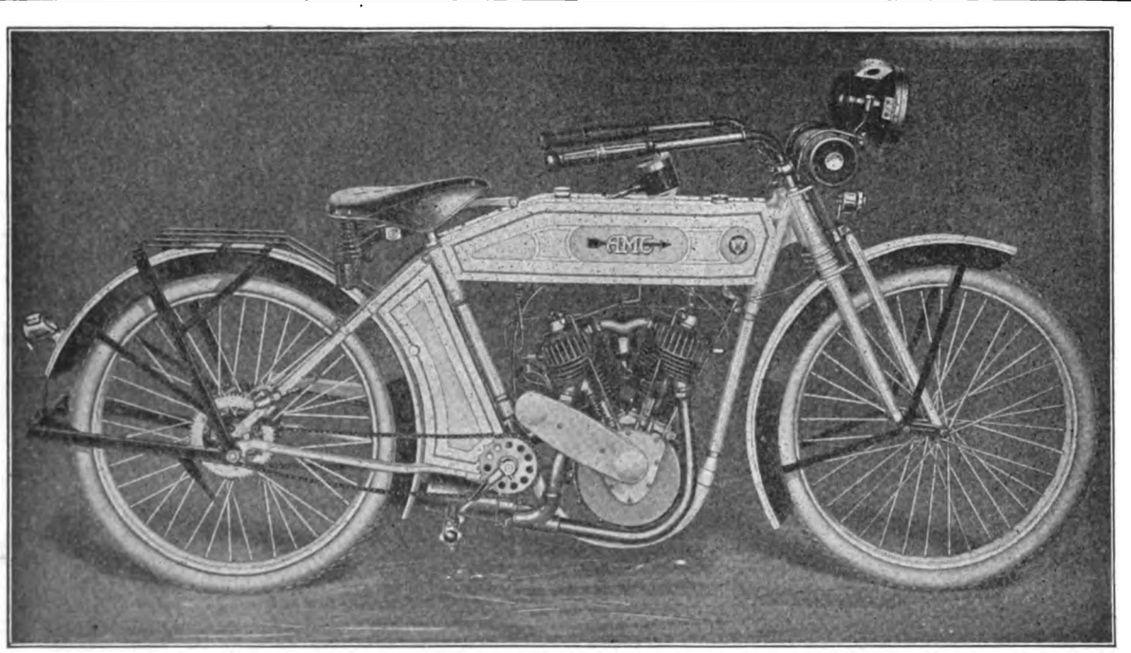

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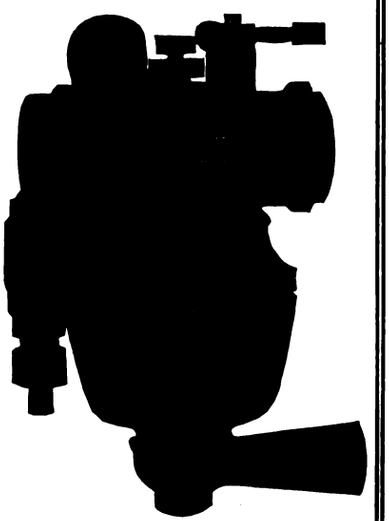

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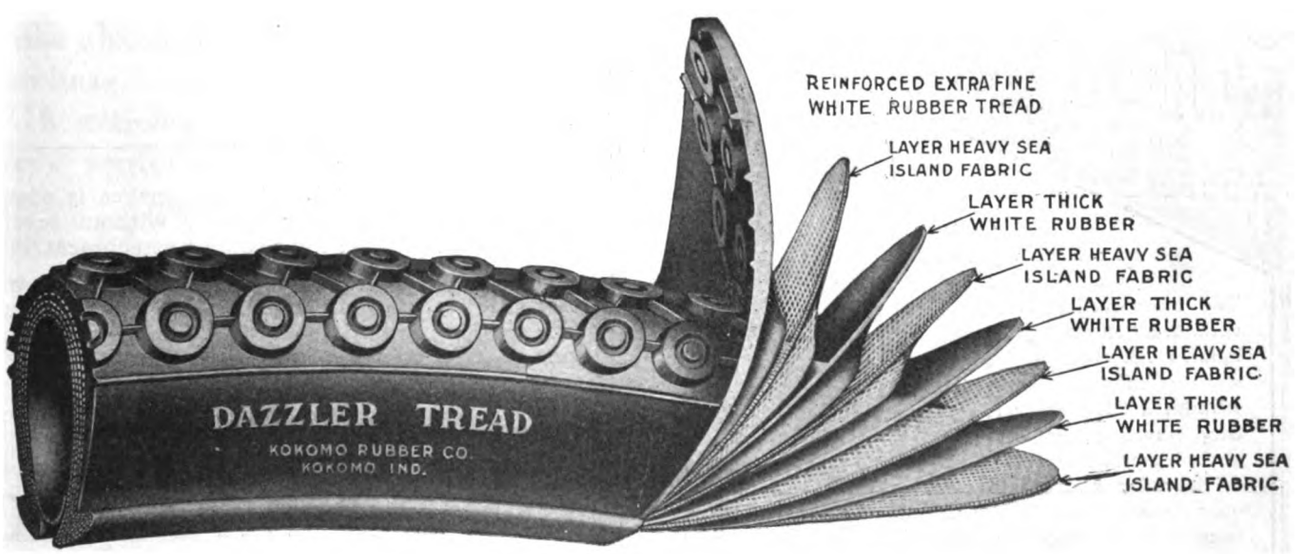

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Note the distinctive studs. Your eyes give you the most convincing testimony as to their efficiency as skid and side-slip preventatives. Your common sense tells you that it would be impossible to find a more effective tread. And give your close attention to the seven alternating layers of thick white rubber and heavy Sea Island cotton. Can you find anywhere a more efficient, business-like tire? (Chorus) NO!

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and the chances of shipwreck are greater on board the row boat than on board the battleship—

Yet the battleship will carry life-preservers while generally the rowboat won't.

The Automobilist who carries a

Schrader UNIVERSAL TIRE PRESSURE GAUGE

and uses it, is on a battleship and carries a life-preserver. The motorcyclist who does without a Schrader gauge and inflates his tires by guess work is in a row boat and without a life-preserver.

Stop inviting disaster and get a life-preserver.

A Schrader gauge will not only preserve the life of your tires, it may preserve yours.

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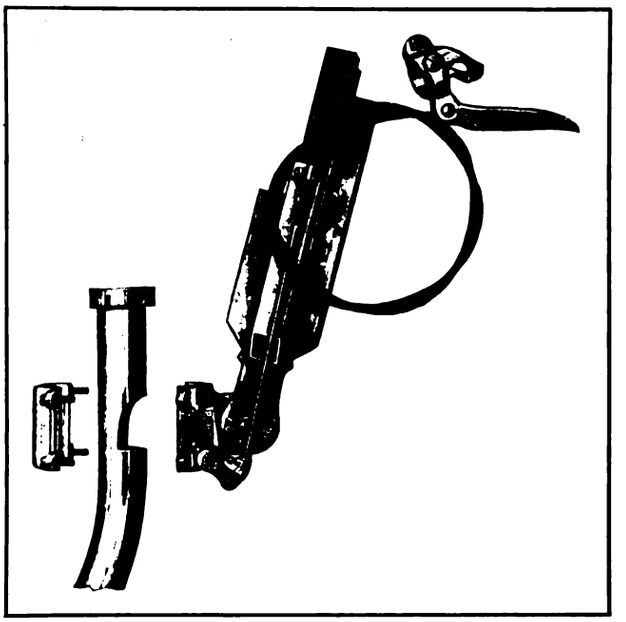

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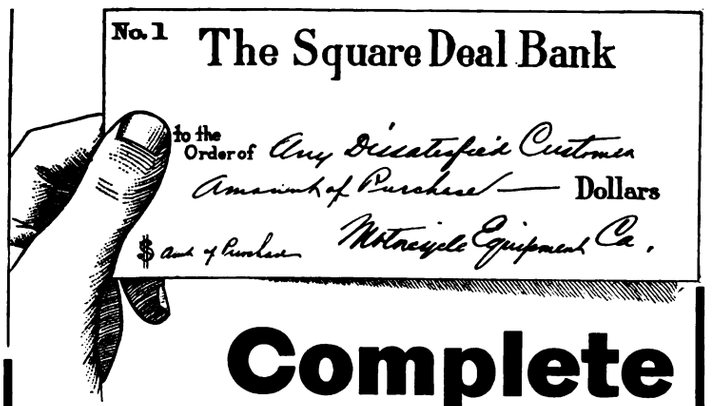

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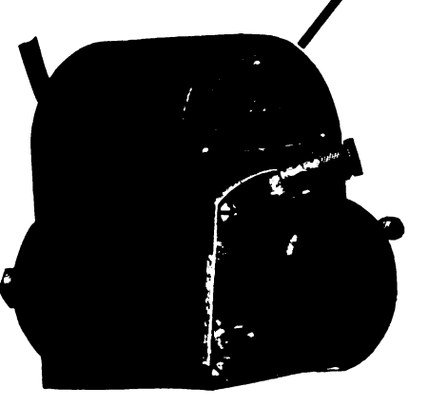

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Such a belt will end your transmission troubles. That's why you need a Wetpruf

Flat or "V"—one as good as the other. Same quality—same workmanship—and same broad guarantee.

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BECAUSE—It is guaranteed to do JUST WHAT WE CLAIM. THIS IS WHAT THE M&M ECONOMIZER WILL DO FOR YOU!

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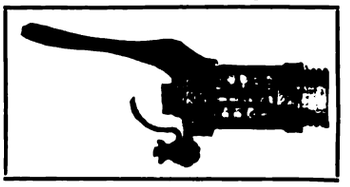


Patented in America

ASK THE MAN WHO OWNS ONE!

Save from 40 to 50% of gasoline.
Increase your speed and power 20%.
Eliminate the carbon deposit.
Act as an air-brake, when descending grades.
With the throttle set at twelve miles per hour, by opening the M&M, your mileage will be increased to EIGHTEEN or TWENTY miles, with the same amount of gasoline, and less carbon.

CAN YOU BEAT IT?

The M&M is nickel plated and highly polished. It requires ¼ in. pipe tap to insert into manifold, and is applicable to ANY MOTORCYCLE ON THE MARKET, with any carburetor.

WRITE FOR OUR CATOLOG

PRICE OF THE M&M—$1.25 Prepaid.
BEWARE OF INFRINGEMENTS!

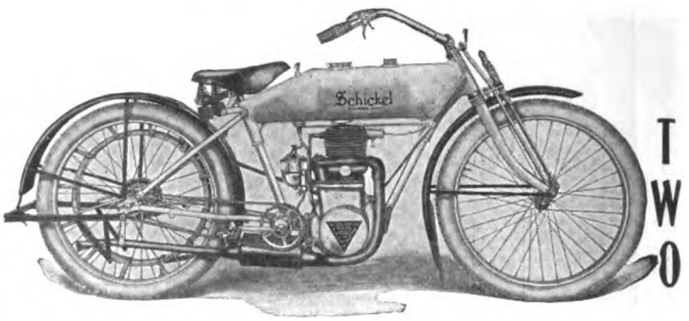
GUARANTEE—If the M&M proves unsatisfactory in 30 days, YOUR MONEY WILL BE REFUNDED. (Reference, Citizens National Bank, Lewistown, Pa.) No dealer or jobber is authorized to sell without our guarantee.

Moller Brothers Controller & Economizer Company

Main Office: 700 Betz Bldg., PHILADELPHIA, PA. Factory, LEWISTOWN, PA.

Schickel Schickel

VALVELESS



TWO STROKE

SERVICE

FIRST, LAST and ALL THE TIME

THAT'S WHAT Schickel MOTOR CYCLES ARE DESIGNED AND BUILT FOR

IF YOU WANT ABSOLUTE DEPENDABILITY WRITE TODAY, AND LET US TELL YOU ABOUT THE MOTOR WITH OVER THIRTY LESS WEARING PARTS

The Schickel Motor Company

59 GARDEN STREET STAMFORD, CONN.

Schickel Schickel

The Miller "Block Tread" Non-Skid Tire

Satisfies the demand for a stronger and larger tire. Its construction is such that it can withstand the most severe road conditions with minimum wear. **Prepaid to all Points.**

Miller's Non-Skid "Block Tread" Motorcycle Tires

Size	Tubes and Casings	Guaranteed	Heavy Red Tubes	Tube Casing
26x2½	"Block Tread"	.....	$2.60	$8.00
28x2½	" "	.....	2.75	8.80
28x2¾	" "	.....	2.85	9.75

Miller's Improved Adjustable Sectional Vulcanizer

One of the 37 kinds we manufacture. Repairs perfectly all sizes Bicycle, Motorcycle and Auto Tires and Tubes.

Our 44-page catalog, covering Auto Tires, Tire Repair Stocks and Tire Re-Liner, is yours for the asking. We also make the Standard Grade Tire, which is corrugated. This tire is lighter, but of the same quality of rubber and friction.

CHAS. E. MILLER
Anderson Rubber Works
ANDERSON, IND.

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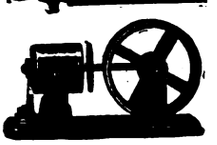
"The Electrical Magazine for Everybody"

Particularly interesting to motorcyclists

THE brightest and most interesting "plain English" electrical monthly magazine published, nearly five years old. 112 to 144 pages monthly, with a new department "with the inventor."

THE magazine to read if you want to keep up to date on wireless and progress in electricity. With one year's subscription to Modern Electrics for a limited time only we are making the following:—



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2 POCKET TOOL KIT. 47 Perfect Practical Splendid Tools. In handsome nickled case, pocket size, for pocket, desk, home, automobile or shop. All of fine steel. A 20th century marvel. FREE.

3 DOUBLE MAGNETIC REVERSIBLE ENGINE WITH SPEED CONTACT LEVER 1000 to 2500 revolutions per minute. FREE.

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A 10,000 mile Guarantee with every J-M SPARK PLUG

We guarantee every J-M Spark Plug to give ten thousand miles of perfect service. And we guarantee to replace any plug that proves defective either in workmanship or material.

This is the strongest plug protection you can get at ANY price, and the J-M Plug is the ONLY one on the market sold with such a broad and DEFINITE guarantee.

The "J-M" is also the **only plug with a double insulation** — mica and porcelain. Should one insulation break, the other will positively prevent short-circuit—even when current is supplied by a magneto.

All sizes of J-M Plugs can be used for either battery or magneto ignition. Sold by most dealers or shipped prepaid from our nearest branch. Price, $1.00 each.

Write Nearest Branch for Booklet

H. W. JOHNS-MANVILLE CO.

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DEVICES LEAD THE WORLD FOR EFFICIENCY and ECONOMY

SUPPLIED BY DEALERS EVERYWHERE

MONDEX-HELIX GAS MIXER

REDUCES YOUR GASOLINE BILLS 25 TO 40 PER CENT.

ON AND AFTER JUNE 15th PRICE OF MONDEX-HELIX WILL BE $5 ALL SIZES

The Mondex-Helix is the *only* device of its kind that is scientifically perfect and automatic in its action, yet made *without* any revolving, moving or complicated parts—requiring no attention whatever and which cannot get out of order. Also, it is the only device of its kind that may be installed quickly and easily without cutting piping, drilling or making any alterations in your motor. Send for Booklet "R."

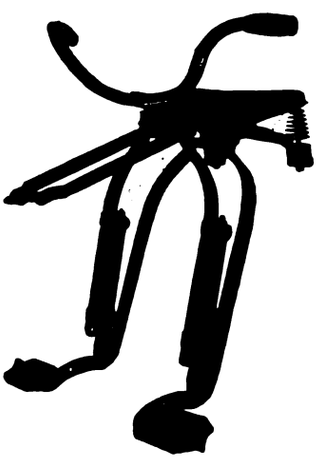
THE ARISTOS COMPANY

250 W. 54th Street **New York**

Simplicity—Comfort—Stability

The Empire Special

SPRING TANDEM



"IT FLOATS"

You wouldn't seriously consider purchasing a motorcycle that does not possess at least these three cardinal points. Then why permit a tandem attachment to be fitted on your machine, that has not proven to your complete satisfaction that it possesses these three characteristics in full measure? Here is

The Empire Special Spring Tandem

"IT FLOATS"

There is nothing about the Empire Special to get out of order. Simplicity is the keynote of its construction.

By a peculiar and ingenious invention, for which patents have been allowed, the Handle Bars and Pedals are caused to float with the saddle, insuring the maximum of comfort and smooth riding on the roughest of roads.

The famous Kelly No. 10 Adjustable Handle Bars are fitted on all Empire Specials.

Constructed of steel and no malleable parts, the Empire Special is practically indestructible.

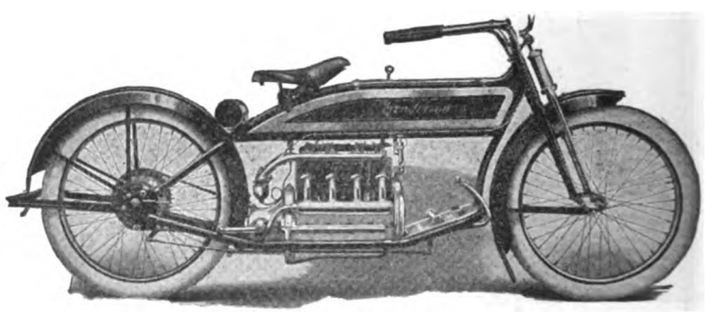
Ask your dealer for our booklet. If he hasn't it, send us his name and you'll get one by return mail. The Empire's proof of superiority is in it.

EMPIRE SPECIALTY COMPANY

Office, 147 The Arcade **CLEVELAND, OHIO**

CHAS. E. WEAVER, Sales Manager

Henderson



8 H. P., 4 cylinders, free engine, chain drive, $325.

Why Four Cylinders?

Because the motorcyclist wants three things—power, flexibility of power and easy riding.

The Henderson's four cylinders develop 8 horsepower—enough and to spare to go over any road or climb any hill you will encounter, and far more speed than you will dare use.

This power is flexible. You can throttle to walking speed and still it pulls. You can jump to high speed without nursing the motor.

Four cylinders produce less vibration than one. They are placed low, so the center of gravity is low. The machine rides easier and holds the road better; and the wheelbase is longer.

These things have given the Henderson national popularity. Write for the literature.

Henderson Motorcycle Company

1158 Cass Avenue **Detroit, Mich.**

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VICTOR OLD RELIABLE MOTORCYCLE LAMP

From sales and inquiries received at Chicago Show this lamp will undoubtedly exceed the tremendous success of the famous X-Ray.

A glance at specifications will convince every rider of the desirable features of this lamp—greatest of which is the enormous size, genuine mangin mirror, 6½" diameter, unheard of before in the history of motorcycle lamps.

Specifications.

Front diameter .....8¼"
Body " .....6½"
Size of lens .....6½"

Manufactured by

VICTOR AUTO PARTS CO.
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Selling Agents

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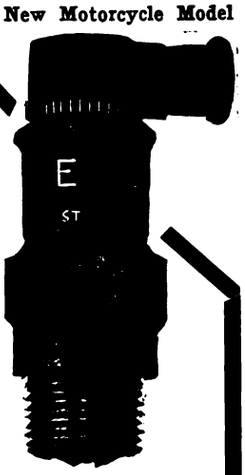
HERZ PLUG
New Motorcycle Model



Racing men and other motorcyclists who know that it pays to be particular about their Spark Plugs have long insisted upon using

HERZ PLUGS

"Bougie Mercedes"

These Plugs are now in their twentieth year—twenty years showing a continuous record of efficiency and steady improvement.

The new model has a completely protected terminal which renders it dustproof and waterproof and obviates the possibility of short-circuiting.

Other important Herz features are the Four Sparking Points, the Platinum-Alloy Electrode, the Self-Cleaning Construction, and above all the Unbreakable Blue Enameled Double Stone Insulation.

Since 1894 the standard of Europe and America

$1.50

At all good dealers or direct

GUARANTEED A FULL YEAR

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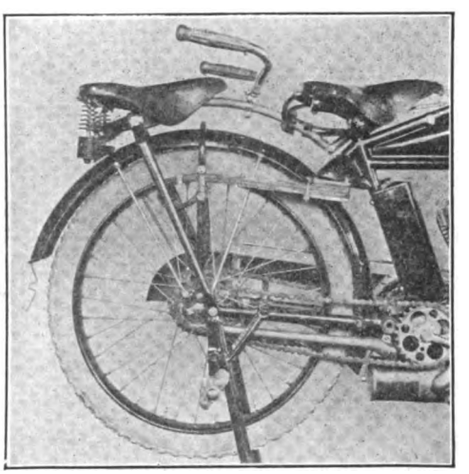
Makers of HERZ MAGNETOS

"Whitney" Chains are made from steel best adapted for the purpose, carefully hardened and calculated to resist the most wear, while in the matters of machining and assembling the utmost care is exercised and thorough inspections characterize each process of manufacture.

When making replacements insist on a "Whitney."

The Whitney Mfg. Co.
Hartford, Conn.



Model A. Patent Pending.

MUELLER TANDEM ATTACHMENT **TO FIT ALL INDIAN MOTOCYCLES**

Specially Adapted to New Spring Frame Models

MODEL A attachment is for 1913 spring frame machine and does not interfere with frame action. Attachment is made of steel tubing and drop forgings, well brazed—enameled and nickeled. Large Troxel motorcycle saddle, adjustable handle bars, standard No. 3 pedals. Enameled red to match motorcycle.

L. J. MUELLER 6307-09-11 Woodland Ave. CLEVELAND, O.

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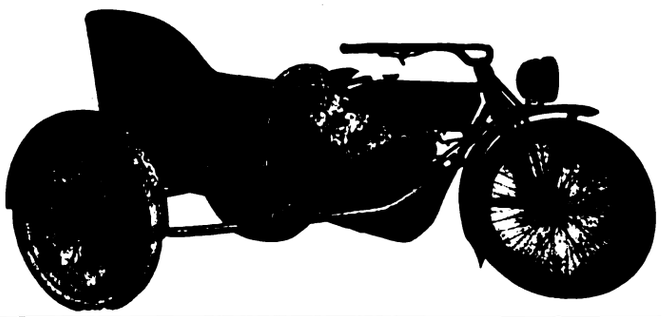
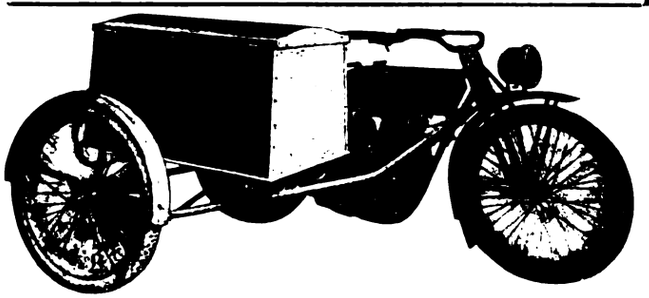


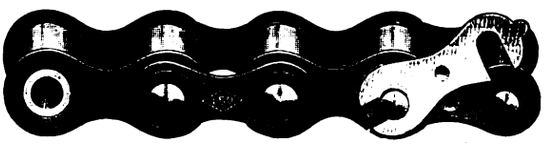
"ANDERS"

From both a business and pleasure standpoint, the Anders line of sidecars has tremendous opportunities. Their substantial yet graceful construction, the unique "rocker motion" which immediately puts them at the head of the line in the comfort class, and, finally, the reasonable price at which they are sold, makes them a proposition which no clear-thinking dealer can afford to overlook. Get our booklet today.

National Cycle Accessories Co., Aurora, Ill.



No. 150 DIAMOND CHAIN



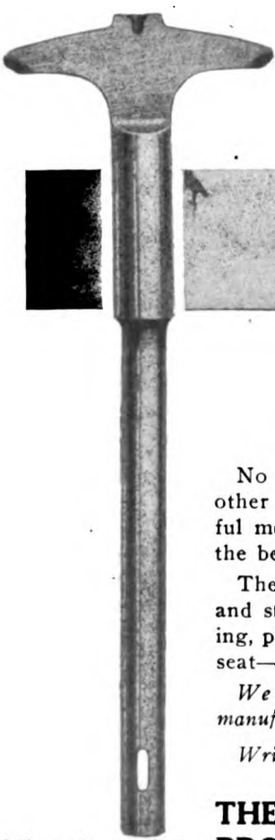
DESIGNED ESPECIALLY FOR MOTORCYCLES

This chain is the particular choice of motorcycle riders who use their machines day after day, in all kinds of weather—because it is known to be dependable under all conditions.

Diamond Chains are for sale by all leading supply houses. When you order be sure to look for the trade mark on every link.

TRADE ◇ MARK

DIAMOND CHAIN & MANUFACTURING CO.
227 W. GEORGIA ST. INDIANAPOLIS, IND.
CAPACITY 8,000,000 FEET PER YEAR



Split section of head showing cast iron rim.

A MOTORCYCLE depends on its VALVES for power

No matter how much you spend on other parts you cannot produce a powerful motorcycle unless you equip it with the best valves.

The special formula steel in the head and stem of this valve overcomes warping, pitting and breakage. The cast iron seat—welded on—minimizes pitting.

We make this valve in quantities for manufacturers only.

Write for our prices.

THE ELECTRIC WELDING PRODUCTS CO., Cleveland, O.

Results!

If you want to dispose of your machine promptly—if you want to exchange for another—if you're looking for a position or have one to offer—an ad. in

The Mart

will bring RESULTS. Three cents a word for a single insertion, two cents a word for two or more insertions.

Minimum charge, 50c.

MOTORCYCLE MART, 51 Chambers St., N. Y.

Afford Perfect Traction— Prevent Slipping and Skidding

Mud, sand, slippery pavements or snow will not spoil your sport if you always carry **Weed Chains.**

Easily carried, as the small bundles they make in their canvas bags take so little room that they could be carried in your pocket, when not in use, without inconvenience.

Order them from your dealer or write Dept. B for particulars

Weed Chain Tire Grip Co., 28 Moore St., New York

WEED ANTI-SKID CHAINS FOR MOTORCYCLES

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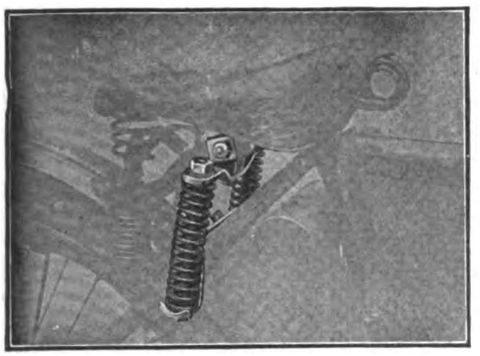

Y-A Shock Absorber, $5

For Road Comfort

MODERNIZE YOUR OLD MODEL

THE Y-A shock absorber eliminates rear-wheel jolts and gives comfort on all roads. It can be fitted to practically any machine of the better kind, and makes old models up to date. Give make and model of machine when ordering. Price, $5.

Dealers and jobbers can increase their profits by fitting Y-A Shock Absorbers to old machines. Write for our proposition.

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The Most Distinctive, Most Penetrating and Most Positive Warning Signal on the Market.

"Acme Siren"

$5 at All Dealers

Sarco Engineering Co. 112 Broad St., N. Y.

Price, Complete, **$19.00**

Tandem and Back **Rests** to Attach to **1913** Indian, Pope and **Flying** Merkel **Luggage** Carriers. Price, $13.50.

"TRIO"

Motorcycle Attachment

A combination tandem attachment, back-rest and luggage carrier. It fits all makes of motorcycles and is attached in a few moments without complications in use of special tools. Springs give a maximum of comfort and back-rest renders motorcycling a **joy.** Enameled to suit color of machine. Order now. State name and model of machine; also brake used. Send certified check or money order. Deposit of $5.00 on C. O. D. order. Big thing for dealers.

TRIO EQUIPMENT COMPANY

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Motorcycle Supply Magazine

IT'S MORE THAN A CATALOG

If you haven't our New 1913 Catalog of Motorcycle Equipment you are evidently going to lose money this season. We have prepared a 40 page catalog chock full of the things you want, and, in the majority of cases, at prices cheaper than you would pay in your own town, even though you have to pay express or postage.

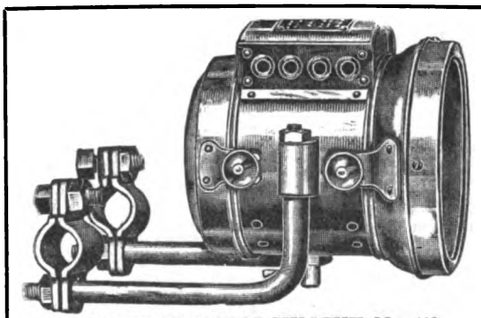
We are in the Center of the United States and transportation is cheap in any direction.

Our goods are standard, our prices honest and what we sell is guaranteed to give you satisfacion. Write a postal now.

ASK FOR THE "YELLOW SHEET."

SAUFLEY SUPPLY COMPANY

622 EAST 15th STREET KANSAS CITY, MO.



MOTORCYCLE SEARCHLIGHT No. 102
Showing Back Closed

20th Century Mfg Co

20th Century Lamps

(Motorcycle and Bicycle)

Foremost in Efficiency, Economy

Have you seen our new Improved Bicycle Lamp? It's a revelation in fine lamp construction.

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NEWARK, N. J.

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AND SPECIALTIES

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KOVERAUL GARMENTS COMPLETE

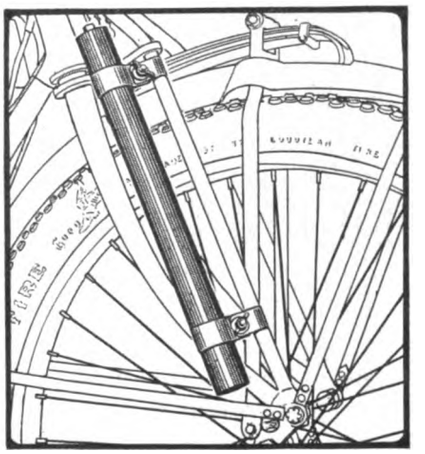
made of the best quality Olive Drab Khaki at **$7.50** and made of the famous NATHAN Olive Drab "NEVERLEAK" at **$9.00**

THE NATHAN MOTORCYCLE SUITS

are the best made. If they were not I would not personally guarantee them. Complete Norfolk coat and riding pants, made of best quality Olive Drab Khaki at **$6.50** and made of the famous NATHAN Olive Drab "NEVERLEAK" at **$8.50**

at all good dealers. If your dealer will not supply you, send direct to us. Send today for our NEW CATALOGUE.

NATHAN, 84 to 90 A. Reade St., N. Y. C.



DON'T GET STRANDED

Carry the NON PUSH GASOLINE TUBE with you

Price, $1.50 with Brackets.

Weight, 16 ozs. Size, 1½ x 15 inches, holds enough gasoline to run 8 to 10 miles. Can be attached to various out of way places on any make machine. (Specify make with order.) Made of Fine Nickel Plated Brass.

Sent prepaid for $1.50, stamps or money order.

Originated and made by the

PARISIAN NOVELTY CO.

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Billings & Spencer Tools

"THE TOOLS THAT ARE GUARANTEED"

A compact tool for motorcyclists. Four sizes of screw drivers contained within the handle. Blades are pivoted to the slide, and cannot be removed or lost. Total length when closed 3⅞ in.

(WRITE FOR CATALOG)

The Billings & Spencer Co.
HARTFORD, CONN.

MOTORCYCLE RIDERS ATTENTION

Do you want to eliminate your Spark Plug troubles, and so promote the pleasures of motoring? This is the Spark Plug that 85% of the motorcycle manufacturers are using on their 1913 machines.

Monarch Mica Motorcycle Spark Plugs

COST 75c. EACH

For $1.00 we will send you two spark plugs to try out. Order now—the offer will be withdrawn in a few more days.

BENFORD MFG. COMPANY
Dept. "B" Mt. Vernon, New York

SPECIAL OFFER CONTINUED

Makes Any Machine Speed Faster, Climb Easier, Run Smoother

HARRIS

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OILS

A Little Goes a Long Way and Every Drop Counts

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143 No. Wabash Ave., CHICAGO, ILL.

The Hagstrom Spark Plug

"It Shows What Your Motor Can Do"

No other spark plug brings out the true efficiency of your motor as does the Hagstrom. Its clean, crisp, sizzling spark finds every atom of charge in your motor's cylinders. It gives more power on less gasoline.

The porcelain and mica feature is an exclusive Hagstrom idea.

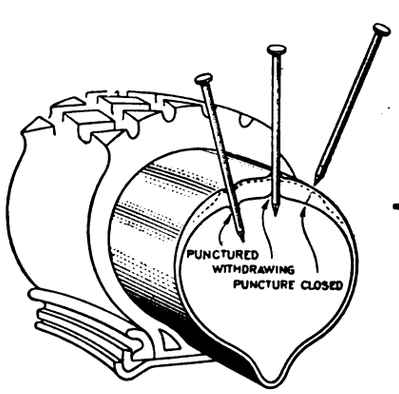
The electrodes are genuine imported "Meteor" metal—so expensive that few plug makers are using it.

The "Hagstrom" is the regular equipment on 1913 "Yales"—"Marvels"—"Indians" and "Velies."

Your dealer has them or will get them for you.

The Hagstrom Bros. Mfg. Co.
Box 144, Lindsborg, Kan.

$1.00 EACH



Brown Scientific Non-Deflating Pneumatic Tube

AN AIR-FILLED MOTORCYCLE TUBE POSSESSING VERY UNUSUAL FEATURES:

First: It withstands a tread puncture without deflating the tube.
Second: The higher the pressure the tighter the puncture closes.
Third: It eliminates the risk of destroying casings by reason of punctures.
Fourth: The danger of loss of control of machine is removed.
Fifth: It assures you of not being obliged to repair a puncture on the road and gets you "there and back" on full tires.

AIR FILLED ONLY.

Punctures are self-closing by reason of a scientific but simple principle of construction.

NO "DOPE," GUM, PASTE OR OTHER STUFFING MATERIALS

Write for prices, full description and sectional sample

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A GOOD EXHAUST CHIME

Is essential to the proper attachments of your motorcycle and to your safety.

ORDER A GENUINE

BARCO Exhaust Chime

Attach it in 30 minutes and enjoy it all summer.
Note the simple construction.
Note the 3-tone chime with all tones in one tube.
Note the unobstructed exhaust passage of the valve.
Reasonable in price. Prompt delivery.

BARCO BRASS & JOINT CO., Chicago

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Atlas Spec. Mfg. Co.

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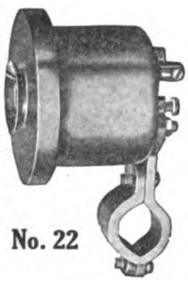
Samson
Electric Motorcycle Horn

Loud—Simple

Every Motorcycle needs a good loud signal. Our No. 22 Samson Horn has solved the problem—thousands are in use and they have proven uniformly satisfactory. They are not a toy, but made for practical everyday work—minimum current—maximum tone.

Liberal Discounts to Dealers



No. 22

Strong—Reliable

A push furnished, can be mounted on grip or handlebar. Also 4 ft. of duplex flexible cord ready for insulation. (This horn cannot be run off of magneto.)

Two or three dry cells furnish enough current.

Price complete,

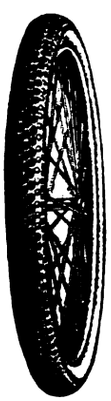
$5.00

Nickel plate finish.

No battery or carrying case included in price.

AMERICAN ELECTRIC COMPANY, Manufacturer

STATE and 64th STREETS, CHICAGO, ILL.



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Be your own judge—don't take anyone's word for it. *"The proof of the pudding is in the eating."*

Perfect Score in 4 Glidden Tours

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It only costs one cent to learn our prices and guarantee on "Brictson" Detachable Treads.

Write Today for Full Particulars.

THE BRICTSON MFG. CO.

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The New "N. A." BREEZE

Delivers a larger volume of properly mixed gas than any other motorcycle carbureter in the market.

Works Perfectly When Throttled Down to 230 Revolutions Per Minute.

At over 3,500 revolutions it is just as effective.

All air ports have been enlarged.

A perfect mechanical device to increase gasoline supply automatically with the opening of the throttle has been fitted.

Send for free catalog. Our Engine Trouble Text Book, 54 pages, will be mailed for 10 cents.

BREEZE CARBURETER CO., Newark, N. J.

There Are Times When Ignorance Is Not Bliss

Let us enumerate:

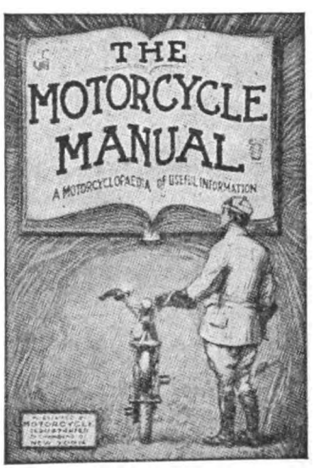
For instance, on a sweltering day while you're happily breezing along, your motor suddenly develops the "fidgets." You get off and investigate. If you know all about a motor's internal construction and are "wised up" on how to handle a cranky magneto, and know all there is to know about the carbureter—you will EVENTUALLY locate the trouble. But if you don't—you're STUCK!

Then is the time to dig into your tool box and consult your tried and true friend, the

MOTORCYCLE MANUAL

Its trouble chart tells how to locate the trouble and REMEDY IT. It tells all there is to tell about every part of your motorcycle. It gives concise information regarding license laws in every State in the Union. It gives the official racing records. It explains horsepower and other mechanical formulae; it is a handy motorcycle trade directory; it enlightens you as to the F. A. M.—who's who and what he is doing—it—oh, well!—do you think you can afford to be without it?

And it costs a quarter. What are you going to do about it?



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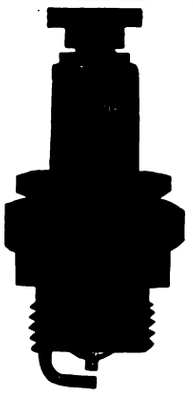

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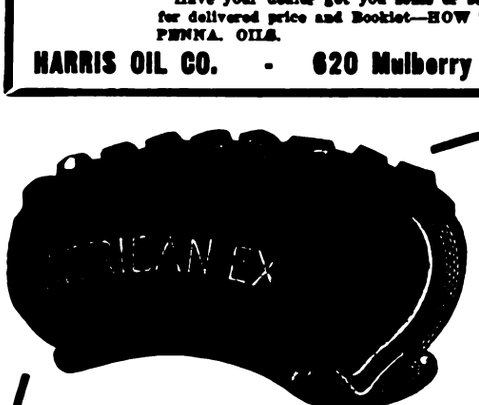

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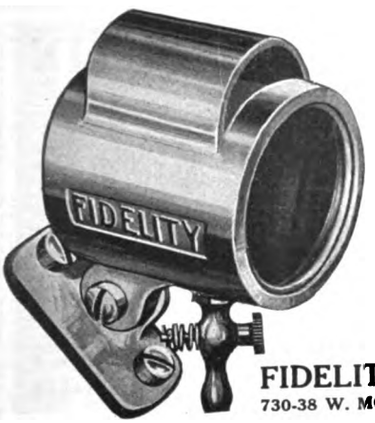

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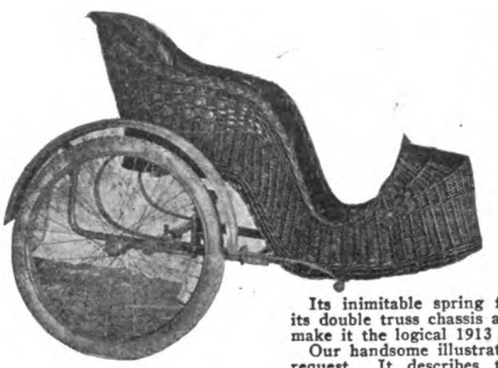

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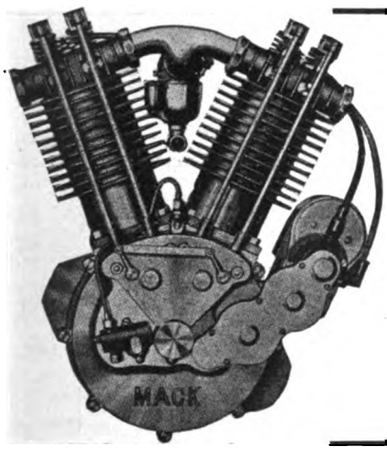

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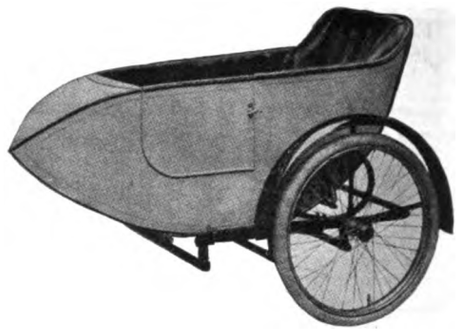

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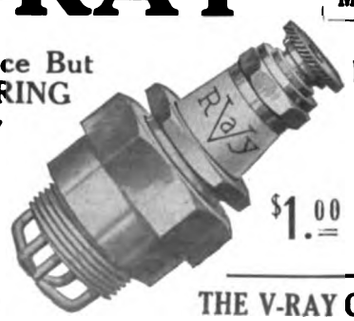

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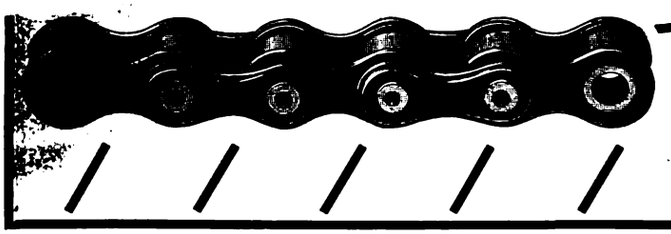

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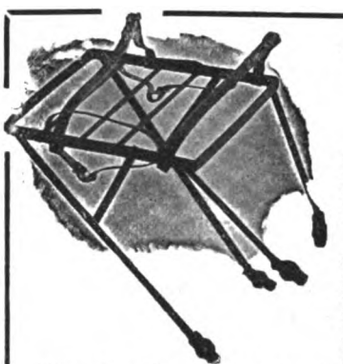

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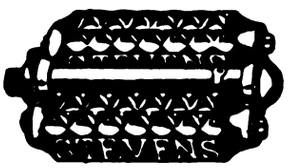

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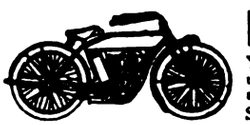

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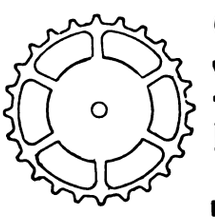

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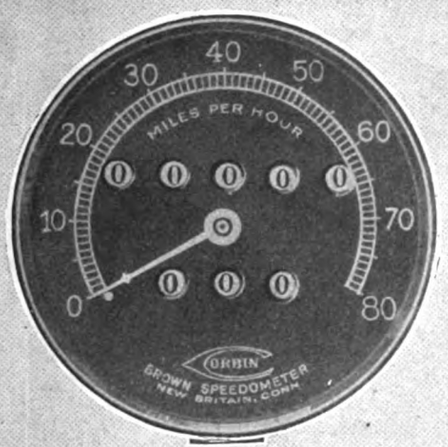

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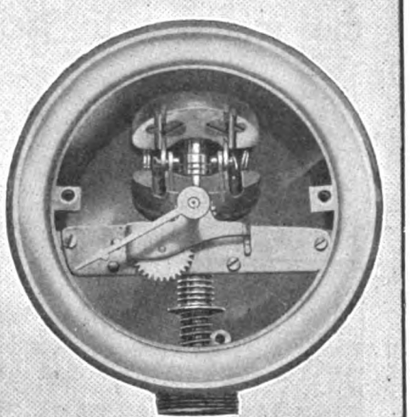

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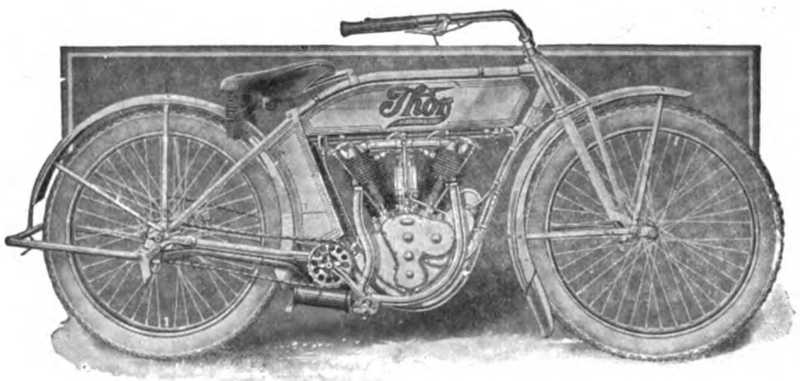

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Thor

Patented Undergeared Internal Direct Transmission

you will realize what good service means. Jerks and jars are eliminated—giving you about twice the pleasure and comfort from your riding and practically eliminating mechanical trouble. Just give us an opportunity to show you—then compare the ***Thor*** with others. You cannot possibly get as much value for your money invested in any other machine—and we will prove it to you any time you wish.

MODEL 13 M
Four H.P. Single Cylinder Machine
$225.00

MODEL 13 W
Five H.P. Single Cylinder Machine
$240.00

MODEL 13 U
Seven H.P. Twin Cylinder Machine
$290.00

Aurora Automatic Machinery Company

General Offices: Thor Building, 1307 Michigan Avenue, Chicago, Illinois

Pacific Coast Distributor: Pacific Motor Supply Co., 1440 Market St., San Francisco, Cal.
New York City Distributor: New York Motorcycle Co., 782 Eighth Ave., New York, N. Y.
Boston, Mass., Distributor: W. F. Mann Motor Co., 356 Columbus Ave., Boston.

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Another Wonderful Record

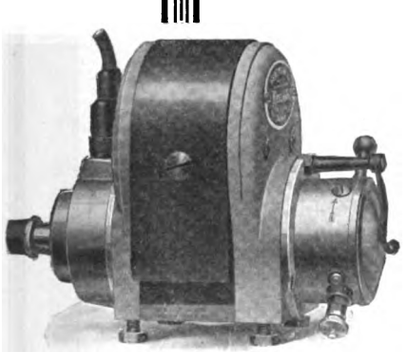
has been made with

HERZ MAGNETO

On May 15th and 16th, M. E. Gale and passenger, on an Emblem Twin, rode from Angola, N. Y., to Boston, Mass., a distance of

600 Miles, in 19 Consecutive Hours

About 350 miles of the run was made through terrific rain storms and over roads absolutely indescribable in their wretchedness. Even under such adverse conditions, no trouble whatever was experienced on the road.



HERZ MAGNETO can be depended upon day in and day out, in all kinds of weather and upon all sorts of roads. Our claim that it is not only dustproof but absolutely waterproof was proved conclusively at this winter's New York and Chicago Shows, when a HERZ MAGNETO ran for 16 days completely submerged in water. Without exception, this is the strongest Magneto of its size and weight in the world.

HERZ & CO., 295 Lafayette St., NEW YORK

Makers of the HERZ PLUG

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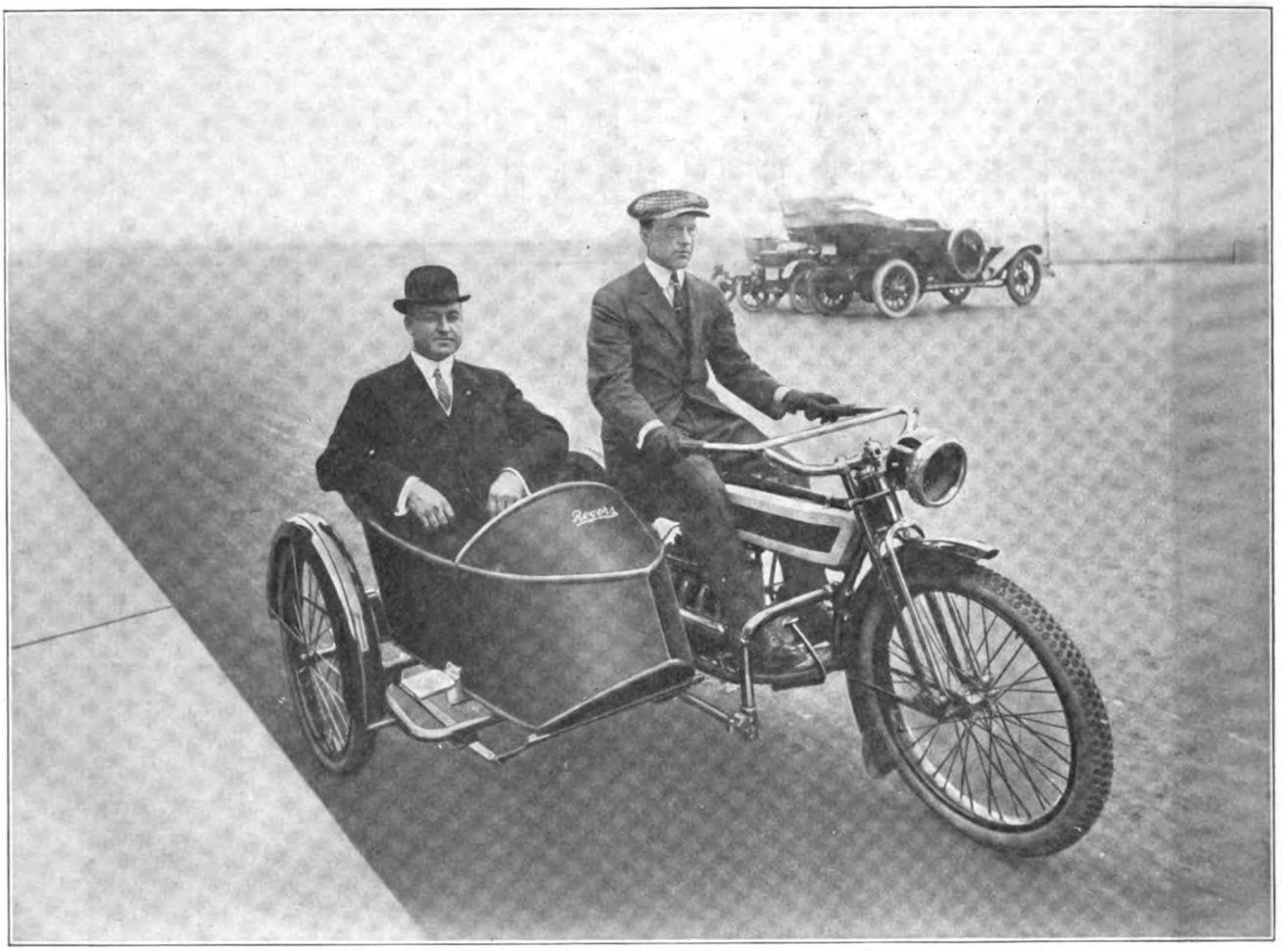


John P. Garner, president Henderson Motorcycle Sales Co., in Rogers Side Car with J. E. Bice, vice-president of same concern on Henderson Motorcycle.

Wins Motorcyclists' Highest Endorsement

The Rogers Motorcycle Side Car has won the endorsement of leading motorcycle manufacturers, dealers and users, throughout the country.

The letter printed on this page is typical of the enthusiastic comment received daily on this wonderful Side Car.

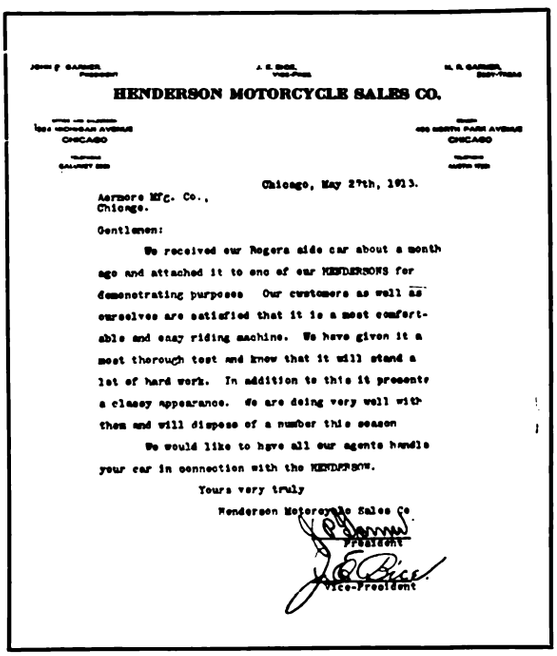
Alert, up-to-date motorcyclists are equipping their machines with side cars this season. Scores are selecting the Rogers because of the endorsement given it and the fact that it offers so many values for a moderate price.

ROGERS MOTORCYCLE SIDE CAR

The Rogers has a beautiful and spacious automobile body. Its superior and distinctive construction gives comfort, ease of riding and safety. It will make Her supremely happy to ride in a Rogers, **by your side with unobstructed vision ahead.**

Write today for instructive Rogers booklet. We will send it together with the name of our dealer in your locality. If we are not represented there, we will fill your order direct.

Every dealer should order a Rogers for demonstrating purposes. One Rogers sells ten. It will greatly increase your business.



HENDERSON MOTORCYCLE SALES CO.

CHICAGO — CHICAGO

Chicago, May 27th, 1913.

Aermore Mfg. Co.,
Chicago.

Gentlemen:

We received our Rogers side car about a month ago and attached it to one of our HENDERSONS for demonstrating purposes. Our customers as well as ourselves are satisfied that it is a most comfortable and easy riding machine. We have given it a most thorough test and know that it will stand a lot of hard work. In addition to this it presents a classy appearance. We are doing very well with them and will dispose of a number this season.

We would like to have all our agents handle your car in connection with the HENDERSON.

Yours very truly

Henderson Motorcycle Sales Co.

President

Vice-President

Aermore Manufacturing Company, Dept. 579-A, 153-155 W. Michigan St., Chicago

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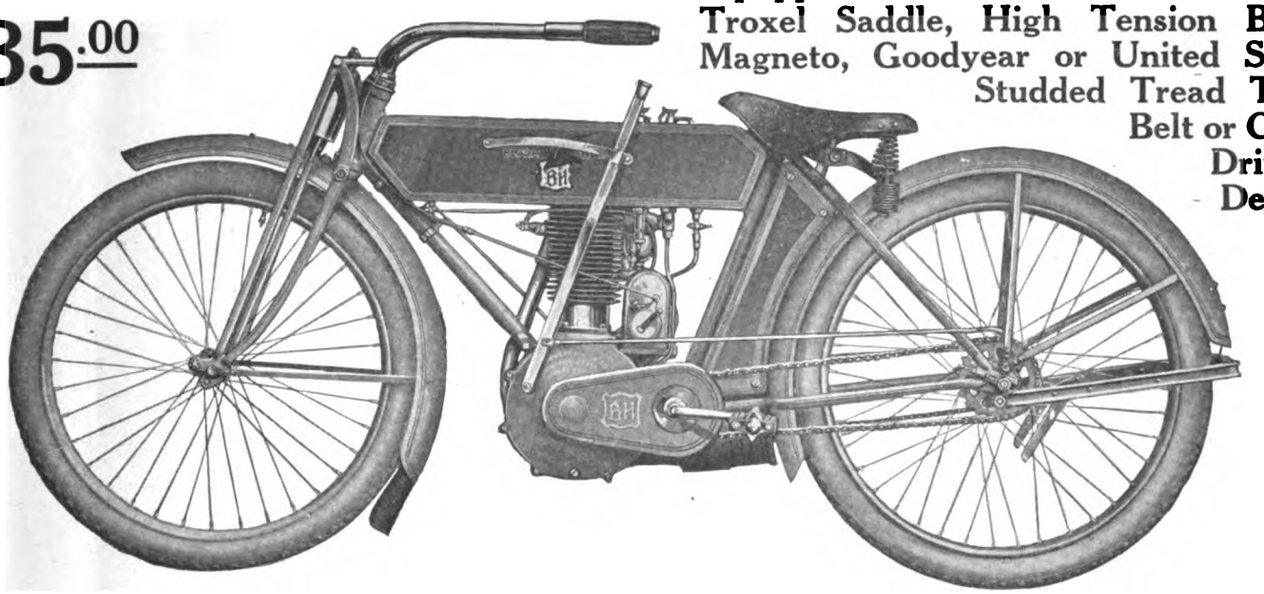
$235.00

Equipped With Schebler Carbureter, Troxel Saddle, High Tension Bosch Magneto, Goodyear or United States Studded Tread Tires, Belt or Chain Drive as Desired



Blaze Your Way To Greater Motorcycle Sales With "Black Hawk"

Live-wire dealers everywhere are grasping the local sales-rights of this new motorcycle, designed by the oldest, wisest heads in the motorcycle world.

The "Black Hawk" is the motorcycle all masters of motorcycle craft impatiently awaited for over a year and a half. It is the masterpiece of the acknowledged geniuses of the motorcycle world—a wonderful achievement.

The "Black Hawk" Is the Motorcycle Sensation of 1913

The success of each "Black Hawk" agent is **sure**—because the supremacy of the "Black Hawk" is **certain.** No other motorcycle shown in 1913 combines within itself so many **new** features that appeal so forcibly to riders—so many innovations that are such **real improvements.**

Check these improvements over—as they are noted in the panel to the right. Then act quick—don't let "the other fellow" beat you to this sure, easy sales-maker. Time is slipping—don't let it slip this opportunity through your fingers. Write today.

BLACK HAWK MOTOR CO.

Dept. B Rock Island, Ill.

"Black Hawk" Betterments That Bring Bigger Sales to "Black Hawk" Dealers

Spring Forks and Seat Posts designed so uniquely that they cannot "bottom"—that they cannot break.

Free Engine Clutch—instead of an unsightly bump on engine shaft or side of machine, clutch is **on the inside of rear hub**—thoroughly protected—most durable, being of the multiple steel disc type. This clutch is **lubricated while slipping,** thus avoiding wear and tear on engine and whole machine.

Most Flexible Motor—as fast and almost as silent as thought, yet extremely flexible, handling machine flawlessly at all speeds from 50 to 60 miles to 4 miles per hour without use of clutch.

Steel Oil and Fuel Tank Built Integral With Frame—enabling saddle to be placed low without sacrificing strength or beauty of frame—and also making the "Black Hawk" balance **almost** as perfect as that of a fine watch.

Sight Feed Mechanical Oiler—our exclusive position automatic oil pump, with only one moving part, cannot clog, always furnishing perfect lubrication, with oil flow increasing automatically as speed of machine increases, the flow stopping when engine stops.

Send for Free Catalog

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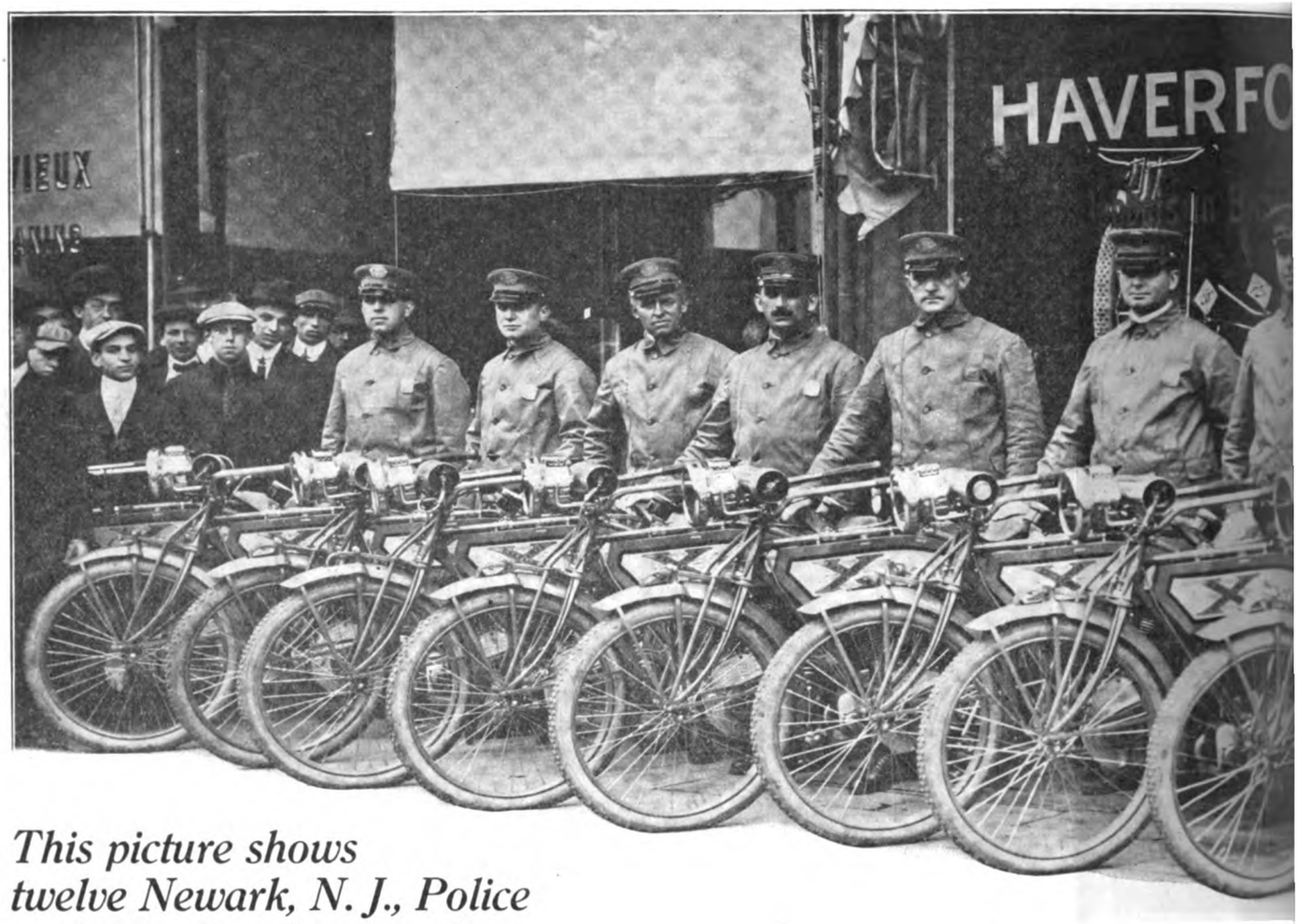

This picture shows twelve Newark, N. J., Police and their Excelsiors. They are prepared for any emergency

How Competitor A Great Excelsio

The Newark, N. J., Police Dept. was satisfied to place its order for 12 Twin Excelsiors after the "Ex" had beaten all competitors in the two mile speed contest which was to decide the order. But one of the beaten contestants alleged that the winning "Ex" had been doped to make it speedier.

The Haverford Cycle Company—the local "Ex" agency—was more than willing to have the race re-run.
Again the "Ex" won. Once more did competitors for the order get peevish. This time it was claimed that the rider who won was a "professional" rider.

SEE THE "EX" DEALER OR W

Excelsior Motor Manufacturing & Supply Compa

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"The Excelsior Always Makes Good"

Made

Victory Still Greater

Again our local agent consented to another race—even after the order *was his.* Here was a chance to make a great victory still greater. So a third race was arranged and in order to prove beyond any doubt that the "Ex" could do it again, a policeman was mounted on a fresh "Ex" straight from the crate, and easily *won.* The Excelsior that you buy is as good in every particular as the machines sold the Newark Police. The above is another big reason "Ex" dealers make big sales.

Write today for our "open territory" proposition—maybe you can secure the agency for the "Ex"—the world's greatest auto-cycle.

)R FREE ART CATALOG

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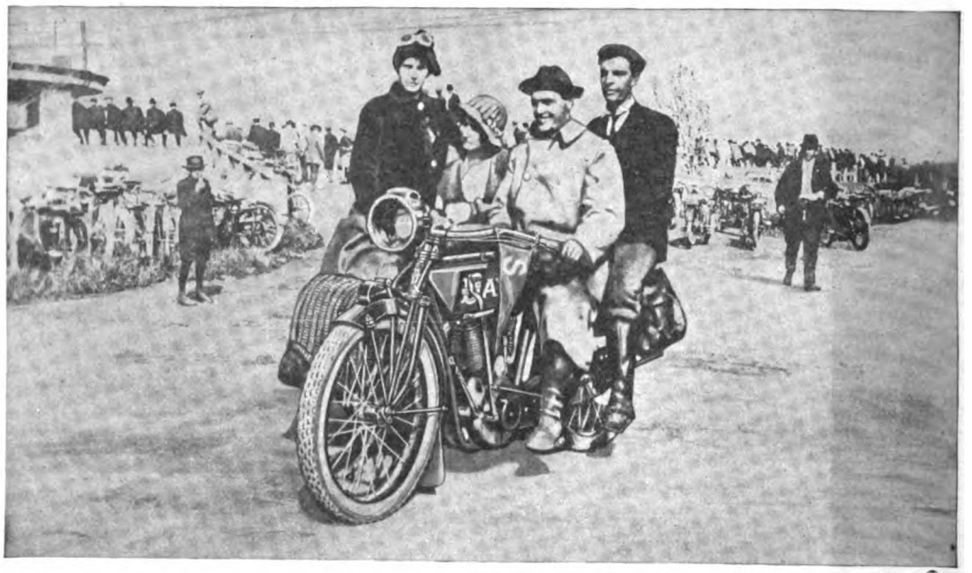
280 Miles Over Mountain Roads With Four Passengers



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SEWING MACHINES

W. E. & W. H. JACKSON

SEWING MACHINES, BICYCLES
AND SUPPLIES

PHONE DOUGLAS 3686

628 THIRD STREET
SAN FRANCISCO, CAL. April 28th, 1913.

The Davis Sewing Machine Co.,
Dayton, Ohio.

Gentlemen:

It will probably be of interest to you to know of the splendid showing made by a Dayton Motorcycle on a trip to Sacramento and return the distance being 280 miles.

The photograph was taken at the Sacramento Motorcycle Race meet Apr. 26 & 27 and shows W.E.Woods and wife and Jos. Mather and wife. This machine was equipped with a side car carrying the two ladies and with Mr. Woods the owner driving and Mr. Mather on a tandem - four passengers in all. The total weight of passengers & luggage was 635 lbs., in addition to which was the side car attachment. Notwithstanding this load the average time made was 30 miles per hour, which is all the more remarkable as there were two heavy grades to negotiate over the Altamont & Dublin Hills. The machine took these grades with ease carrying all four riders, passing some twins that could not even make the grades with but two passengers. The owner of the DAYTON, Mr. Woods who is seated on the saddle in the photo, has owndd and ridden most every type of Motorcycle, but is now a DAYTON booster as this trip demonstrated the strength & power of the DAYTON and accomplished what had never been done before - a Motorcycle carrying four passengers to Sacramento and back.

The writer inspected the machine to-day and it is in perfect condition, notwithstanding the strain to which it was subjected, and the frame is in perfect alignment.

Yours very truly,

W. E. & W. H. Jackson,

W. E. Jackson

HERE is Further Proof of the Strength, Reliability and Endurance of the Dayton

WRITE FOR CATALOG

THE DAVIS SEWING MACHINE CO.

Department B — DAYTON, OHIO

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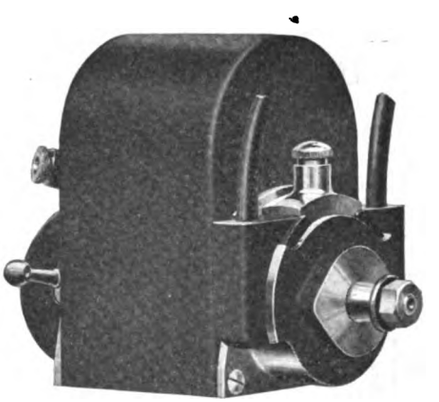
The Berling Magneto

We put a "Baby Berling" Motorcycle Magneto on a 48 horsepower automobile and ran it efficiently for weeks—often with five people in the car.

Some test, isn't it? For "pep, power and permanence" insist on a BERLING.



Ericsson Manufacturing Co.

1115 Military Road Buffalo, New York

Write *Today* for Free Illustrated Booklet

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Year After Year, the

AGAIN the "Big Y" made a clean sweep in the annual Memorial Day endurance run of the New Jersey Motorcycle Club. The two days' grind over 465 miles of steep hills and miserable roads, made a test so severe that **the Yale was the only machine which had all its starters to finish the run.**

Also, for the **fourth consecutive year,** the manufacturers' team trophy was won by the Yale team, George Riechey and P. W. and O. W. Stevens. It was a "hands-down" victory, with no other team able to approach its score, for the Yale was the **only team of which all three riders finished.**

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Yale Wins on the Road

Yale Riders in New Jersey Two-Day Run, Left to Right: C. A. Leander (individual rider), and the Yale team, O. W. Stevens, George Riechey, and P. W. Stevens.

In such searching competition against the best riders and machines of all the others, the Yale made good just as we knew it must. When a machine is built as the "Big Y" is built, with the most expensive and carefully-selected raw materials for every part, built by the expert skill of highly-paid, experienced mechanics, it cannot help but succeed. Its service excels that of others just as its construction does.

CONSOLIDATED MFG. CO.

1730 Fernwood Ave., Toledo, Ohio

Eastern Representative, . F. C. Cornish, 219 Clinton Ave., Newark, N. J.

Pacific Coast Rep., . . The Yale-California Co., 511-512 L. A. Investment Bldg., Los Angeles, California

Makers also of Yale and Snell Bicycles, Hussey Handlebars, Steel Tubing, Bent Parts, and All Kinds of Drop Forgings

EVERY Yale is built to succeed. With a "Big Y" you can start every road run, every contest, with full confidence because you know that your mount has the supreme road ability that has won decisively all the biggest contests of years, and that has made it National Road Champion.

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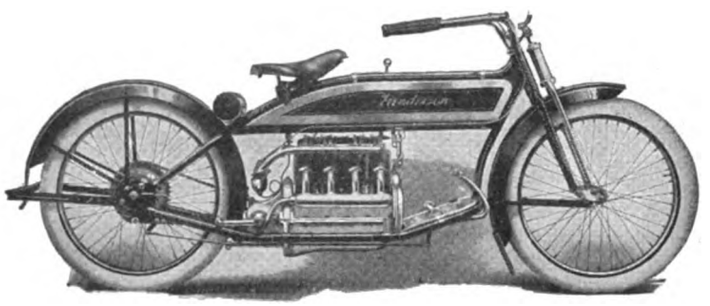
HENDERSON



8 H. P., 4 CYLINDERS, FREE ENGINE, CHAIN DRIVE **$325**

Why Henderson popularity is sweeping the country

It is not difficult to explain the widespread grip the Henderson has taken on the nation's motorcycle business.

It is directly due to the Henderson's advantages of no noise, no vibration, little or no road shock, the easy riding produced by the combination of a low saddle, long wheelbase and 3-inch tires; no waste of power, and a motor flexibility possible only with four cylinders.

These, in turn, are the results of structural features lacking in the ordinary motorcycle:—

The 8 H. P., 4-cylinder motor, low center of gravity, chain drive, continuous development and application of power.

These features appeal powerfully to the buyer; he really wants them.

These features have sent a wave of Henderson popularity sweeping the country that will reach you sooner or later.

The Henderson letter will help you understand better the Henderson advantages. Write for it.

Henderson Motorcycle Co., 1170 Cass Avenue, Detroit, Mich.

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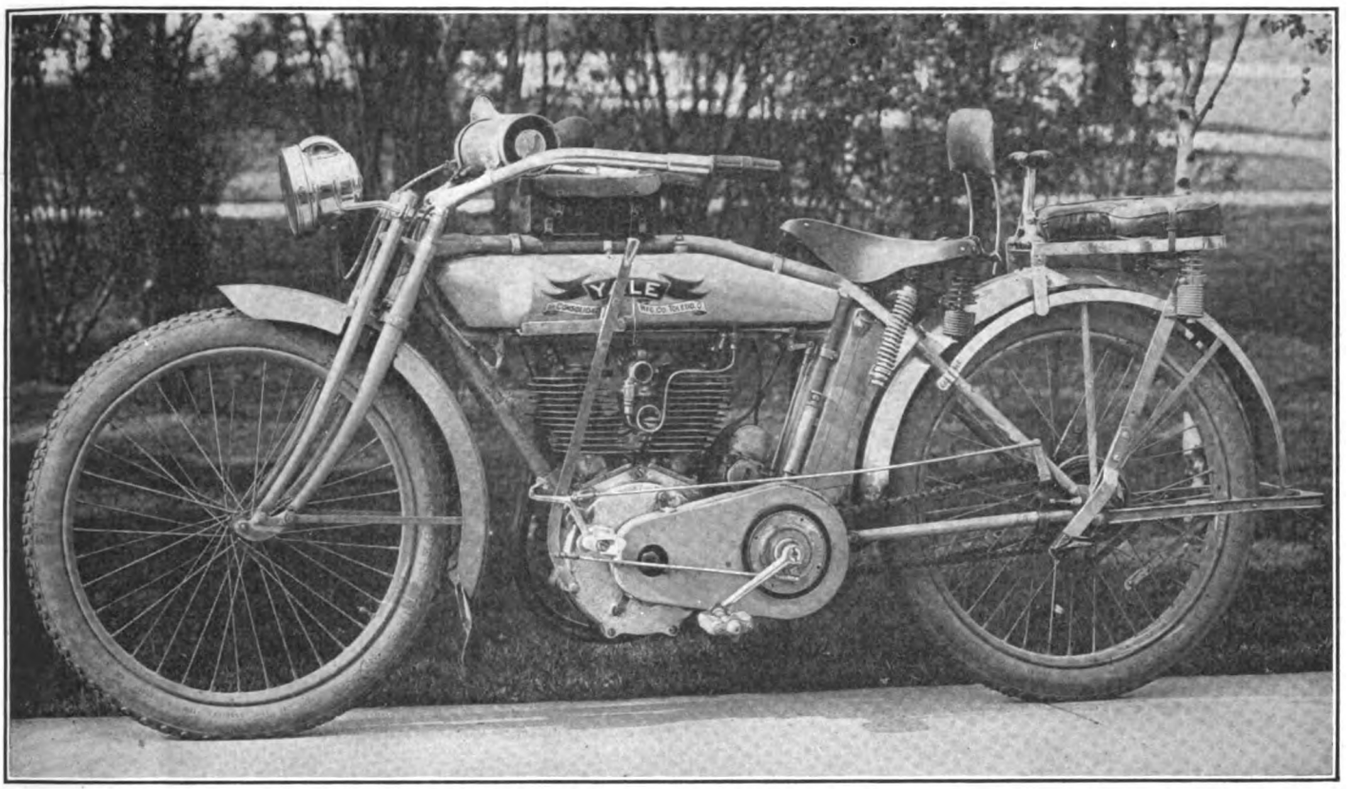
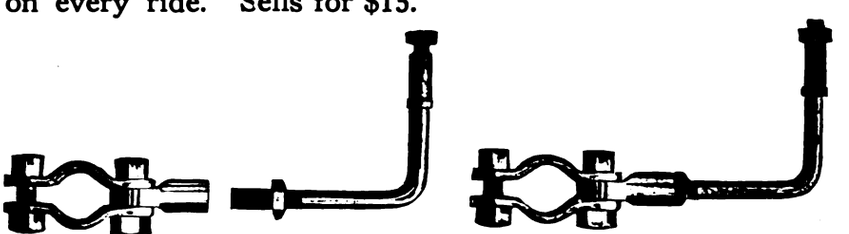


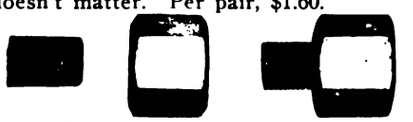
Fully Equipped

For genuine comfort and real service, Fentress-Newton specialties are necessary equipment. The F-N combination tandem attachment gives luxury to the passenger—ask anyone who has ridden it. Its low riding position makes steering easy. The carefully-designed shape of the seat, narrow in front, and the compound springs insure enjoyment on every ride. Sells for $15.



LAMP BRACKET FOR ANY MACHINE.
The only lamp bracket that will fit any machine. Adjustable in all directions. Shape of handlebars doesn't matter. Per pair, $1.60.

F-N BACKREST
This backrest gives automobile luxury to the motorcyclist and relieves strain on the back on long tours. Attached or removed in a moment's time. Price, $2.60.



F-N EXTENSION NUTS
The F-N Extension Nut, for attaching tandems or luggage carrier, has a screw insert that acts as lock for the nut. Made in these sizes: ½ x 24, ½ x 20, and 9/16 x 24. 40 cents per pair.

If you are not using Fentress-Newton equipment you are not getting the full benefit of your machine. Find out about this—write for our catalog.

FENTRESS-NEWTON MFG. CO. 429-431 Bagg Street DETROIT, MICH.

When writing to advertisers, please mention MOTORCYCLE ILLUSTRATED.

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New Departure,—

The last one out and worth waiting for.

Riders are already asking Dealers about it.

It "looks good" to them.

It is exactly the same kind, type and design of a brake as is used in automobiles.

It is powerful enough to hold an automobile, or a motorcycle of several times the horse power of any now on the market.

It gives you everything the autoist has:—

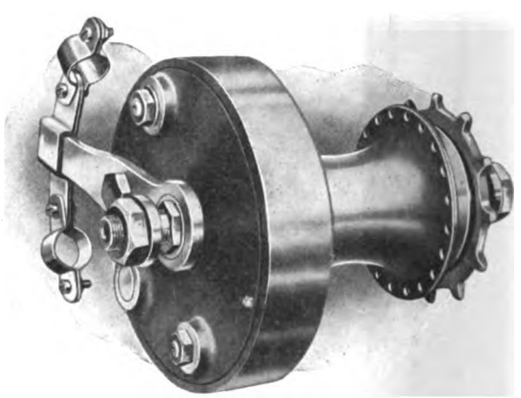
Absolutely reliable control of your motorcycle under all conditions:—

A brake that will not wind, bind or lock:—

A slight back pedaling pressure will exert a retarding force of a ton and a half.

You surely want to know about this newest motorcycle device.

Write for fully illustrated and descriptive literature.



MODEL L

1913 New Departure Motorcycle Coaster Brake for Belt Drive Machines

The New Departure Mfg. Co.

Bristol, Conn.

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Prest-O-Lite
For Motorcycles

"Wouldn't ride at night without it"

That's what every experienced rider says about Prest-O-Lite. You know, if you've ever tried to do any road work at night that the oil lamp won't do. Small carbide lamps are but little better.

But with Prest-O-Lite and a lamp big enough you can tour safely any time and anywhere. You have a brilliant, dependable light that turns on and off like a gas jet.

Money Invested

Regard the money paid for Prest-O-Lite not as money spent,—but as money invested. It's extra insurance against accident. And, besides, Prest-O-Lite never gets to be second-hand. It can always be sold for about what it cost, owing to the universal use and demand. Exchanges cost little—never more than the carbide to feed a generator—and in most cases less.

$10

Try Prest-O-Lite for 30 days at our risk

You need Prest-O-Lite to make your night riding pleasant and safe. So that you can see how much you gain by it, we want to have it on your machine for 30 days' trial. Then if you decide you can do without Prest-O-Lite, the trial won't cost you a penny. Fair enough, isn't it? We want every rider who isn't using Prest-O-Lite to take advantage of this offer. Write for booklet and plan today.

The Prest-O-Lite Co. 246 Speedway Indianapolis, Ind.

CANADIAN GENERAL OFFICE AND FACTORY, MERRITTON, ONT.

Exchange Agencies Everywhere

TO DEALERS—It's a poor idea to train your customers to going elsewhere for Prest-O-Lite Exchanges. The other dealer may sell them other things as well.

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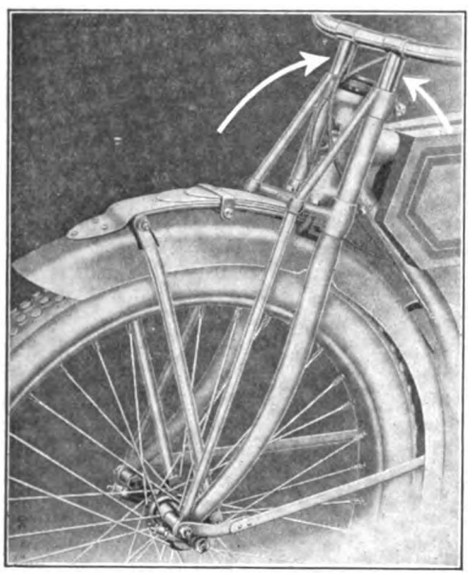
POPE

Double Stem Handle Bars

Give POPE Riders Perfect Steering Control



Pope riders have absolute steering control under all conditions because Pope Motor Cycles have DOUBLE STEM HANDLE BARS instead of single stem. As it is impossible for TWO STEMS to slip, steering wheel and handle bars are bound to work in unison so that absolute control of the handle bars means absolute control of the steering.

By fitting double handle bar stems into the extension fork sides, the steering members are held together as rigidly as if they were one piece, which they virtually are.

The fork sides themselves are made in one piece of heavy re-inforced tubing, connected by drop forgings at the top and bottom of the fork crown, giving the strongest kind of a steering head.

Handle bars mounted in this way can't be forced from their correct steering position by road shocks or the difficulties of steering in deep ruts and sand.

EVERY POPE MODEL HAS THIS SAFETY STEERING DEVICE.

Our catalog tells you all about Pope Motor Cycles, explaining the advantages of the Pope Overhead Valves Motor; the Pope Rear Helical Spring Suspension; the Pope Spring Fork; and other characteristic Pope features.

Write Today for Pope Motor Cycle Catalog.

Model L, "Twin" 7-8 H. P.	**$250.**	**Model K, 4 H. P. (Belt Drive)**	**$200.**
Model M, 5 H. P. (Chain Drive)	**$215.**	**Model H, Lightweight**	**$165.**

THE POPE MANUFACTURING CO., HARTFORD, CONN., U. S. A.

POPE MOTOR CYCLE DISTRIBUTORS

Northwest: F. P. Keenan Co., Portland, Ore. Northern Cal. and Nevada: Kimball-Upson Co., Sacramento So. Cal. and Arizona: G. L. Smith, Los Angeles
Cook County, Ill.: A. L. Spindler, 1326 Mich. Ave., Chicago Colorado: Pettee Cycle Co., Denver
So. Dak., North Western Iowa, So. Western Minn.: Van Brunt-Bleeg Co., Sioux Falls

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Guaranteed for 5,000 Miles— Usage far more

Automobile Tires —Motorcycle Size

All the successful and popular features of Pennsylvania Vacuum Cup Automobile Tires are found in

PENNSYLVANIA Oilproof VACUUM CUP TIRES FOR MOTORCYCLES

They are long-wear tires built to prevent skidding and to resist oil-rot. The Vacuum Cups hold the road firmly, preventing tendency to skid. The touch knobs forming the cups, strengthen and add life and long wear to the tires. The rubber composition is Oilproof. Oily roads cannot injure it.

Each tire is guaranteed for 5,000 miles; often good for as many miles more.

Dealers don't have to argue to sell these tires. Motorcycle enthusiasts know their value and demand them more and more.

Pennsylvania Rubber Co., Jeannette, Pa.

Pittsburgh, 505 Liberty Avenue
Cleveland, 1837 Euclid Avenue
Detroit, 254 Jefferson Avenue
Chicago, 1004 Michigan Avenue
Minneapolis, 34 S. 8th Street
Kansas City, Mo., 514 E. 15th St.
Omaha, 215 S. 20th Street
Seattle, Armour Building

PENNSYLVANIA RUBBER COMPANY OF NEW YORK

New York City, 1700 Broadway Boston, 149 Berkeley St. Dallas, 2111 Commerce St.

PENNSYLVANIA RUBBER COMPANY OF CALIFORNIA

San Francisco, 512-514 Mission Street Los Angeles, 930 S. Main Street

AN INDEPENDENT COMPANY WITH AN INDEPENDENT SELLING POLICY

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Elyria-Dean
TRADE MARK

THE "MAXO" HORN

An Electric Warning Signal for Motorcycles

GUARANTEED

Price

$5.00

Complete with
Cord and Button

The "Maxo" adds value to Motorcycles.

The "Maxo" is manufactured by the makers of the Tuto and Rexo Automobile signals.

Inexpensive to operate.

Easily installed, as it is provided with universal mounting bracket.

An adjustable clamp is provided to attach push button.

Furnished complete, including Baked Black Enamel Horn and Button, Connecting Cord and Instruction for Mounting.

The "Maxo" is the only Electric Warning Signal built especially for the Motorcycle service and carrying an unlimited guarantee.

TO DEALERS—We have an interesting proposition for you as our agents.
Ask for it today.

MANUFACTURED ONLY BY

THE DEAN ELECTRIC COMPANY

603 Taylor Street

Kansas City **ELYRIA, OHIO, U. S. A.** **San Francisco**

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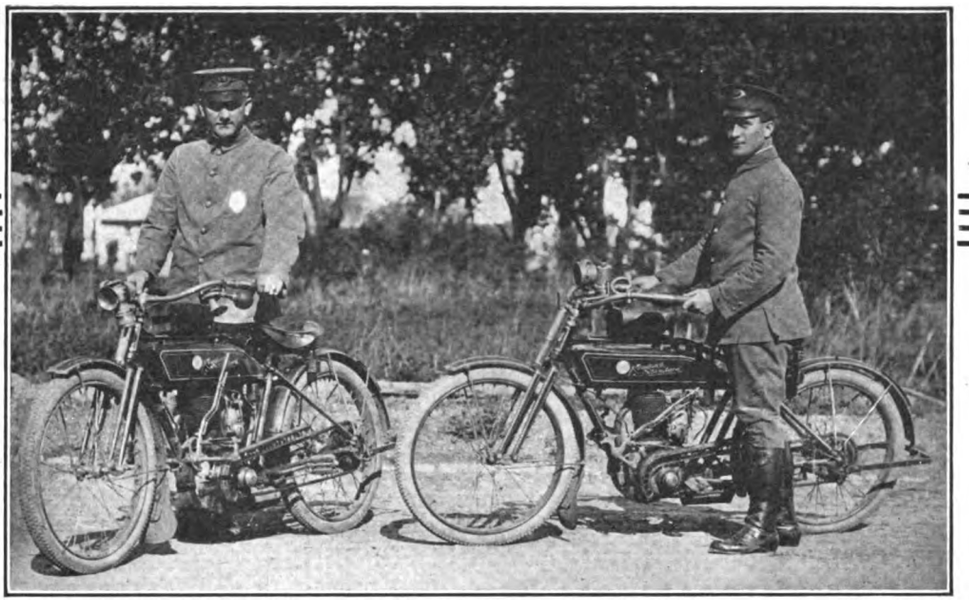


The R-S Guards the Nation's President

Models—

Twin, Chain Drive
$275

Tourist, Belt or Chain
$225

Service, Belt Drive
$200

On his automobile trips, President Wilson is invariably closely trailed by two motorcycle policemen whose duty it is to keep a watchful eye upon the nation's head to see that he comes to no harm. Obviously, their machines must be proof against any and all troubles. They must be fast—they must be silent. They must be clean-cut and graceful in appearance.

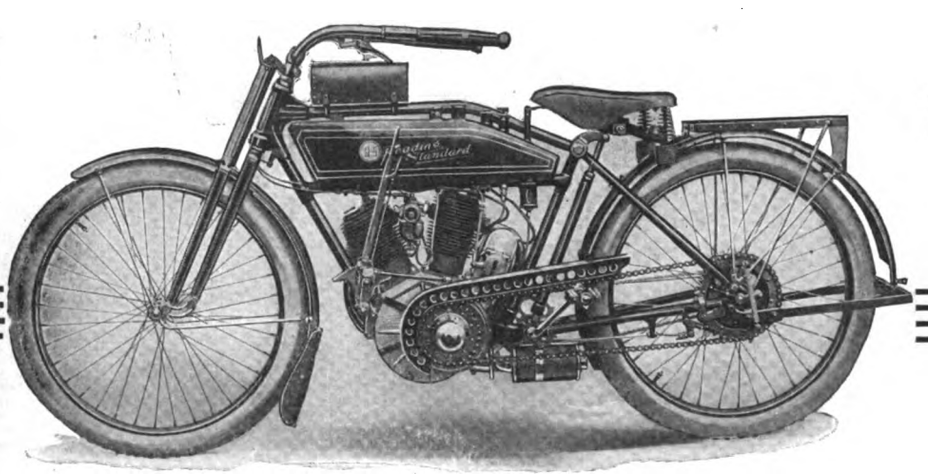
Is there any wonder that the R-S was chosen? What greater duty, what more responsible service can a motorcycle be called upon to perform than to guarding the President of the United States? Do you think the Washington Police authorities, who, by the way, use six Reading-Standards—chose the R-S haphazardly? Don't you think exhaustive experiments, merciless tests and keen investigations eliminated all other contenders for this high honor and left the R-S triumphant? That's understood.

Get our Art Catalog. It tells the rest of the story—the WHY of it.

Bulletin

On Decoration Day, at the Empire State Track at Yonkers, N. Y., an R-S Twin, John Cronan riding, won the ten mile amateur Race against six others. Time, 10:37. Next best time, 10:39⅘. Chalk up another for the R-S.

READING-STANDARD COMPANY,



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Continental-Erie Tires have no spectacular track-racing records to their credit, and we are proud of it. But the hundreds and thousands of brilliant endurance records, transcontinental runs and other real tire tests have invariably brought out the "greater service" of Continental-Erie Tires. "ASK THE JOBBER, HE KNOWS."

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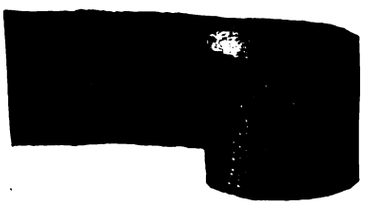
To bring your belt up to the maximum of its efficiency and keep it there, Continental-Erie Non-Slip-Lag is the thing. It increases the life of the belt, prevents its tearing, cracking or stretching. It eliminates all slippage. Order a roll today from your dealer.



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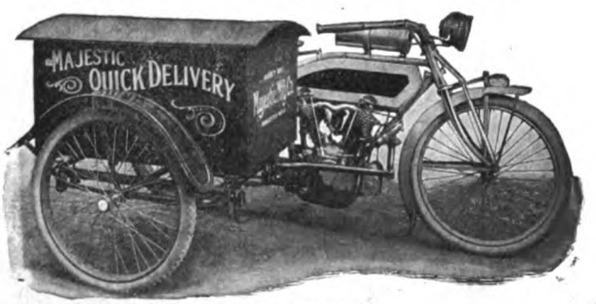

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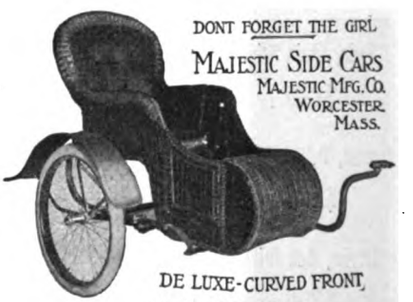

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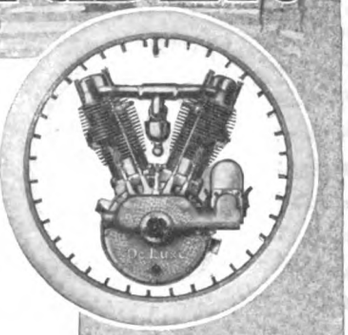

The joy of riding is enhanced when you ride a DE LUXE Motor equipped motorcycle.

Because there are four notable features of DE LUXE Motors:

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FAST POWERFUL

De Luxe Motors
The Heart of the Motorcycle

SO SILENT—that you almost forget that you have a motor running under you. It is like riding in a Pullman.

SO FAST—that you can pull away in an instant from any of your companions, and stay ahead of them.

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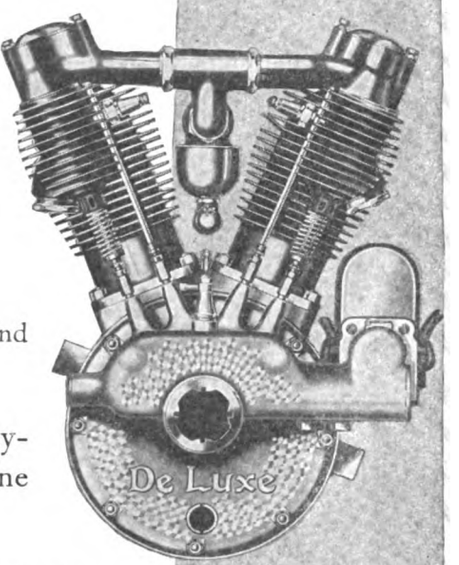
SO POWERFUL—that you can climb the steepest hills and pull through the deepest sand, where others walk.



DE LUXE Motors have done more than anything else to elevate motorcycling to the high plane where no apology is necessary for it.

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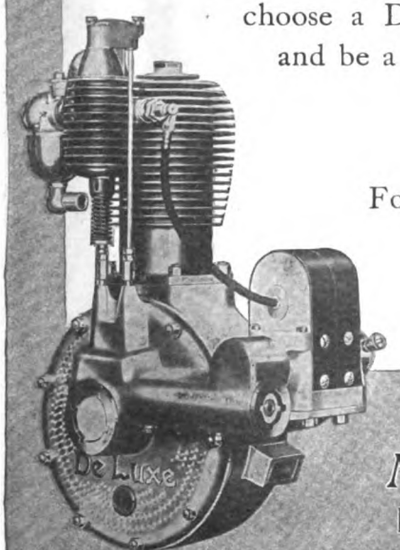

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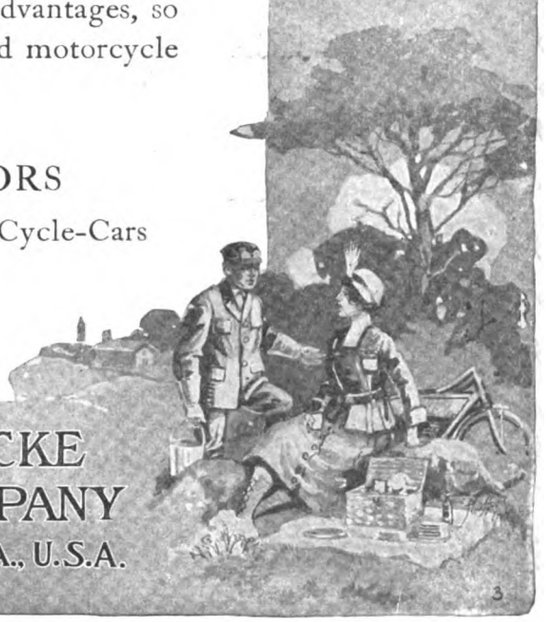

THE F. W. SPACKE MACHINE COMPANY
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"Always There"

The "female of the species"—the ever increasing army of charming women deciding in favor of the two-wheel "steed of the road" as a means of economical and healthful touring travel—is voting unanimously in favor of SPLITDORF IGNITION.

The reason is immediately apparent even to the lay observer of the popular trend of the times—SPLITDORF IGNITION can ALWAYS BE DEPENDED UPON. Faithfulness is the woman's cardinal demand—the new SPLITDORF MAGNETOS and the standard, common-sense SPLITDORF PLUGS are always faithful in foul weather or fair.

SPLITDORF IGNITION does away with distressing and disappointing roadside delays to the "road plugger" and "joy rider" alike.

A jewel-like SPLITDORF MAGNETO finds favor immediately on first appearance—the same SPLITDORF MAGNETO becomes endeared to every rider on practical acquaintance, owing to its staunch, rugged FAITHFULNESS in SERVICE. A SPLITDORF MAGNETO will fire AS SLOWLY AS YOU CAN PEDAL, and it is WATER PROOF.

SPLITDORF PLUGS are, as they always have been, the standard plug for the hardest usage—they don't fail. They are soot-proof—gas-tight and unbreakable.

Woman's intuition and practical common-sense are demanding SPLITDORF IGNITION.

DEMAND IT NOW.

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"New ignition for old" is a special exchange proposition of great interest to every owner of a gasoline motor that is not equipped with SPLITDORF up-to-the-minute ignition. Save time and money and write or call for particulars today.

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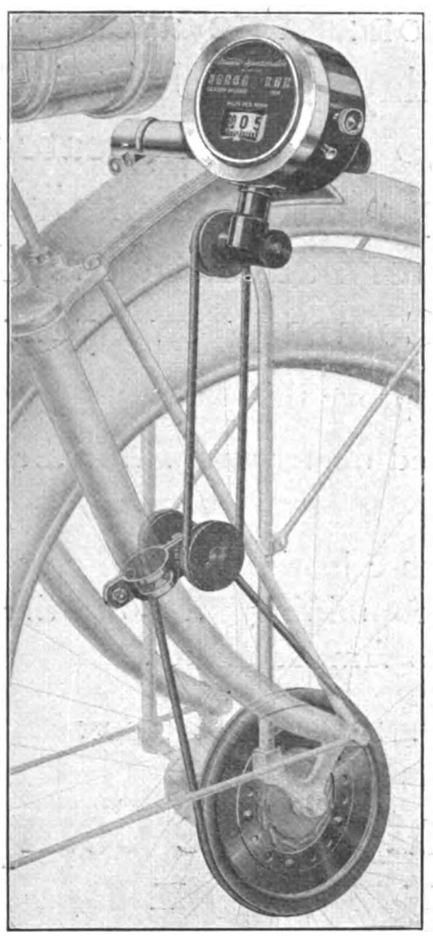
"Stewart" Motorcycle Speedometer

With New 2-Belt Front Wheel Drive



$12 (*Complete*)

75-mile speedometer; 100,000 mile season odometer, 100 mile trip register, which can be readily reset to any tenth of a mile without disturbing total mileage of season register, front wheel two-belt drive complete with pulleys and brackets.

THE one important essential in motorcycle touring, either competitive or for pleasure, is an absolutely reliable speedometer. An instrument that *cannot* be affected by vibration or road shocks of the roughest going must be used. Without such a perfect speedometer the value of the tour will be lost, for speed and mileage records will be erroneous—and therefore worthless.

The new Stewart Motorcycle speedometer has been proved absolutely correct in thousands of tests, under every condition of weather and travel. It is the only simple, practical and reliable motorcycle instrument made. The coiled steel piano wire belts of the new two-belt front wheel drive absorb every vibration and shock. The instrument cannot possibly be affected—at any speed—over any road.

The letter below gives evidence of Stewart worth and reliability under extraordinarily severe conditions. We have hundreds of others.

"Charlottesville, Va., May 10, 1913.
"Stewart Warner Speedometer Corporation, Chicago, Ill.
"Gentlemen:—

"Some time ago I purchased from you one of your 1913 Stewart motorcycle speedometers, which I have put to a test of nearly ***1000 miles*** of the roughest riding over Virginia ***unimproved roads.*** I have smashed my front wheel and broken the leaf spring on which the speedometer was installed and it has escaped any injury.

"A friend of mine had a ..... speedometer which, after five hundred miles riding, was only fit for the junk pile—and he had no accidents of any kind. I think this little comparison will show the superiority of the Stewart.

"I am tourmaster of the first F. A. M. tour in Virginia for the second day's run from this city to Richmond, and have every confidence that my Stewart will be the one to check off the correct speed that will be set.

"Very truly yours,
(Signed) "J. F. S. DUKE."

The Stewart Speedometer Factory

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United States Tires

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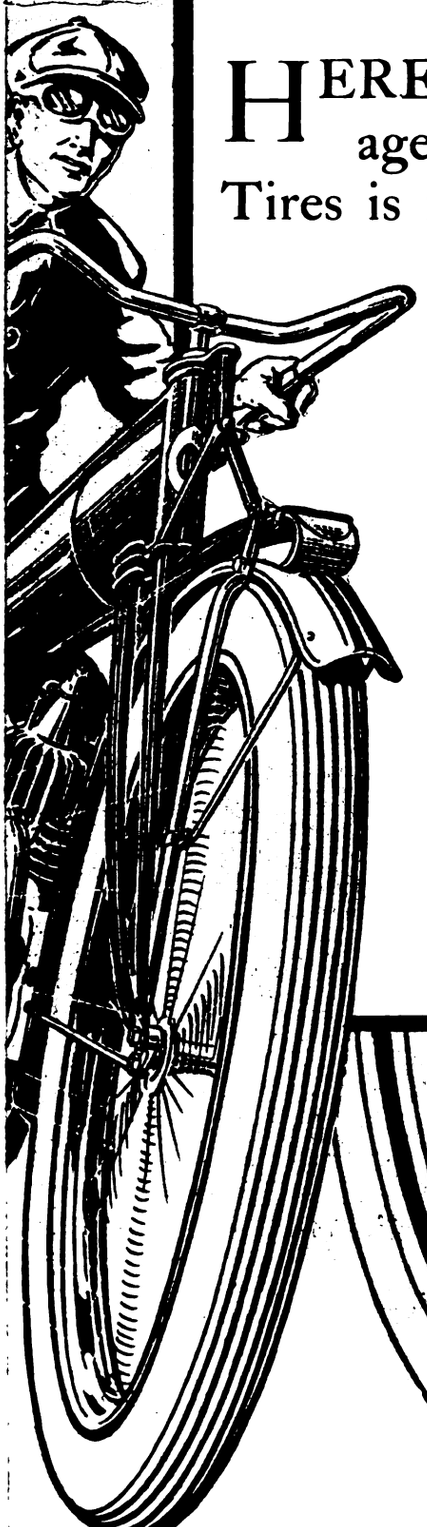

HERE is the reason: The average mileage yielded today by United States Tires is from 25 to 50 per cent greater than that given by any make of tires previous to the formation of the United States Tire Company two years ago.

Our own records prove this.

Every unprejudiced dealer and user in the country will admit it.

This radical increase in tire mileage comes as the logical result of combining into one tire all the best points of two famous makes.

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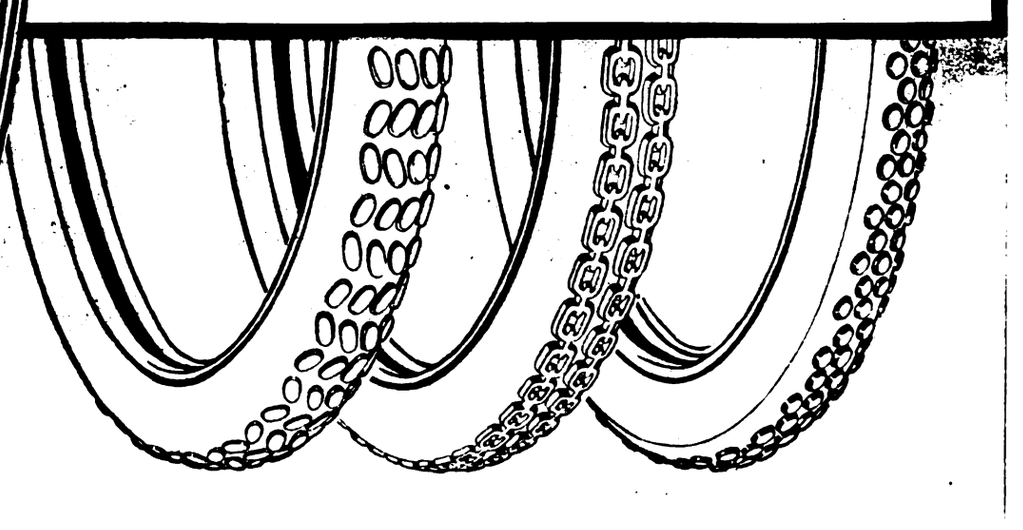
United States Tire Company
NEW YORK



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MOTORCYCLE ILLUSTRATED

51 CHAMBERS STREET NEW YORK CITY | THURSDAY, JUNE 12, 1913 | TEN CENTS A COPY ONE DOLLAR A YEAR

Washington Motorcyclists Test Ordinance

Two Riders and Their Wives Violate Unreasonable Tandem Regulations and Suffer Arrest in Order to Furnish National Capital Club with Grounds for Continuance of Legal Fight.

THE Legal Action Committee of the National Capital Motorcycle Club has entered into the second stage of its fight against arbitrary police regulations in the District of Columbia. On Thursday, June 6, at 4 p. m. a test was made of the regulation prohibiting the carrying of a passenger except on a certain specified form of tandem attachment prescribed by the Police Board which has charge of the issuing of permits to carry passengers. Test was also made of the ruling of this board which declares that only male passengers be allowed to ride on tandem attachments for which permits to carry passengers have been granted. The persons volunteering to take part in the test were Frank S. Long and wife mounted on a Henderson motorcycle, and Edmund A. Mitchell and wife, of Guilford, Howard County, Maryland, who rode an Excelsior. The test was staged in Rock Creek Park on the outskirts of Washington, D. C., and the arrests which were necessary were made by Motorcycle Officer Trennis of the Rock Creek Park Squad of the District of Columbia police department. He courteously allowed the riders concerned in the test case to depart without compelling them to go to the police station merely requesting them to appear in the police court at 10 a. m. the following morning.

The attorney for the Legal Action Committee, William E. Ambrose, appeared before the court the following morning, Saturday, June 7, and requested a postponement of the case in order that all the evidence be put in writing and brought to the court. The court set June 16 as the day for the trial of the case, which is expected to be quite long drawn out, as every aspect of the situation will be taken up in order to have a substantial basis for an appeal to a higher court if necessary. It is the determination of the Legal Action Committtee of the National Capital Motorcycle Club, which is backed by the Legal Action Committee of the Federation of American Motorcyclists and the Motorcycle Manufacturers' Association, to carry this case to a final decision which may be used as a precedent in similar cases all over the country.

J. W. Henderson, president of the Henderson Motorcycle Co., of Detroit, Mich., was in Washington several days last week in consultation with Frank Long, Legal Action Chairman of the National Capital Motorcycle Club. Mr. Henderson, in company with other manufacturers of motorcycles and accessories, is interested in the Legal Action Committee's fight, and promised to bring the matter before the Motorcycle Manufacturers' Association at their meeting in Buffalo, June 11.

Motorcycles Barred From C. R. R. Trains and Boats

Railroad Officials Refuse to Transport Machines on Any Basis, Even with Tanks Empty, and F. A. M. Legal Action Committee Takes Action Looking Toward Modification of the Ruling.

ONE of the latest problems to confront the National Legal Action Committee of the F. A. M. is based on a ruling of the Central Railroad Company of New Jersey that motorcycles will not be carried on its trains, or on the boats plying between New York City and New Jersey coast points over the Sandy Hook route. This announcement was made a few days ago in reply to a letter from A. H. Hyde, of Yonkers, N. Y., who requested information relating to the transportation of his motorcycle on one of the company's Sandy Hook boats. Mr. Hyde at once forwarded the railroad company's letter to Chairman J. Leo Sauer, of the F. A. M. Legal Action Committee, who took up the matter with C. R. R. officials. Later he addressed communications to the Pennsylvania Railroad Company and the New York Central Railroad, requesting full information with reference to similar regulations and suggesting that steps be taken to modify them. At this writing replies have not yet been received.

The ruling applies to automobiles and aeroplanes as well as motorcycles, and apparently is subject to no qualifications. In writing to the C. R. R. officials Mr. Hyde, the Yonkers motorcyclist, explained that his gasoline tank would be emptied before the machine was presented for transportation, but this had no bearing upon the situation. Mr. Hyde is authority for the statement that motorcycles were carried on the Sandy Hook boats of the C. R. R. several years ago, and just when the new ruling went into effect has not been ascertained. That it has not been called to attention previously is due no doubt to the fact that motorcyclists traveling from New York City to New Jersey coast points almost invariably make the trip in the saddle and do not need either trains or boats, excepting the ferryboats to Jersey City or to St. George, Staten Island.

The letter of the Central Railroad Company to Mr. Hyde is as follows:

"Your favor of the 22d instant, to Mr. P. W. Heroy, has been received, and in reply would state that we do not accept motorcycles for transportation on either the boats or trains of this company as part of passenger's baggage or free allowance thereof, nor have we any tariff filed with the Interstate Commerce Commission covering such arrangement. Such being the case, I regret that it would not be lawful for me to give you the permit desired." The letter is signed by General Passenger Agent Pope.

Chairman Sauer's letter addressed to the officials of the three railroads mentioned above read as follows:

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"Will you be good enough to advise, if it is consistent, why the railroads, as I understand it, have made a ruling to the effect that 'automobiles, motorcycles, aeroplanes, and other machines propelled by motor attachment, are not to be accepted for transportation'?

"As Chairman of the Legal Action Committee of the Federation of American Motorcyclists, with a membership of twenty thousand, I am in constant receipt of letters complaining against this ruling, and I wish to know whether something cannot be done to modify it. Owners of motorcycles are willing, of course, to remove gasoline before tendering their machines as baggage."

Brighton Bowl Continues to Fly F. A. M. Banner

WITHIN a few hours of the opening, on Decoration Day, of the Brighton Beach Stadium, Chairman Thornley, of the Competition Committee, and Chairman Sauer, of the Committee on Legal Action, succeeded in persuading Manager Wellman that he had nothing to gain, and possibly a lot to lose, by breaking away from the F. A. M. As a result of the three-hour conference, conducted in all friendliness on all sides, Wellman agreed to amend his contracts with riders to provide that his races would be run under the rules and regulations of the federation and with the sanction of its Competition Committee. Wellman agreed to accept Pitman's refereeship the first night in view of an understanding that he should be succeeded by Lawson Robertson. Robertson was not only the choice of Wellman, but also that of all the riders, and Thornley and Sauer came to the conclusion that a referee favored by both the management and the riders would not be likely to encounter any serious difficulties in running the Brighton Beach meets.

As a matter of fact, everybody concerned seems to be satisfied with the new arrangement, and the situation at the present time is all that could be desired, and promises to remain so indefinitely.

The Brighton Beach situation also involved Philadelphia. Had Brighton Beach gone "outlaw," the Point Breeze track in the City of Brotherly Love would have followed suit. By the same token, Wellman's conversion brought back into the F. A. M. fold the Philadelphia motordrome.

The change in the refereeship at Brighton is regarded by no one who knows anything about the situation as a reflection upon the ability of "Happy Days" Pitman. However, Pitman, Wellman and the Brighton Beach riders were simply unable to get along together and, under the circumstances, Thornley and his fellow director agreed with Wellman that his insistence upon a change could not be considered unreasonable. The conference was almost broken up several times, but in the end the conferees succeeded in reaching an adjustmen involving observance of the principle for which the chairman of the Competition Committee was fighting and, at the same time, a very healthy concession to the manager of the track.

Arthur Chapple "Breaking In" a Recruit at the Brighton Motordrome.

Manufacturers' Cup Goes to Yale Squad at Newark

Indian Team Makes a Good Second in Two-Day Endurance Trial and Gold Medal For Most Consistent Riding Goes to Andrew Bohsen, an Excelsior Rider—Secret Time Run For July Fourth

NEWARK, N. J., June 11.—At a special meeting of the New Jersey M. C. last night the final returns on the endurance run held May 30-31 were considered, and several questions that had been raised relative to the standing of contestants were disposed of.

The manufacturers' cup goes to the Yale team, which was made up of P. W. Stevens, George Riechey and O. W. Stevens. There was some talk of a protest based upon the claim that one of the Yale squad had been forced to make tire repairs in a control, but no formal complaint was registered and the committee ruled that the Yalesters were fully entitled to the trophy.

An effort was made to have two members of the Indian team, Zimmerman and LaRoe, credited with perfect scores, but it was decided that the committee would not be justified in changing their standing. These riders received 996 points each, and the third member of the Indian team finished with a score of 729. The four points lost by Zimmerman and LaRoe were taken off at Suffern, where they were nine minutes late checking out. The schedule allowed them leeway of five minutes, but the remaining four counted against them. The Indian team also receives a cup as the second team prize.

Andrew Bohsen, of West Orange, an Excelsior rider, will receive a gold medal for having the most consistent score. He finished with 873 points out of a possible 1,000. Peter Bohsen, also mounting an Excelsior 7, had a score of 870, and was therefore in second place for consistency. P. W. Stevens, Yale, finished in third place with reference to consistent road work, his score being 849, and George Riechey followed him with 847 points.

Those who finished the run were Peter M. Bohsen, West Orange, 7 h. p. Excelsior; Andrew Bohsen, West Orange, 7 h. p. Excelsior; Elliott B. Holton, Newark, 7 h. p. Excelsior; W. Ed. MacDougall, Jr., Newark, 7 h. p. Harley-Davidson; Alexander Klein, Philadelphia, 7 h. p. Harley-Davidson; Arthur LaRoe, Perth Amboy, 7 h. p. Indian; A. J. Zimmerman, Springfield, Mass., 7 h. p. Indian; C. A. Leander, 7 h. p. Yale; O. W. Stevens, West Orange, 7 h. p. Yale; George Riechey, East Orange, 7 h. p. Yale, and P. W. Stevens, West Orange, 7 h. p. Yale.

At last night's meeting the club decided to hold a secret time run on July 4, from Newark to Asbury Park. The riders will be started at 8 a. m. and will be called upon to make the trip down along the Jersey coast as closely as possible in keeping with a secret running schedule. President Roy Pascall will check the boys out in Asbury Park, and will also have a secret check or two to keep tab on the riders as they approach their destination.

Charles N. Jones, of the Harley-Davidson

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team, is given special credit for his game showing in the May 30 run. After a severe fall he continued in the running and managed to finish, thus bringing his team into third place in the contest for the manufacturers' trophy. His mount gave an excellent performance despite the fact that it was damaged in the spill.

OHIO CONVENTION PROGRAM

Commissioner Campbell Announces Strong Line-Up of Entertainment Features for First Big Assembly.

F. A. M. State Commissioner Jesse Campbell has just made an official announcement of the program for the Ohio State convention, to be held June 21-22, and even a casual glance over the list of features will leave no doubt as to the thoroughness with which arrangements for the assembly have been carried through. The tourists will arrive in the convention city on Friday, June 20, and the afternoon will be devoted to checking in the riders and taking photographs of the divisions. On Friday night there will be a sail on Lake Erie, free to F. A. M. members.

The convention will be held on Saturday morning, June 21, at the Hollenden Hotel, and Saturday afternoon will be given up to sightseeing and swimming at Euclid Beach. In the evening there will be a special racing program at the Luna Park saucer, and admission will be free to all visiting F. A. M. riders. After the races the F. A. M. membership cup recently won by the Cleveland M. C. will be presented by Director J. Leo Sauer, and there will also be addresses by President A. B. Coffman, of the Motorcycle Manufacturers' Association, State Commissioner Campbell and others. The cup will be presented in the arena of the motordrome. Later there will be a Dutch lunch.

On Sunday morning there will be a motorcycle parade and $100 will be offered in prizes. On Sunday afternoon the State Championship races will be staged on the Randall Park track. Gold, silver and diamond medals will be the awards, and trophies embodying the shield of the State of Ohio and the F. A. M. emblem in an artistic design. The program will close with more races on Sunday evening at Luna Park.

ON A FLYING TRIP

Walter Davidson Finds Dealers Satisfied and Conditions Encouraging on All Sides —New Fore-Car on the Way.

PRESIDENT WALTER DAVIDSON, of the Harley-Davidson Motor Company, visited New York this week in the course of a rapid-fire tour of the East and the Middle West. On his way to the metropolis, he made stops in Cleveland, Buffalo, Rochester, Syracuse, Utica and Springfield. Leaving Gotham yesterday morning, he stopped at Philadelphia, and then Baltimore, Washington and Pittsburgh. He found that the Harley-Davidson dealers had in nearly every instance estimated their 1913 sales to a nicety and that in many of the smaller cities re-orders were the usual thing.

The Harley-Davidson policy has always been a conservative one, and President Walter expressed himself as more than satisfied with the results. No tremendous increase in the 1914 output over that of 1913 is anticipated by the company. Instead, the company will make it a point to put forth its best endeavors to further improve a most efficient factory organization. So rapid has been the growth of the Harley-Davidson business, and so persistent the demand for more space and facilities, as to cause one to wonder how so large and steady an output could have been possible in the face of constant building construction for several years.

Plans are well under way for placing a cleverly designed fore-car on the market in the near future. This model will be complete in every way, and at the same time moderate in price. It promises to be immensely popular for commercial use.

LIVELY LAMP BUSINESS

C. F. BROOKS has recently returned from a business trip through New York State, showing the complete 20th Century Lamp line. The firm's new model No. 2, for bicycles, was most enthusiastically received and they report a large sale already for this efficient lamp. Mr. Brooks states that general motorcycle business conditions are very good, and that all jobbers are piling up orders.

M. M. A. Discusses Show Plans at Buffalo

BUFFALO, N. Y., June 11.—There was a representative gathering of trade boosters on hand when the meeting of the Motorcycle Manufacturers' Association was opened at 10.30 today, and considerable business was transacted before a recess was taken pending the arrival of a telegram from Chicago with reference to an option on the Coliseum for the independent motorcycle show in November.

Those in attendance were: Pete O'Horo (Excelsior Cycle Co.), W. G. Schack (Emblem Mfg. Co.), Arthur Davidson (Harley-Davidson Motor Co.), Col. A. L. Pope and E. L. Hardin (Pope Mfg. Co.), A. W. Mitchell (Black Hawk Motor Co.), Frank Schwinn (Excelsior Motor Mfg. and Supply Co.), H. N. Kirk (Aurora Automatic Machinery Co.), G. E. Atkins (The Reading Standard Co.), T. W. Henderson (Henderson Motorcycle Co.), R. D. Webster (Eclipse Machine Co.), L. G. Reid (Firestone Tire and Rubber Co.), Frank W. Pardee (Ericsson Mfg. Co.), Bert Quayle (Standard Welding Co.); W. P. Schamber (Minneapolis Motor Co.); A. B. Coffman.

The show committee was authorized to enter upon negotiations with Samuel A. Miles for space at the Grand Central Palace, New York City, in connection with the next national automobile show. It is likely that the motorcycle exhibit will be located about as it was for the last show, but there will probably be a slight increase in the area occupied.

When reference was made to the independent show in Chicago it was explained that the committee would not be able to make a definite report until a telegram embodying further information was received, and it was for this reason that arrangements were made for a recess until 3.30 this afternoon.

Following the morning session, W. G. Schack, the genial Emblemite, gave a luncheon which was attended by the trade representatives, eighteen in all.

The members of the M. M. A. not represented at the session today were fined $25 each. The next meeting will be held at Atlantic City, on August 6.

RAPID-FIRE SALES WORK

"SPEAKING about rapid-fire selling," said Gid Haynes, a traveling salesman of the Excelsior Motor Mfg. & Supply Co., of Chicago, in a recent interview, "I think I hold a record or two in that line. Not long ago I left Kansas City on Friday evening and arrived at my next stop at 7:30 the next morning. I jumped into a cab, went to a hotel for breakfast and was at the agent's store by 8 o'clock. Without delay I started talking carloads to the proprietor, assuring him that it was for the purpose of giving him the benefit of reduced freight rates. Upon learning that he did not have enough money in the bank to pay for a carload I asked him when the bank opened and learned that it would be ready for business at 9 a. m. I then took him out for a walk, incidentally dropped in at the bank, and in an interview with the cashier I explained my mission, stating why it would be good policy for my friend to buy a carload of machines. The cashier agreed to let the agent have the necessary money and by 10 o'clock I was on my way to the next town with a carload order in my pocket. Quick work, eh?"

EXPECTATIONS EXCEEDED

ALTHOUGH the Lowenberg Company, of Newark, N. J., made arrangements to handle a material increase in business for this season it was not fully prepared for the remarkable demand that is now being felt for its line of motorcycle clothing and sporting goods, and as a result it has not been possible for the firm to make shipments with its accustomed promptness. The company makes this statement by way of apology for any annoyance that may have been occasioned by the delays, and states that from now on shipments will be made more promptly. In August the Lowenberg company will send its representative, L. N. Smith, on an extended business trip. He will show a full line of fustians, whipcords and moleskins for fall and winter wear.

IN LARGER QUARTERS

TO CELEBRATE the acquirement of a new clubhouse a large number of the members of the Maryland M. C. turned out at the last meeting, June 4, to bid goodbye to the old quarters which have been occupied for a long time. The new clubhouse is located at 7-9 East North avenue, in the heart of the automobile district.

MOTORCYCLES IN CIVIC PARADE

ONE of the leading features of the parade in which 12,000 employees of New York City participated on Saturday, May 17, was the motorcycle squad, under the direction of Sergeant Samuel W. Johnson.

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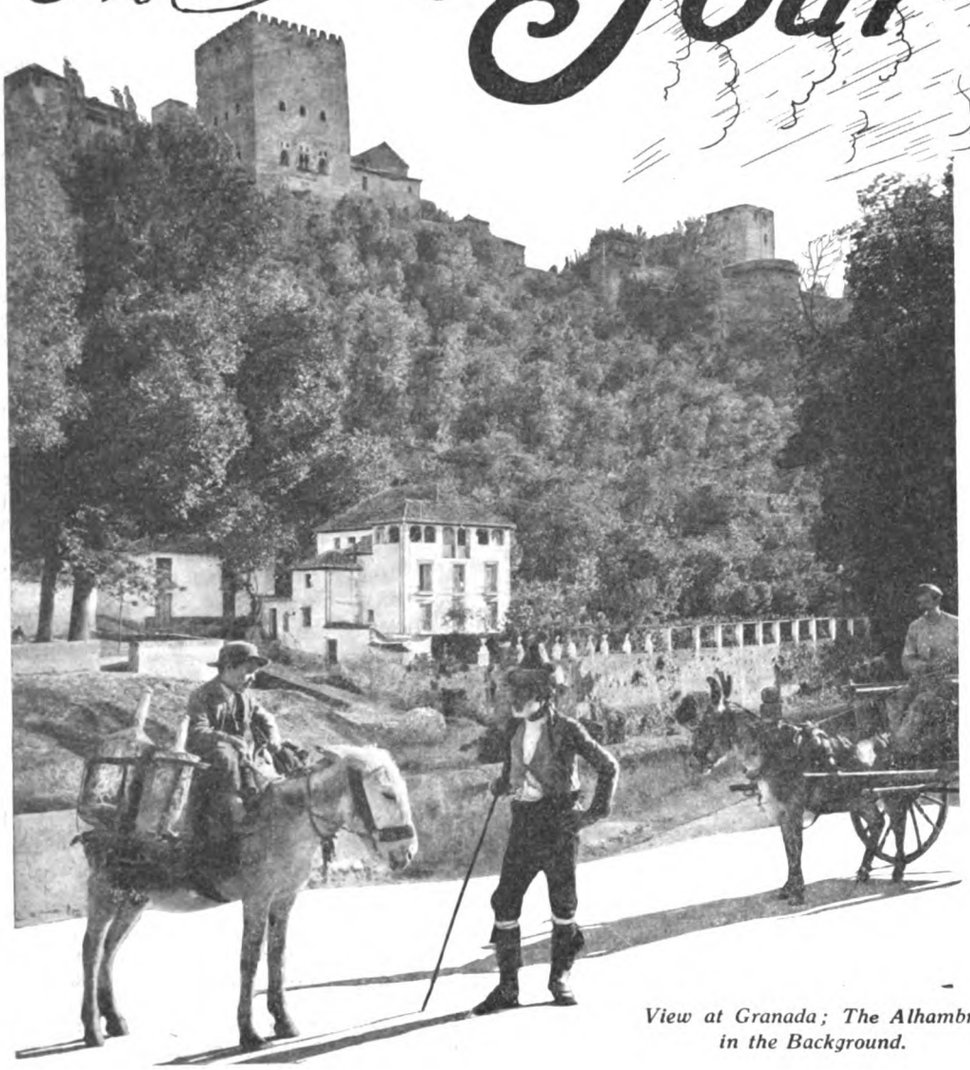
A Motorcycle Tour in Spain



View at Granada; The Alhambra in the Background.

FOR the American motorcycle tourist abroad who can dovetail his schedule with his inclinations there are so many attractions that it is difficult to find time for many excursions off the main-traveled routes, and this no doubt accounts for the fact that comparatively little has been heard of the widely-varied scenic inducements offered by Spanish roads. True enough, Spain has not escaped the insatiable automobilist. For years past the four-wheeler has poked into every picturesque nook and cranny of the country, but it is safe to say that not more than half a dozen of the scores of American motorcyclists who have enjoyed European tours in the last two years have extended their itineraries into the land of the Don.

Nor can this be held against road conditions, for Spanish roads, while often dusty and featured by quite stiff grades, are usually of fairly good surface. Were it otherwise some of the climbs found on the most striking routes would probably balk the sturdiest of two-wheelers. Many of the main roads are very old, but of such construction that they practically defy wear and the elements. It must be admitted that they are sometimes narrow, but this is a condition that need not deeply concern the seasoned motorcycle traveler, and at all times the scenic panorama is worthy of the tourist's best efforts.

ON A PICTURESQUE ROUTE.

It is safe to assume that the American motorcycle tourist in Spain will find something to interest him at every turn of the road, and he may not consider it necessary to map a long trip and adhere strictly to any given route. Still it is obvious that a tour planned carefully in advance, and with regard for the most attractive cities and the points of historical and scenic interest, will always give the greatest returns. It hardly pays the motorcycle visitor to dash into Spain, say to Madrid, and then wheel about and skip back over the French border, for by so doing he obtains only a taste of what the country has to offer in the way of motoring inducements. He may even be dissatisfied with his jaunt, for he will have missed the finest scenery and some of the best roads, whereas a more leisurely journey would have forced him to admit that any slight annoyances were fully offset by the multitudinous charms of the colorful towns and their quaint inhabitants.

Let us take it for granted that the motorcyclist has arranged for an indefinite stay in Spain; that a few days more or less will not perturb him. If this is the case he cannot do better than to make what is practically a circuit of the country, starting in either the northwestern or northeastern corner and following the coastline as far as is possible. Such a route will permit of visiting many interesting cities and towns, and will also avoid the worst of the mountainous country. Spain's mountain ranges extend generally east and west, and it follows that any circuit of the country must entail some climbing. In the far north there are the Cantabrian mountains, which run almost parallel with the coast and appear to merge with the Pyrenees at the French border. In the central part of the country is the Sierra Guadarrama range and to the south are the Sierra Morena and Sierra Nevada ranges with a few smaller ranges such as the Montes de Toledo and the Gredos.

SOUTHWARD FROM SANTIAGO.

If the tour is to be started from Santiago or some other city in the northwestern district there will be only an easy three-day run to Madrid. The motorcyclist who wishes to cut down this time can do so without difficulty, but it is likely that he will feel justified in devoting the best of three days to this leg of his journey. Roads are fair but the hotel accommodations are not to be boasted of even in quite pretentious towns, and native cooking may give the visitor many an uneasy moment until he accustoms himself to it. Hotel and restaurant rates are usually quite low, and the *rioja*, a native wine that reminds one of claret, costs only a *peseta* for a quart bottle.

After leaving Santiago the traveler will pass through a number of smaller towns and finally arrive in Valladolid, a city of some importance lying to the northwest of the capital. It is then necessary to engage in some mountain climbing before arriving in Madrid, which city is located at an altitude of about 2,400 feet. Madrid is always worthy of the visitor's most careful attention. It has some beautiful pieces of architecture, many imposing avenues and public squares featured by statues, and on all sides there is evidence that the people spend much of their time in the open air.

From Madrid the route may lead to Toledo, which the tourist will at once associate with

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the manufacture of finely-tempered swords. This industry at one time brought the city into great prominence, but the visitor of today will find the inhabitants fairly well satisfied to rest on past accomplishments. From Toledo it will probably be well to strike in a southwesterly direction, for Badajoz, an important city on the Guadiana river and near the Portugal line. Ciudad Real will probably prove satisfactory for a night stop, and the Montes de Toledo will be left to the right as the traveler turns westward.

ON THE SOUTHERN COAST.

On leaving Badajoz the rider will strike through the Sierra Morenas and arrive in due time at Cordova, a rather impressive city on the Guadalquivir river. He will then have only a short run to Seville, the city which inspired Rossini to compose "Il Barbiere di Seviglia." Thence the route is to Jerez, which is pleasantly situated and calculated to hold the tourist for a day or two. From Jerez an enjoyable trip may be made to Cadiz, the famous city on the southern coast, which is almost surrounded by the sea. While in this neighborhood the traveler should not fail to visit Algeciras, from which point one of the most striking views in all Europe is obtainable. Across the water from Algeciras is the towering rock of Gibralter, and in the distance may be seen the African coast and under favorable conditions it is even possible to discern the Atlas mountains, snow-capped and awesome.

Malaga will be the next stopping place on the coast route northward from Algeciras. Here there is much to be seen that will interest the American tourist, not least among the city's attractions being a famous bull ring. From Malaga the most desirable route is still northward to Granada. This city lies at the foot of the snow-capped Sierra Nevada and its situation is one of the most beautiful imaginable. It is very old, having been founded before the year 800, and possesses many features of historical interest. For the motorcycle visitor who carries a camera Granada offers practically an unlimited field.

The tourist will be especially interested in the old quarter of the city, with its Hispano-Moorish architecture, and the wonderful Alhambra is in itself worth a trip abroad. The beautiful cathedral, the Carthusian convent and the far-famed Alameda walk should not be overlooked, and for the antiquary and the lover of pictures there are many special attractions. One of Murillo's most wonderful paintings hangs in the Carthusian convent.

TO CARTAGENA AND BARCELONA.

From Granada the tourist will no doubt decide to turn his machine for Cartagena, which lies slightly to the northeast, amid most pleasing surroundings. He will encounter the lower slopes of the Sierra Nevada on this leg of the tour, but should experience no great difficulty in maintaining a satisfactory running schedule. It may be necessary to stop at a peasant's cottage here and there in lieu of hotels, but this will only add to the interest of the trip and give a new insight into the life of the great rank and file. Fresh fruit will be found plentiful and the supply of *rioja,* or native wine, is inexhaustible. It can be obtained almost anywhere.

Northward from Cartagena to Barcelona the route follows the coast quite closely, and for about 400 miles the tourist will always be able to rest his eyes by turning them to the blue sea. This section of the trip can probably be made in two days if the motorcyclist is so inclined, but a week can be devoted to it with good results. It is inadvisable to hurry, for there is so much to be seen that frequent stops will be found necessary by the tourist who wishes to make the most of his outing.

Stops may be made at Valencia, Castellon de la Plana and Tarragona on the route to Barcelona. And what is more to the point, each of these cities will offer the traveler a new thrill, a novel scenic effect, a wonderful piece of architecture; something calculated to cling in his memory long after minor details of the outing have been forgotten. On arriving in Barcelona the rider may proceed northward into France, or he may swing westward through a number of picturesque little towns with the Cantabrian mountains on his right hand and finally reach Santiago again, his starting point.

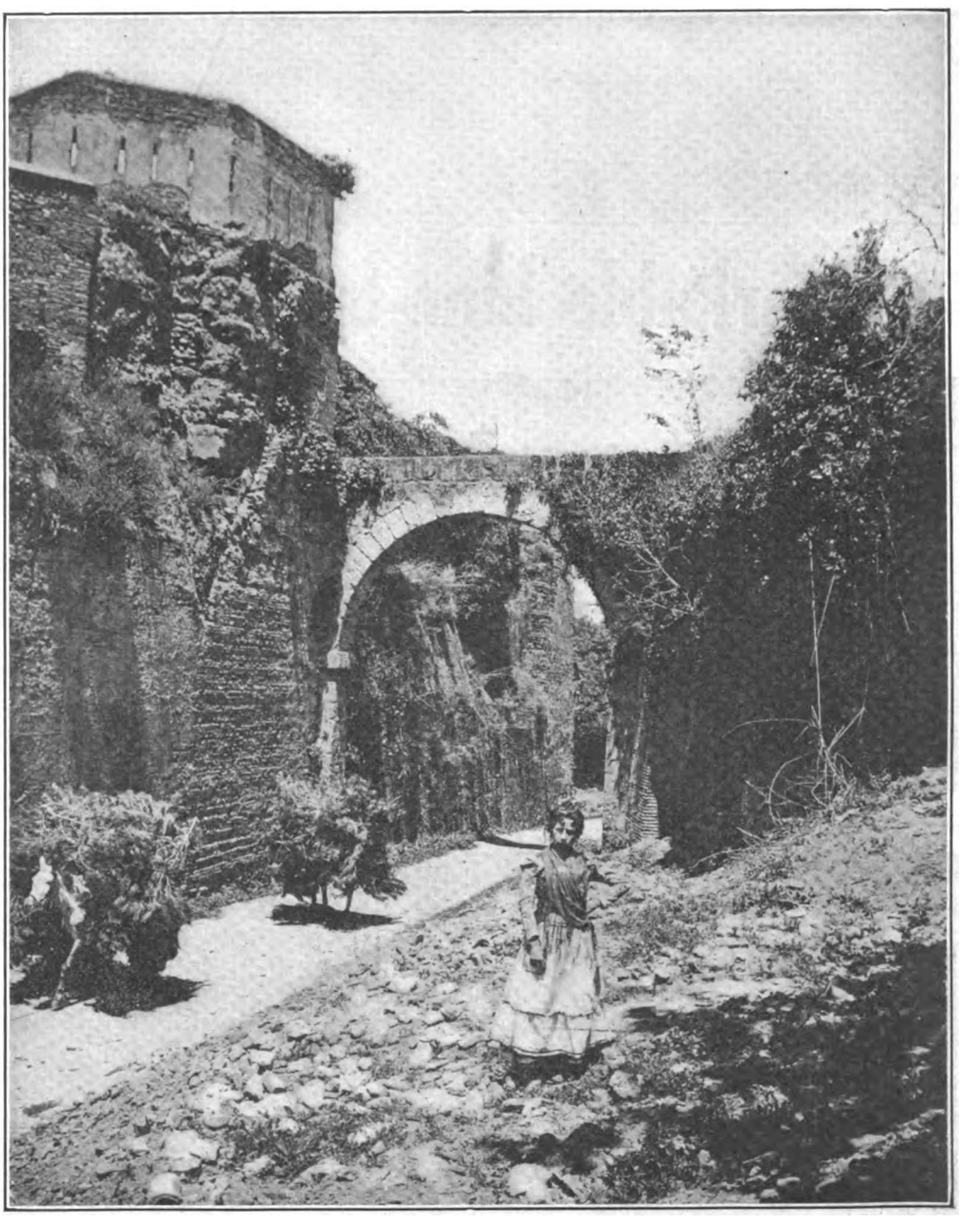
SPANISH ROAD RACE

JULIAN OLAVE, Indian dealer at San Sebastian, Spain, will enter a team in the Spanish international motorcycle road race, scheduled for Sunday, July 20. The race will be held over the 100-mile course from San Sebastian to Bilbao and return.

WARNING FOR PENNSYLVANIANS

SPEED traps are being operated along the Philadelphia Pike, from Pittsburgh East as far as Ligonier. A number of riders have been fined for tearing through East McKeesport at an unreasonable pace, and the authorities are determined to put a stop to the practice. The trap in East McKeesport is a measured half mile from the top of the first hill, after crossing the car tracks, to the cemetery. Constables and witnesses with stop watches are on hand, especially on Sundays. Riders traveling this route should use caution. In Pennsylvania the permissible speed on country roads is limited to 24 miles per hour, very much faster than some Keystone roads can be negotiated, but the stretch from Pittsburgh to Greensburg is a regular 60-mile-an-hour road, and the temptation to "beat it" is indeed strong. Riders not burdened with superfluous cash should exercise a grain of caution.

A MOTORCYCLIST has been employed by the Ontario Motor League to tour the main highways of Ontario and mark the best routes to the various cities.



A Typically Picturesque Spanish By-way near Seville.

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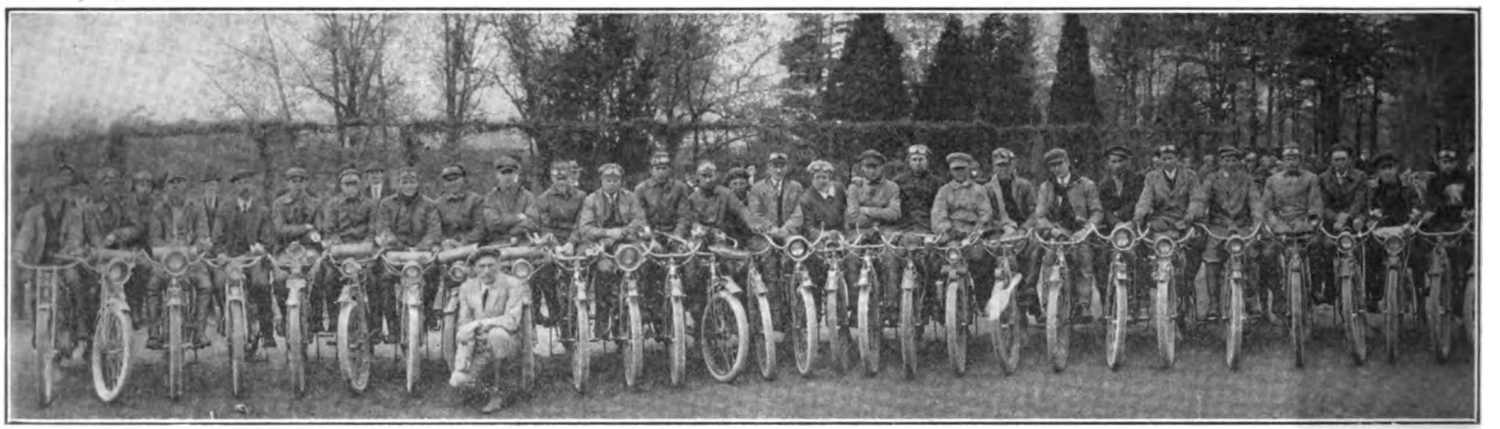

Remarkable Line-up of Rhode Island Riders

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For Annual Picture Run of Providence M. C.

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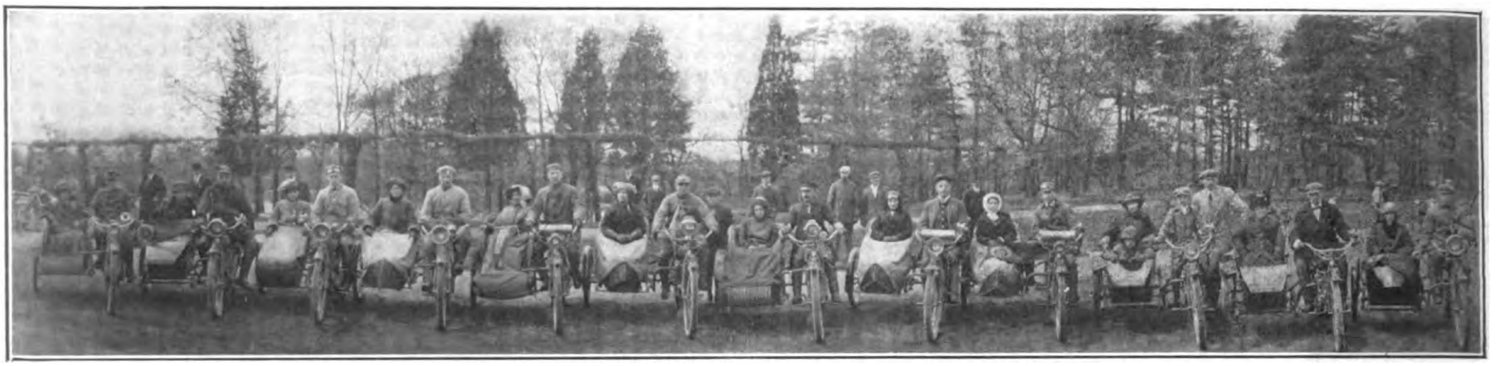

Sidecar Division of Providence (R. I.) Squad Ready for Recent Annual Picture Run. The Strongest Sidecar Showing Ever Made in the East.

Expect 3,000 California Riders at Convention

Elaborate Program is Ready for First Annual Assembly of State F. A. M. Body to Be Held at San Jose, June 21-23—Big Squad of Sunset Ramblers Will Spend Day in the Convention City.

IT is expected that at least 2,500 F. A. M. members will attend the California State convention to be held in San Jose, June 21-23, in addition to 400 or 500 riders of Los Angeles and vicinity who will stop over for a day at the assembly while on the Sunset Ramble. Accordingly the committee in charge of arrangements for the convention is making elaborate preparations to entertain visitors. Dealers and riders have shown willingness to co-operate and as a result it has been possible to prepare for the first annual gathering of the State Federation body under most auspicious conditions.

The local F. A. M. committee appointed by the San Jose Motorcycle Club, consisting of A. C. Banta, L. Sorenson, J. C. Harris, C. D. Reade and H. Hunt, announces the following program:

Friday, June 20, will be devoted to an informal reception and registration of delegates and visitors in the clubrooms of the San Jose M. C., at 128 East Santa Clara street.

A number of side trips are planned for Saturday, the twenty-first. Among the points to be visited on these jaunts are Lick Observatory (Mt. Hamilton), Congress Springs, Port San Jose, New Almaden and Guadaloupe quick silver mines, Madrone Hot Springs, Big Trees, Leland Stanford, Jr., University and other interesting places. At 7 p. m. there will be an illuminated motorcycle parade, prizes for which have been donated by the dealers of San Jose. After the business session of the convention, which starts at 8:30 p. m. in the convention hall of the Chamber of Commerce, the schedule calls for a grand ball in Turn Verein Hall to be given by the San Jose club.

The riders will leave San Jose at 9 a. m. Sunday, the twenty-second, for a run to Alum Rock Canyon. After a panoramic photograph and moving pictures are taken there will be a barbecue and dance. At 1 p. m. the riders will leave the canyon for San Jose driving park, where a race meet will be held. The races will begin promptly at 2 p. m. and State Referee Claude H. Lashlee will officiate.

The clubrooms of the San Jose M. C. will be open for the accommodation of visitors during the convention and special arrangements have been made with the hotels, whereby visiting riders will be given low rates. All garages and motorcycle shops have agreed to store motorcycles gratis. Riders desiring information as to hotels should write to L. Sorenson, 165 East Santa Clara street, San Jose, in order to obtain satisfactory results.

F. A. M. GAINS FOR MAY

Secretary Gibson's Report Shows That 726 Affiliated Riders Were Enrolled During the Month—The State Figures.

DURING May an unusually large gain in affiliated members was realized by the F. A. M. National Secretary Gibson forwards the following statistics showing the increased memberships in each state:

Maine—unaffiliated, 1; renewal 1; Massachusetts—affiliated, 12; unaffiliated, 8; renewals, 12; Connecticut—renewals, 2; New York—affiliated, 124; unaffiliated, 28; renewals, 67; New Jersey—affiliated, 43; unaffiliated, 14; renewals, 27; Pennsylvania—affiliated, 44; unaffiliated, 15; renewals, 36; Maryland—affiliated, 30; unaffiliated, 1; renewals, 12; Virginia—affiliated, 5; unaffiliated, 2; renewals, 11; West Virginia—affiliated, 4; unaffiliated, 1; renewal, 1; District of Columbia—affiliated, 5; renewals, 6; Tennessee—affiliated, 29; renewals, 2; Georgia—unaffiliated, 6; renewals, 3; Florida—affiliated, 1; renewals, 2; Alabama—renewal, 1; Louisiana—affiliated, 2; unaffiliated, 1; renewals, 2; Texas—affiliated, 67; unaffiliated, 2; renewals, 3; Kentucky—affiliated, 2; unaffiliated, 1; renewals, 3; Oklahoma—affiliated, 13; unaffiliated, 1; Ohio—affiliated, 92; unaffiliated, 54; renewals, 72; Indiana—affiliated, 66; unaffiliated, 7; renewals, 51; Illinois—affiliated, 34; unaffiliated, 14; renewals, 37; Missouri—affiliated, 17; unaffiliated, 2; renewals, 10; Wisconsin—affiliated, 17; unaffiliated, 2; renewals, 9; Michigan—affiliated, 1; unaffiliated, 7; renewals, 9; Minnesota—affiliated, 2; renewal, 1; North Dakota—unaffiliated, 1; renewal, 1; South Dakota—affiliated, 19; renewals, 3; Nebraska—affiliated, 16; unaffiliated, 1; renewals, 7; Kansas—affiliated, 14; renewals, 5; Iowa—unaffiliated, 5; renewals, 7; California—affiliated, 8; unaffiliated, 2; renewals, 22; Nevada—unaffiliated, 1; Colorado—affiliated, 30; renewals, 13; New Mexico—unaffiliated, 1; Arizona—renewals, 2; Wyoming—unaffiliated, 2; Oregon—affiliated, 27; renewals, 4; Washington—affiliated, 3; renewals, 7; Panama—unaffiliated, 1; renewal, 1; Porto Rico—unaffiliated, 1; Mexico—unaffiliated, 1; Philippine Islands—affiliated, 5; renewals, 2. The total gains for the month are affiliated, 726; unaffiliated, 184; renewals, 467.

Raymond Ray, One of the Latest Additions to the Yale Traveling Staff. Note the "Big Y" Smile.

WINS A MOTORCYCLE

AS a result of the membership contest just closed by the Broome County Motorcycle Club, of Binghamton, N. Y., Alfred Worthine, of 89 Washington street, has a new Yale, which was offered as a prize. On the evening of May 28, members of the club paraded through the city headed by Motorcycle Policeman Donnelly, of the Binghamton squad. After the parade refreshments were served at the club headquarters. The contest resulted in heavy membership gains.

FIFTY motorcyclists of the Syracuse (N. Y.) M. C. recently made a Sunday run to Tuscaloosa. A feature of the run was the fact that all the riders wore the regulation khaki suits.

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Four-Day Program Ready for Cycle Parts Convention

ALTHOUGH minor changes may still be made in the program for the coming convention of the Cycle Parts and Accessories Association in Atlantic City, plans for the annual gathering of trade workers are officially regarded as complete and members are now receiving circular letters giving an outline of what is in store for them. The convention will be opened on Tuesday, August 5, and as members and friends will arrive throughout the day the first special feature of the program will be held off until the evening. Then there will be a party on Steeplechase Pier, in connection with which each member will receive tickets entitling him to admission to all the amusement places. There will also be dancing.

On the morning of Wednesday, August 6, will be held the meeting of the Cycle Parts and Accessories Association, the session of the Cycle Jobbers' Association of America and the meeting of the Motorcycle Manufacturers' Association. In the afternoon of the same day there will be a reception for the ladies in the parlors of the St. Charles Hotel. All the ladies attending the convention are invited to participate in this feature of the program.

In the evening at 8:15 there will be a theater party at the Apollo Theater, where a New York company will present "Within The Law." Immediately after the performance there will be a midnight supper at the St. Charles Hotel. On Thursday morning, August 7, there will be meetings of the bowling and baseball committees at the St. Charles, and at 2:30 the joint meeting of the Cycle Trades Industries will be held. The latter will include the parts manufacturers, the jobbers' association and the motorcycle and bicycle manufacturers. The feature for the evening will be a bowling contest at Sweeney's Virginia alleys, located on the Boardwalk. The committee has secured the eight alleys for the bowling tournament and has also engaged the floor above the alleys which is equipped with pool and billiard tables, a shuffleboard, etc., so that those who are not bowling will be able to find amusement. As in the past, the winning team will receive bowling cups and there will be individual prizes for the bowlers making the first and second scores. There will also be a cup for the lady making the highest individual score, as two of the alleys have been set aside for the use of the ladies during the evening.

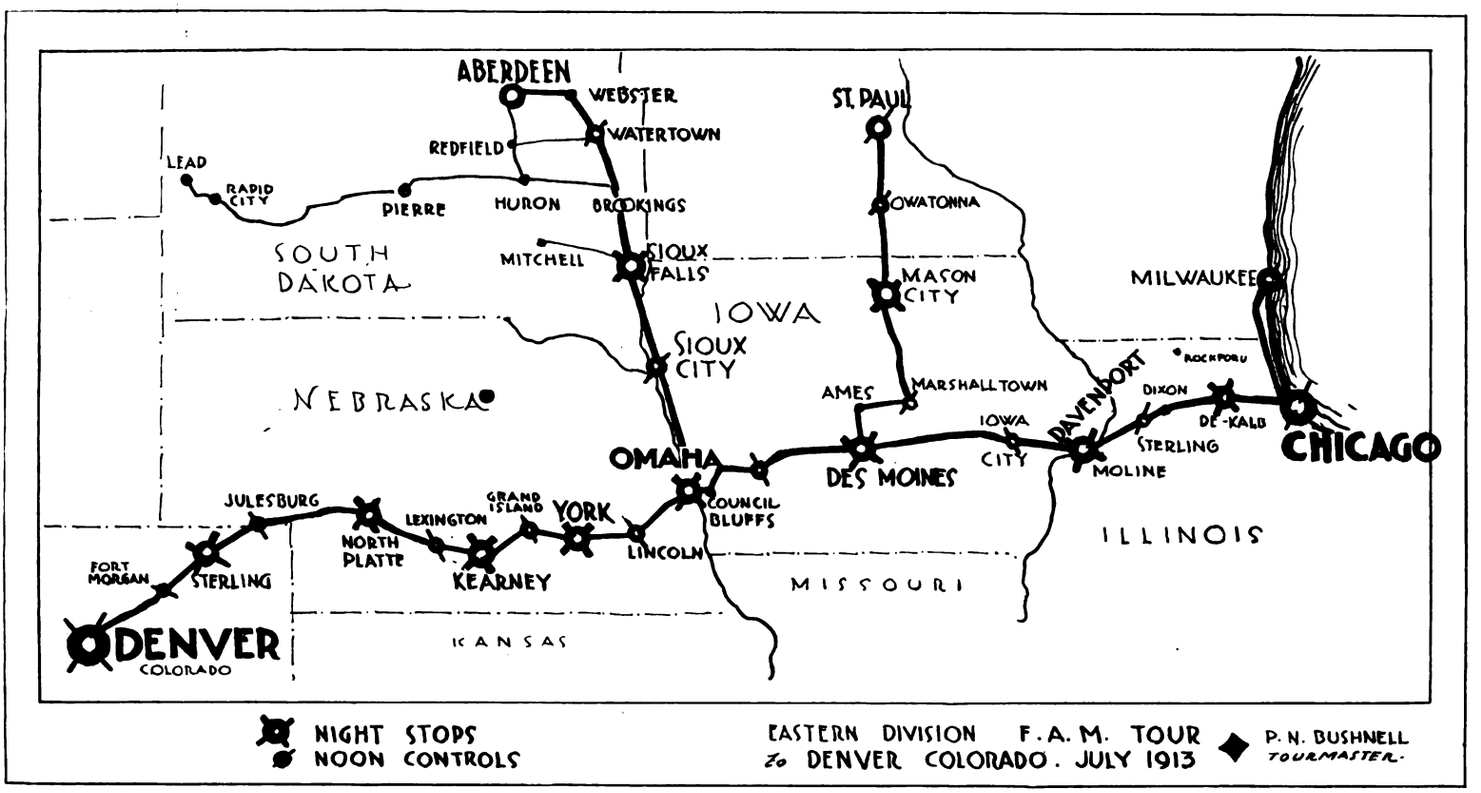
A ball game will open the program for Friday, the battle being waged on the Atlantic City baseball grounds from teams made up of jobbers and manufacturers. Bathing will be in order at any time, so that the visitors may take advantage of the surf without missing any of the other entertainment features. The various committees and the speakers for the joint meeting will be named at an early date.

It is evident from the outline given above that there will be few idle moments during the four days of the convention, and that the committee of arrangements, made up of W. J. Surre and David B. Smith, has made the most of its opportunities.

FOR TOURISTS

MOTORCYCLISTS who intend to visit the Gettysburg battlefield for the coming celebration will probably find it advisable to make a stop in Harrisburg, Pa., as accommodations in and about Gettysburg at that time will be somewhat strained. In Harrisburg the rider may visit the headquarters of the West End M. C. and obtain all necessary information relative to roads and other conditions. The West End club occupies quarters in the motorcycle establishment of the West End Electric & Cycle Co., Green and Maclay streets, and has grown so rapidly that a contract has been awarded for an addition to the building to give the organization more room.

Route for Eastern F. A. M. Tour to Denver Convention



WITH a view of having no less than three hundred riders in his division when it pulls into Denver, P. N. Bushnell, tourmaster for the Eastern Division of the National Tour, has sent out a strong circular letter to all F. A. M. members in his district telling them of his plans and what arrangements have been made to accommodate them on the tour. The Eastern Division starts from Chicago. Jesse Campbell, State F. A. M. Commissioner of Ohio, will take charge of the party until its arrival in Omaha, where Tourmaster Bushnell will join the riders with a squad from the Northern District and be in command until Denver is reached. Mr. Bushnell, who is State Commissioner of South Dakota, will leave Aberdeen with a squad of riders about the same time as the division under Campbell's direction leaves Chicago. The accompanying map shows the itinerary of the Eastern Division, including noon and night stops.

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How F. A. M. Riders May Aid National Touring Bureau

Each Affiliated Motorcyclist Is Requested to File With the Bureau Data Covering at Least One of His Summer Trips—Suggestions as to Material Required and How to Prepare it—Log Sheets Ready.

HUNDREDS of motorcyclists who have been supplied with route information by the National Touring Bureau of the F. A. M. during the last few months are now making trips and obtaining first-hand data on road conditions and itineraries, and a few riders have already reciprocated by sending in to the Bureau valuable bulletins based on their touring experiences. This is a plan which all Federation riders are requested to follow, in order that the touring department may accumulate a fund of information—collected with special regard for the requirements of motorcycles. It goes without saying that the rider who covers a certain route on his machine is admirably fitted to post other motorcyclists, and while the details of the trip are fresh in his mind the tourist should embody all his data in a letter to the Touring Bureau and hustle it along to 51 Chambers street, New York City.

All material received in this way will be filed so that the next rider who needs information bearing on the route in question can be given the latest and most reliable information. Road surfaces are continually changing under traffic wear and the battering of the elements, and a highway indicated as "fair to good" on a map issued five or six months ago may now range from "bad to worse." There is no better way of collecting this precious data than through the club and the individual rider, for they are the ones directly in touch with the existing conditions. Maps cannot be changed except yearly; it is out of the question for official pathfinders to bulletin headquarters on every rough stretch, dangerous curve, washout, railroad crossing, bad hill, etc., as soon as they discover it, but it is a simple matter for the individual F. A. M. tourist to jot down a few notes and mail them to the Touring Bureau as soon as he returns from an outing. In this way he will assist his brothers of the road and they in turn, by submitting reports on their trips, will help him through the touring season. There is practically no limit to the scope of this policy of co-operation, and the ability of the National Touring Bureau to specialize upon data for the motorcyclists must depend to a great extent upon the riders themselves.

Practically all existing road maps have been prepared for automobilists, and while they meet the general requirements of the motorcycle tourist they pay little or no attention to several features that are of prime interest to the owner of a single-tracker. For example, no special effort is made to give the rider information concerning road surfaces on heavy grades, and it is vitally important that the motorcycle enthusiast be posted in this direction if he is to avoid trouble. The 30 or 40 horsepower four-wheeler can get over a bad hill in wet weather where the motorcycle would be entirely out of the running—because conditions would not permit of keeping it upright in the road. If you have been over such a grade and you are convinced that it would not be fit for travel by a motorcyclist immediately after a rainfall write a few lines to the F. A. M. Touring Bureau. You will save other riders from spoiling their outings by attempting the route in question and you will be rendering the finest kind of assistance to the Bureau.

Quite a few motorcycle tourists have explained that they do not know what is required in the way of information by the Touring Bureau, and that they have withheld their data because of the fear that they would encumber the touring department with material of no practical value. This situation need not give much trouble. When writing to the Bureau simply include such information as you would find necessary if you were preparing to go over the route for the first time. Write plainly and begin by giving the names of the cities or towns between which the tour was made. Then give the mileage, mention the different road surfaces encountered and tell approximately how much there was of each. If there are any stiff grades on the route state where they are located, give the estimated grade and the character of the road surface. Do not neglect to state whether you believe the route in general would be fit for motorcycle travel during or immediately after a rainfall.

If you found it necessary to stop overnight at a hotel or roadhouse and satisfactory service was received, it is advisable to mention this fact in your letter to the Bureau. If you were dissatisfied with either the service or the rates it is still more important that this information be included in your bulletin. The F. A. M. touring department aims to do more than simply map routes; it is desirous of safeguarding the tourist in every way possible throughout his trip, and pointers relative to suitable hotels and garages are of great importance.

If there is a deceptive turn, a grade railroad crossing, a speed trap or any other feature of the route that you would have been glad to know of in advance, you may take it for granted that other motorcyclists will appreciate such data and you should embody it in your letter. The Touring Bureau has a supply of log sheets, so arranged that information covering any ordinary trip can be worked out systematically and without confusion, and these will be forwarded to Federation riders promptly upon application. It is not necessary to use one of these blanks—the bureau will welcome your data in an ordinary letter—but matters will be considerably simplified if the log sheets are used. Letters should be brief (to permit of satisfactory filing), but they should embrace as many helpful suggestions as possible. A running story of the trip is not necessary. Simply pick out the salient points and send them in. It is hoped that each active member of the F. A. M. will supply the Touring Bureau with data on at least one tour made during the summer, and the suggestions above are offered with a view of facilitating the preparation and filing of the information. Address all communications to the F. A. M. Touring Bureau, 51 Chambers street, New York City.

A Striking Indian Outfit Photographed Recently in Central Park, New York City.

SNODGRASS'S VACATION TOUR

LEROY SNODGRASS, accompanied by Mrs. Snodgrass in a sidecar, is one of the first riders of Los Angeles to start his vacation on a motorcycle this summer. He recently left Los Angeles on a tour that will extend over three months, during which time he and Mrs. Snodgrass will live entirely out-of-doors. Their itinerary includes Albuquerque, Denver, Omaha, Kansas City, Detroit and New York.

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NOT long ago "Billy" Grimm, of South Bend, Ind., invested in a Harley-Davidson motorcycle and found it so alluring that all his leisure time was spent on the road. This state of affairs aroused no enthusiasm in Mrs. Grimm and she announced that something had to be done to include her in the outings. "Billy" smiled knowingly and hitched a sidecar to his sturdy chugger. Now Mrs. Grimm is satisfied and Buster, the poodle, has expressed himself as tickled to death with the new arrangement, or words to that effect. Note the accompanying photograph.

LEARNING ENDURANCE RULES

IN ORDER to try out the endurance rules adopted by the Freeport M. C., of Freeport, Ill., the club recently held a trial endurance run to Lena and Pearl City. The circular course covers a distance of 33 miles. It was the object of the club to acquaint its members with the new regulations, as a number of endurance runs are scheduled for the season. The Freeport Club is now growing rapidly and will have a busy season.

Using Denatured Alcohol to Remove Carbon

Motor Expert Treats of Conditions Responsible for Carbonization, Discusses Need of Prompt Removal of Foreign Deposits and Reports on Test Cases in Which Alcohol Process Was Used.

IN an interesting pamphlet dealing with denatured alcohol as a decarbonizer and motor cleanser Joseph A. Anglada, M. E., embodies the following timely paragraphs relative to causes of carbon deposits and the necessity for removing them promptly:

"The subject of cylinder incrustations or carbonization is, of course, closely related to the subjects of lubrication and carburetion and there seems to be a divergence of opinion as to whether most of the carbon found in the combustion space of cylinders is due to fuel or the lubricating oil. It is often concluded that the carbon composing these deposits is derived from the lubricating oil, because of the solid nature of the deposits which sometimes appear slightly oily. It must be remembered that generally the surfaces of the combustion space are covered with an oil-film which forms an adhesive surface perfectly adapted to catch and hold whatever gasoline soot or other solid matter is brought into contact with them. It seems reasonable that a mass of oily carbon would be built up, if fresh oil and fresh carbon were being constantly supplied to these surfaces and that the heat of combustion would serve to consolidate these materials.

"Therefore it does not seem necessary to assume that the lubricating oil is decomposed to account for the carbon incrustations in the motor which is using an over-rich mixture. It is however, probable that the oil is also being decomposed; when one considers that generally in a motor which has run for some time, the underside of the piston head is coated with a carbon deposit. It might be well to mention here that a chemical analysis of so-called carbon deposit from the combustion space of an automobile engine, especially if this deposit has been formed during the summer months when the roads are dusty, will very likely show a percentage of silicates, which have been introduced in the form of road dust, held in suspension by the air passing through the carbureter. This dust upon coming in contact with the oily surface of the combustion space lodges there and combines with the carbon deposited, whether from the decomposition of the lubricating oil or the fuel, to form the incrustations.

"The presence of carbon deposits on the surface of the combustion space of any type of engine is to be avoided, because the radiation of heat to the outside surfaces of the cylinder is retarded. The presence of these deposits causes spontaneous ignition, which is a common source of rapid depreciation of the working parts of an engine, in addition to affecting the economical and quiet operation of the engine. Where the deposits are present in sufficient quantity, depending upon the design of the engine and the service in which it is employed, the operation of the engine may be entirely prevented, due to spontaneous ignition. The phenomenon of spontaneous ignition (sometimes called pre-ignition or self-ignition) is explained as follows: When the engine is in operation the temperature of the gases in the combustion space during the period of combustion, is sufficiently high to raise the temperature of the carbon deposit to a red heat. The result is that the deposit retains the heat imparted to it during the power stroke, and serves to ignite the new charge of inflammable gas on the following compression stroke. The result is that the ignition of the gas and consequent high explosive pressure occurs while the piston is on the up-stroke, the effect being that the force of the explosion tends to suddenly stop the engine and reverse its direction of rotation. The inertia of the flywheel and momentum of the vehicle are generally sufficient to prevent this reversal, with the result that all of the power transmitting parts of the engine and vehicle are subjected to undue strains. The continuance of severe pre-ignition will in a short time cause the bearings of the connecting rod and generally the crank shaft bearings to fail. Carbon deposits are the cause of greater wear of the working parts of the engine than appears at first thought. It is but necessary to filter the oil drawn from the crank case of a motor, which has been in operation but a short time and analyze and closely examine the substance extracted from the oil by the filter paper. It will be found to be mostly granular carbon that has worked past the piston rings and found its way into the oil in the crankcase. As this foreign material reaches the working parts of the motor in the oil it is obvious that it must cause undue wear."

Mr. Anglada states that denatured alcohol gave surprising results in cleansing several automobile motors of carbon. When the affected parts were soaked with the fluid for several hours the carbon deposits (previously so flinty that they could hardly be chipped off) were found to be in the form of a black paste. The bulk of this could be removed with a small stick and the part then wiped clean. Running the motor completed the cleansing operation, and the combustion chamber and valve parts were found to be entirely free from carbon after a short trip following the denatured alcohol treatment.

NELSON MOULTON, of Portland, Me., who recently rode his motorcycle from his home to Los Angeles, Cal., covered the entire distance in 27 days.

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Pleasant Tours in the Delaware River Country

Road Surfaces Are Not Always Ideal But They Strike a Satisfactory Average and the Scenic Inducements Offset All Ordinary Annoyances—How Main Routes Cross the River.

MANY POINTS OF HISTORICAL INTEREST FOR TOURISTS

First-Hand Information Covering Most Attractive Lines of Travel Along and Across the Delaware and Some General Pointers.

By Robert Bruce

OF the very large number of motorcycle tourists who make the interesting trip from Kingston, Saugerties or Catskill across the Catskill Mountains by the two main routes between the Hudson and Susquehanna valleys of New York State—for Cooperstown, Richfield Springs, Oneonta, Unadilla or beyond—possibly few more than merely notice the modest streams crossed in passing through the small mountain villages of Stamford (on the upper route), or Margaretville and Delhi (on the lower route). They look just like a thousand-and-one other streams and crossings that are characteristic of that locality; probably not one stranger in a hundred—unless he had studied the map with more than the usual care—would be able offhand to correctly name or otherwise identify them.

Any suggestion that these might be the two upper tributaries of the Delaware River would frequently be received with doubt or surprise; and yet such is the case, for the headwaters of the west branch of that river are still farther north, in or near Lake Utsayantha, about 1½ miles above Stamford village. The headwaters of the East Branch are in the recesses of the mountains well above Margaretville; but that is the first place where the traveler between the Kingston section and Oneonta or Unadilla will see anything of it.

But from either Stamford or Margaretville south to the lower end of Delaware Bay, no east-and-west trip can be made without crossing that river or its tributaries at least once. The map on the next page will exemplify that fact more clearly than any amount of descriptive text; and from the road-users' standpoint interest may be added by giving in connection with that diagram the nature of the various crossings.

HOW THE CROSSINGS ARE MADE.

On the East Branch and the West Branch in New York State these crossings are all bridges; also (reading from north to south) at Port Jervis, Milford and Dingman's Ferry. There is no direct connection across the river at Delaware Water Gap, but a covered bridge spans it at Portland; at Myers Ferry is the old ferry which gives its name to the place, and is in fact still the principal connection for road travel from New York, Newark and Morristown to the "Gap" or beyond. Easton, Pa., and Phillipsburg, N. J., are connected by a large and important bridge, which is in keeping with the trunk-line highway that makes so great use of it.

There are several smaller bridges on the way to Trenton, not much used by motorcyclists on account of the poor road along the Delaware below Easton; but at Trenton is the most important one of all, as it carries most of the travel between New York and Philadelphia. Here is also the last bridge, for the river road grows wider; but there are three ferries much used by road travel: (1) Bristol, Pa., to Burlington, N. J.; (2) Camden, N. J., to Philadelphia, and (3) Penns Grove, N. J., to Wilmington, Del. Of course the most important of these is the one between Philadelphia and Camden, which carries across the heavy road travel from the Quaker City to Atlantic City, Cape May and the entire south Jersey peninsula.

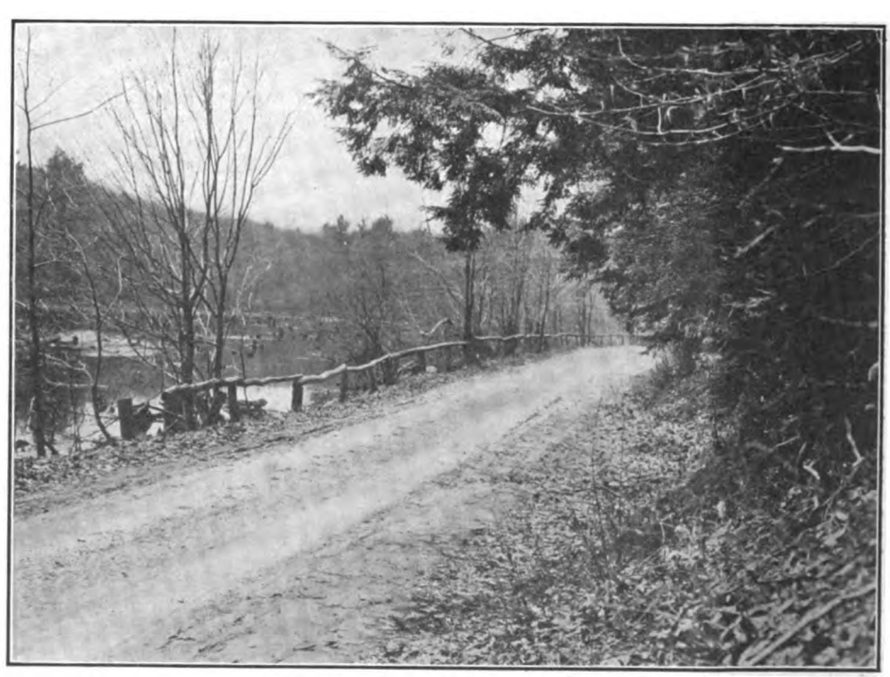
However, the Delaware gradually loses the character of a fugitive mountain stream, gathering force and volume and gaining in importance as its waters sweep past Port Jervis, Milford, Bushkill, Easton, Trenton and Bristol to Philadelphia and Camden. Here for a few minutes it floats a marine commerce suggesting that of New York Harbor, then edges a quieter way past Gloucester, Chester and Wilmington, passing with majesty out to the sea through Delaware Bay. In their course these waters have passed through some of the best farming country in central and southern New York; and over them, by bridge or ferry, passes a considerable proportion of the travel and commerce between the Atlantic seaboard and the Central West.

A DISTRICT OF HISTORICAL INTEREST.

From an historical standpoint it is no less interesting, for the Delaware rises in the country of the Six Nations, whose legends are unsurpassed; lower down it floats through an important interstate section over which the Continentals and Redcoats fought for the possession of a continent. By crossing its chilly waters by night and winning the Battle of Trenton, Washington turned the tide of the Revolution, and clinched the independence that seemed just then to be slipping away. Later on when called to assume the first presidency, the "Father of His Country" crossed the Delaware under happier auspices, and passed under the "Triumphal Arch" erected in his honor. Nor is this all—but space forbids.

The Susquehanna is larger and will average wider than the Delaware, but naturally more road travelers are acquainted with the latter. For fully two-thirds of its entire length, it is the physical boundary between four important states (the "Empire Group"), first separating New York from Pennsylvania, then Pennsylvania from New Jersey, and lastly New Jersey from Delaware. At one point the tourist may spend parts of three consecutive minutes in each one of three states, as a glance at the vicinity of Port Jervis on any accurate map will show. The Port Jervis diagram accompanying this article will bring out this point even more sharply.

To do this it would only be necessary to mark one's time in crossing the long steel toll-bridge over the Delaware River from Matamoras, Pa., into Port Jervis, N. Y., turning right on Front street, and then running nearly



A Picturesque But Little-traveled Stretch of Road Along the East Branch of the Delaware River Near the New York-Pennsylvania State Line.

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Along the Headwaters of the Delaware

straight ahead along the Erie R. R. tracks into Jersey avenue. A right turn on Main street, followed by a short left turn across the Neversink River, and almost immediately right—back toward the Delaware again—will cross the line from New York State into New Jersey, all within the radius of a mile from the center of Port Jervis. In this vicinity will be found the famous "Tri-States" rock.

GREAT VARIETY IN ROADS.

The winding, diagonal course of the Delaware, through probably more than 300 miles of beautiful, but rough, sparsely settled and largely unsubdued country, accounts in a large measure for the lack of a comprehensive road system to serve the important district it traverses. No doubt the fact that the laws, policies and methods of four different states are involved, accounts in part for this; but it is a peculiar circumstance that certain sections traversed by the Delaware have some of the most heavily traveled roads in the United States, while on stretches of the same river scarcely fifty miles away, a motorcycle has hard work to get through, and the automobile road books specially advise motor car owners to keep away from that section.

Up in New York State the country traversed by the Delaware is about midway between the Hudson and Susquehanna, and is traveled in practically every direction; but from Deposit and Hancock down to Port Jervis it has very little through touring. While the scenery is exquisite, and there is occasionally a good wide stretch of road, no trunk line has been built alongside in New York State; and on the other side is a wild, thinly settled and seldom traveled section in Pennsylvania. Then at Port Jervis there is a complete change.

From a short distance out of Matamoras, along the west side of the Delaware to the vicinity of Bushkill, the majestic river is bordered by a natural shale road, which experts agree is about the finest in the entire country. It is clean, smooth and a trifle springy without being slippery—practically dustless, and far outwears the best common gravel or macadam. Here also the shale is nearest and cheapest, for it needs only to be shoveled out of the inexhaustible banks by the roadside and spread evenly in the path of travel to begin its long and nearly perfect service.

The strategic location of the road, and the deserved fame of this 30-odd miles, is so great that all summer long and until late in the fall, one heavy stream of travel from Delaware Water Gap and below comes up through Shawnee to merge with the other stream of travel from Stroudsburg and points beyond through Marshall Creek, the two joining a short distance below Bushkill. Between that quaint little village and Port Jervis, on a summer day or evening, the combined up-and-down travel almost fills the road, now close alongside, now farther away from the river. Except for the perfect surface and almost dustless roadway, there would certainly be more accidents; for, as many of our readers will recall, at least a half dozen of the most treacherous curves imaginable are half-hidden in what may seem, only a short distance away, perfectly safe and normal stretches.

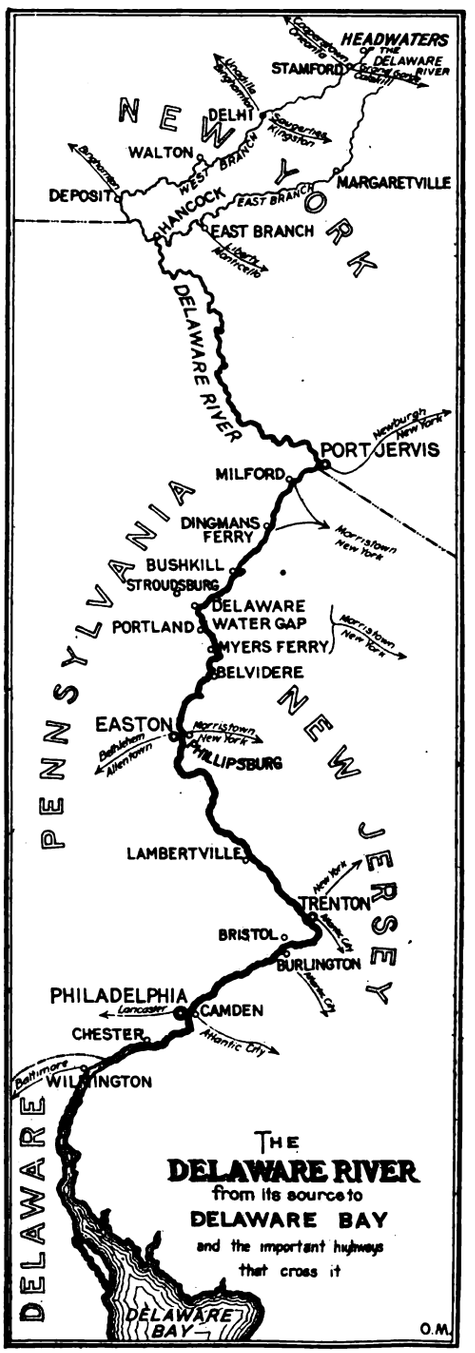
BETWEEN PORT JERVIS AND HANCOCK.

By way of contrast the roads along that part of the Delaware River between Port Jervis and Hancock or Deposit, N. Y., are comparatively deserted by tourists; of course, a considerable number of motorcycles and automobiles are owned along the line, but there is relatively little through travel. In reality, however, this is an integral part of what ought to be the shortest and most natural way from New York and northern New Jersey to Binghamton and the west. Nature was equally prodigal with scenery along the upper line, but less generous with shale, and road improvement in this section is hardly under way; so most travel either turns northeast to the Hudson Valley and goes to Binghamton over the Catskills, or else trends almost as much southwest to Stroudsburg and then up through Scranton or Wilkes-Barre, in either case at a great loss in mileage.

Both of these present alternatives will practically cease to exist just as soon as a good road is built from Port Jervis to Hancock or Deposit. Until then, however, the immense tide of road travel from New York, Newark, Suffern, Tuxedo, Newburgh, Goshen, Middletown, etc., will continue to touch the Delaware River at Port Jervis, going down the shale highway through Milford and Dingman's Ferry to Bushkill, dividing just below there for Delaware Water Gap and beyond, or for Stroudsburg and beyond. Corresponding travel will come up to Port Jervis, and either turn sharply to the right for Middletown, Goshen, Tuxedo, Suffern, New York, Newburgh, Newark, etc., or else keep a more northerly course to the Wallkill Valley and Kingston—in each case turning carefully away from that same part of the Delaware above Port Jervis.

The roads along the river between Delaware Water Gap and Easton, and also between Delaware Water Gap and Myers Ferry (on the Morristown-New York line), are a combination of good and bad—leaning more heavily toward the "bad" by latest reports. This is principally the fault of Pennsylvania, which state has made no adequate progress in meeting the good roads system which New Jersey is gradually bringing nearer to the Delaware. Below Easton splendid oiled macadam extends about 12 miles—to the point where the Trenton road turns left with the course of the river, leaving the Doylestown-Philadelphia short line.

For the remaining 22½ miles to Lambertville, the road along this superb stretch of river is the crowning disgrace to the Keystone State; the only highway is very narrow—it is almost impossible to pass a man afoot—rough and stony as the worst stretches across the Alleghenies, and absolutely unfit for contact with a rubber-tired vehicle. The two factors which leave it simply tolerable are the fine scenery and the absence of bothersome grades. New Jersey is absolved from blame for this stretch, except as that state might sooner or later be expected to shame Pennsylvania by building a new line on its own side of the river to connect Trenton, the state capital, with Easton and Delaware Water Gap by a good, fairly direct road, along what should be



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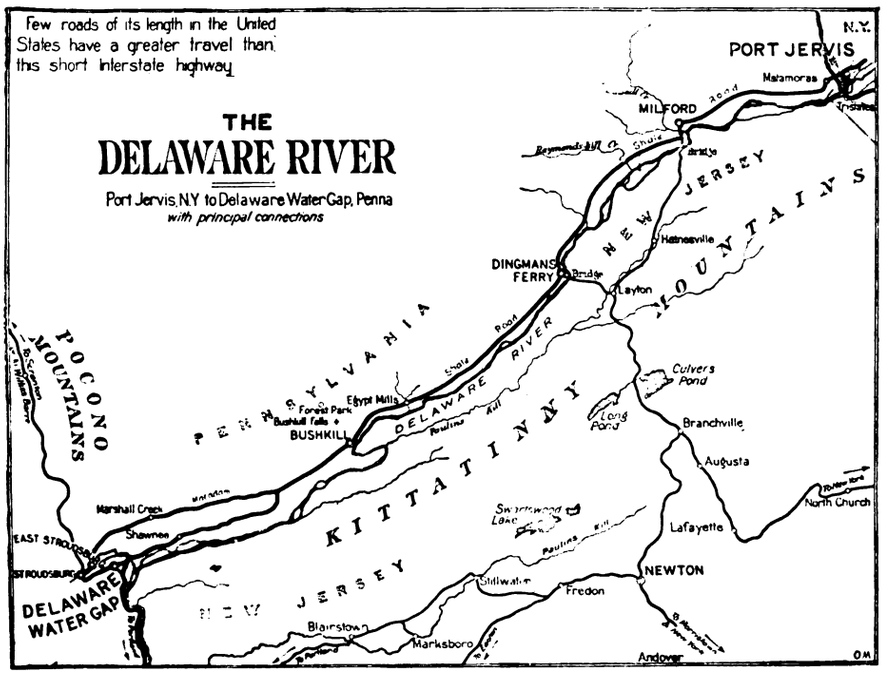


one of the best natural highways of the United States. The first of these two states to do this will secure an advantage which the other can never take away; and every year's delay means a loss that can never be made up by either of them.

TRAVEL INTO PENNSYLVANIA.

A considerable proportion of the road travel that crosses the Delaware in the Water Gap district does so in order to reach the Poconos, or on through trips to Scranton, Wilkes-Barre and beyond. You begin to climb from the river's edge and shortly come to Stroudsburg, from which point there is a choice of two main roads through these scattered Pennsylvania highlands, the choice of which depends principally on whether the destination is some point on the Scranton line or the Wilkes-Barre line. Roads are a combination of good and poor either way; in extremely dry weather they are apt to be dusty, but ordinarily cool, and as comfortable traveling as can be expected of rough country in a state where waterbars are an established institution.

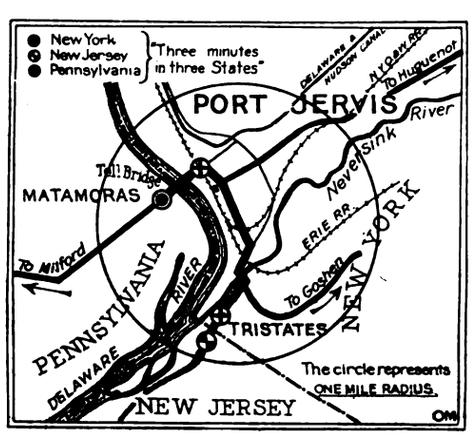
For Swiftwater, Pocono Summit station, Naomi Pines, Pocono Manor and the summer cottages in the vicinity of Pocono Lake and Long Pond, the usual way is from Delaware Water Gap through Stroudsburg, and up past Bartonsville, Tannersville and Scott Run to Swiftwater, where an iron bridge is crossed and a left-hand road taken up a long grade, affording some exquisite views of the surrounding country. The rough going most of the way from Stroudsburg to Swiftwater is now compensated for by a fine stretch of macadam, which not only extends for more than 14 miles on the way to Wilkes-Barre, but has numerous branches to nearby localities.

In starting for points on the Scranton line, one may leave Stroudsburg as if going to Wilkes-Barre—taking the right-hand road after crossing the bridge at Swiftwater, but within the last year or so, more travel has preferred the Paradise Valley, a slightly longer but very interesting and picturesque way. This road goes nearly north from Stroudsburg, running through Analomink, Henryville and Paradise (for Paradise Falls or for Cresco), gradually bearing left to Mt. Pocono. Unfortunately, there is a long stretch of very rough and uncomfortable road between Tobyhanna and Elmhurst, which discourages many trips from the Water Gap through to Scranton; so a large percentage of week-end trips turns back from the Poconos, usually reaching Morristown, Newark or New York City by some other route than the one taken outbound.

NORTHERN OR TRANS-CATSKILL LINE.

Stamford, N. Y., is the most northerly village on the Delaware River, and, as mentioned in the opening paragraph, it is on the through line from the Hudson River at Catskill across the Catskills to the Susquehanna Valley. It is a locality of fair-to-good roads, fine summer homes and superior hotels, the principal one of which, the Rexmere, is situated by the side of a pretty lake near the main road out of the village toward the west. In the town, Churchill Hall and the Hotel Hamilton provide good accommodations; they are under the same management, and at least one is open throughout the year.

The route across the Catskills from Kingston or Saugerties to Unadilla and Binghamton crosses the east branch of the Delaware



An Unique Geographic Situation—"Three Minutes in Three States."

at Margaretville and the west branch at Delhi. There are good accommodations on this line, including the Grand Hotel at Highmount Station; Margaretville and Delhi are pleasant Delaware River towns, but they are not resorts like Delaware Water Gap and Milford farther down. It is rather a land "flowing with milk and honey"—interesting to tour through, or pleasant to rest in.

ORANGE COUNTY-SULLIVAN COUNTY LINES.

The lower west side of the Hudson River—New York to Newburg inclusive—and the interior towns of Orange County, Chester, Goshen, Middletown, etc., have first-class trunk line highways in practically every direction save one—northwest toward the upper Delaware River. From Newburgh the Cochecton turnpike extends nearly direct west through Montgomery and Bullville, coming to the Sullivan County line at the Shawangunk Kill, while from Middletown a nearly direct road comes up through Fair Oaks to a junction with the Cochecton turnpike at the same county line. Travel from both directions then continues directly west through Bloomingburg and Wurtsboro to Bridgeville and Monticello, 125 miles from Middletown and approximately 15 miles farther from Newburgh. Less than 20 miles farther, as the crow flies, is the east bank of the Delaware River; and this should be the trunk line highway from most of the lower west side of the Hudson to Binghamton and the west, if the middle portion of it were improved.

A comparison of distances will show at once the economic importance of making a good road this way, especially taking into consideration that rail distances will usually average about 5 per cent. less than road distances. From New York to Middletown, Monticello, Liberty, Deposit, Windsor and Binghamton, is a total of only about 186 road miles, and this could be shortened several miles by running the line from Monticello to the Delaware River and then up to Deposit, without going through Liberty. The corresponding distance from New York to Binghamton by the Lackawanna Railroad (through Scranton) is 207 miles, and by the Erie (through Paterson Middletown and Port Jervis), 215 miles.

It is doubtful if more or greater obstacles would be encountered in building a first-class road this way than were overcome in constructing the new State Boulevard from Haverstraw to the Rockland County-Orange County line on the west side of the Hudson, and its economic value would be far greater. To go through Poughkeepsie and Albany on the way to Chicago is justified only on the score of the present unscientific road conditions, for every mile traveled over Newburgh is a mile out of the way. That city and Sandusky, Ohio, are in almost the same latitude, and the Newburgh-Albany distance must be offset—gradually but no less surely—by the southwest direction of road travel from Buffalo, around the south shore of Lake Erie to Erie, Cleveland and Sandusky. It is almost impossible to lay out a correct New York-Chicago highway without figuring on the improvement of the Delaware River line as a part of it, and their long neglect of these stretches is no credit to the foresight of the immediately interested states.

WATER GAP-MILFORD-PORT JERVIS ROUTES.

It is in this district that the Delaware River becomes of first importance to motorcyclists, on account of the fine road along the Penn-

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A Sunday Morning Round-up of Indian Enthusiasts in Sayre, Oklahoma.

sylvania side, its accessibility from many directions, the variety and beauty of the surrounding country, and the ample accommodations in the several towns. Delaware Water Gap, Bushkill, Dingman's Ferry and Milford are all on the west side of the valley within an average of 30 miles from the good roads system of northern New Jersey, and while the actual approaches to the river are not as good as they ought to be, this handicap is usually forgotten when once on the other side.

From New York, Newark and the surrounding territory, the usual route to Delaware Water Gap is through Morristown and Chester to German Valley, where a right turn is made to go up over Schooley's Mountain, the surface of which has been materially improved during the last year or so, especially on the eastern face, though it is still a stiff climb. You descend the "Mountain" and come quickly into Hackettstown, taking the left-hand road at the American House and following the main line of travel through several small towns to the Delaware River, crossing at Myers Ferry. The "ferry"—which seems not to have changed within the memory of living men—is an old-fashioned flat-boat, attached by cable to a stout wire stretched across the river, but it safely carries a large number of tourists year after year. It occupies the most natural crossing, and will probably continue to use that advantage for a long time to come, as a bridge at that point for road travel alone would probably not pay.

The balance of the way is on the Pennsylvania side through Portland, gradually coming up into the Gap along the river's edge, over a road that has been greatly improved by the building of a long concrete wall to guard the rather heavy travel at what were formerly a number of danger points. One fine view succeeds another, until finally the Gap itself is seen immediately ahead; it is impossible in so brief space to describe this locality, where a day or two may well be spent in exploration and discovery. In approaching the Gap from the Portland Road, one first passes the Kittatinny Hotel (on the right near the river), gradually turning left toward the village on the road which comes up from the D. L. & W. R. R. station.

WHERE A FINE MEAL MAY BE HAD.

Just beyond—on the left—is the road which leads up the rather steep grade to the Water Gap House, whose accommodations are first-class. Occasionally strangers hesitate to make the climb, but it is short and not as steep as sometimes thought, while the view from the top is worth it. On the main road just beyond the bridge over Cherry Creek, the Glenwood may be seen over to the left; and nearly opposite on the right starts the road to Shawnee, which runs into the Delaware Valley route, approximately 7½ miles from the Gap.

Next on the string of resort villages is Bushkill, where at "Germond's"—a comfortable but unpretentious country house, run by a real French chef of long experience—you will sit down to a meal that you will probably agree could hardly be better, with a brook of rare beauty within sight and hearing. The only trouble about dining at Germond's is that about the time you expect to be through he sends in something else that looks too good to let pass by—and he will keep it up until you flee. It is a distinct contrast to some places known to tired and hungry motorcyclists, and the worldly-wise will keep a lookout for the sign on the left-hand side of the main road just before coming into Bushkill Village from the Water Gap.

When you come to the incidental pleasure of paying the bill, you will be surprised to find out how reasonable the charge is, and you will soon be looking for a reasonable excuse to go that way again. SPECIAL CAUTION (as the road book might say)—like various other Frenchmen, Monsieur Germond is a late riser, and it will not be worth while to start out early from somewhere else, planning to make the "Rendezvous" for breakfast. Even 10 a. m. is "early" here.

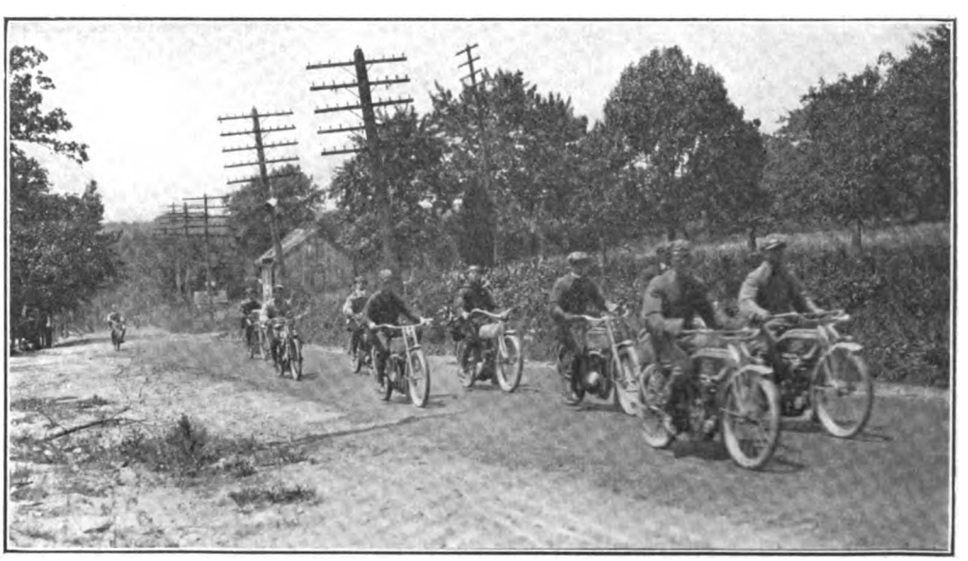
A little farther along (immediately after crossing the railroad at Bushkill station), a left-hand road leads up to Forest Park Hotel and cottages, situated in a private forest reserve of 2,000 acres on Forest Lake and Lake Tamient at an elevation of 1,600 feet. It is a somewhat long and hilly ride to Forest Park, but once up you are in what is often called the "Adirondacks of Pennsylvania." Several smaller hotels are scattered along this portion of the main road, and at the next town—Dingman's Ferry—the High Falls House, situated on the left-hand side of the main highway, probably has the best accommodations. At Dingman's one road starts nearly west to the private park of the Blooming Grove Club, whose members are mostly business or professional men of the large eastern cities, and another road crosses the river, ascending a very steep hill, and making a short route to Newton, Lake Hopatcong, Morristown and New York. The Hotel Schanno is one of the better class of road-houses on the way from Dingman's Ferry to Milford, and makes a specialty of serving meals to tourists.

WHEN THE SCENERY IS AT ITS BEST.

Milford, the largest town in this vicinity, is another way to the Blooming Grove Club, and it also has a connecting road across the Delaware to northern New Jersey. It is a curious fact that Milford has no railroad, and its principal regular connection with the outside world is by a stage line to and from Port Jervis. There must be a dozen hotels, of which the Bluff House is located upon the river, while the Fauchere and Milford Inn and Marguerite are all within a short distance of the town center; the scenery along this part of the river is unsurpassed by that of any other portion of the Delaware.

The main road from Delaware Water Gap to Port Jervis makes two right-angle turns in Milford, and then swings up the valley again, taking the right-hand road at "Pocono Farm," entering the small village of Matamoras, the last place in Pennsylvania. Immediately across the iron toll-bridge from Matamoras is Port Jervis, N. Y., the terminus of the fine river road from Delaware Water Gap, and likewise at the western edge of the

(*Concluded on page 53.*)



National Capital Squad, of Washington, on a Recent Sunday Outing.

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A Critical Moment in the Feature Event at Recent Successful Speedfest in Seattle, Wash. All the Races Were Hotly Contested.

NORTHWEST HAS FAST RACES

SEATTLE, WASH.—Three thousand spectators at "The Meadows" recently agreed that the first motorcycle meet of note in the Northwest was successful from every viewpoint. Jimmy Bergstadt was the favorite of the crowd. He is only 16 years old and is one of the youngest riders on the coast. Riding against champions, the little fellow took two seconds on a Thor single. Summaries:

Five-miles, private owners. Fred Mercer, Merkel; Bergstadt, Thor, and Zwick, Merkel. Time, 5:45½.

Five-miles, trade riders. Mercer, Merkel; Bergstadt, Thor; Zwick, Merkel. Time, 5:36. Young Bergstadt pushed the winner closely.

Ten-miles, flying start. Godfrey, Excelsior; Berrith, Excelsior, and Zwick, Merkel. Time, 9:55.

Twenty-mile for Portus Baxter trophy, Zwick, Merkel; Godfrey, Excelsior, and Berrith, Excelsior. Time, 19:52½.

The races on June 1 were not as well attended but were equally interesting. Young Berreth was easily the favorite of the crowd. He was leading the field in the Portus Baxter Trophy race when he spilled and broke his handlebar, putting him out of the going. Summaries:

Five miles, for 4 h. machines, standing start—Bergstadt, Thor; Mercer, Excelsior; White, Excelsior. Time, 5:34.

Five miles, for 7 h. machines, flying start—Cogburn, Excelsior; Pettit, Indian; Godfrey, Excelsior. Time, 5:03.

Seven miles, for 4 h. machines, flying start—Bergstadt, Thor; Mercer, Excelsior; Keller, Indian. Time, 7:37½.

Four miles, for 7 h. machines, flying start—Berreth, Merkel; Godfrey, Excelsior; Pettit, Indian. Time, 4:00½.

Twenty-five miles for Portus Baxter Trophy, free-for-all—Cogburn, Excelsior; Pettit, Indian; Godfrey, Excelsior. Time, 25:15. Best mile by Berreth in 59 seconds.

Pointers for Keeping Leggings at Their Best

Tommy Dedge Makes a Plea for More Neatness in Leg Coverings and Tells How Different Styles May be Treated to Prolong Their Life and Improve Appearances—Formulae for Cleaning.

FEW motorcyclists give more than passing attention to their leggings and as a result find that they wear out quickly and present anything but a pleasant appearance while they last. Tommy Dedge, the well-known Washington (D. C.) speedster, calls attention to this fact and offers the following suggestions for the rider who is interested in keeping his leg coverings at their best.

Says Tommy: "A strong solution of common washing soda (lukewarm) will stiffen the leather of leggings and also take out the surplus oil that has been thrown on them from the motor. A sponge may be used to best advantage to apply the solution. The leggings should be thoroughly covered with the soda solution and rolled up, but not too tightly. Care must be exercised to avoid denting in the sides of the leggings with the straps, as such dents will not add to the appearance of the leggings when they are dry. When they are perfectly dry they will be found to have resumed their original shape and they may then be blacked or treated with tan dressing, as the case may be.

"To clean tan leather leggings get a five-cent portion of oxalic acid, dissolve in a pint of water and use a sponge for the rubbing. When the leggings are clean they should be rolled and allowed to dry thoroughly. When they are ready for polishing it is necessary to rub off all the dry acid which has accumulated on the leather and then apply black or tan polish in the usual way. The oxalic acid should stand for an hour or more to dissolve. Then it needs a good shaking before it is used. All of the acid will not dissolve no matter how hard you work or how long you wait. To blacken tan leggings, clean thoroughly as directed above with oxalic acid, rub off all dry powder and apply a dye. The best I have used is sold under the name of 'Electric Dye' and is made, I believe, in Philadelphia. It is unlike other dyes and has a certain amount of oil in it which will help some when the time arrives for polishing.

"When the leggings are dry they must be cleaned of all the blue coating that has accumulated, and in some cases it may be found advisable to apply a second coat of the dye. When the dyeing operation is complete get a can of harness dressing and sponge the leggings well with this solution. Then put on black paste and proceed with the polishing. These directions should be adhered to strictly, as it is a simple matter to make a bad job when the work is done carelessly. I claim that a man's shoes and leggings are very important articles of his riding costume and that they cannot be given too much attention."

A MEXICAN BOOSTER

ONE OF the latest motorcycle boosters to become interested in the F. A. M. is Rafael Calderon, Jr., of Chihuahua, Chih., Mexico. In a recent letter to Chairman Estabrook, of the Membership Committee, Rafael stated that he had opened a motorcycle garage in Chihuahua and expressed a desire to become a member of the F. A. M. He will handle the Harley-Davidson and probably the Henderson. Rafael expects to attend the coming convention at Denver.

A REWARD OFFERED

A REWARD of $25 is offered for information leading to the recovery of a 1913 Harley-Davidson, chain drive. The machine was equipped with Prest-O-Lite tank, two lamps and a horn. The machine number is 2350. Bartlett B. Pennington, 2177 West Fourth street, Cleveland, O., offers the reward.

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Close Running Features Secret Time Run

OF a field of thirty-one, nine professionals and twenty-two amateurs, all but four finished in the secret time trial of the Atlantic City (N. J.) M. C., held on May 25. The run was witnessed by a big throng distributed all along the route, and is considered the most successful event ever held by the club. The 150 miles included three laps through the county, and the entire distance was covered without an accident. The amateurs, four of whom did not finish, started at 10 a. m., and the professionals were sent off at 10:10 a. m.

The official time proved to be 5:1:58, and some of the riders managed to keep very close to the secret schedule. The finishes are reported as follows: Amateurs.—W. Fritz, 7 Indian, 5:11; J. Patroni, 7 Indian, 5:11:15; W. K. Smith, 7 Pope, 5:13:22; B. D. Edwards, 7 Thor, 5:15:30; H. F. Carnell, 7 Excelsior, 5:19:58; R. H. Bowen, 7 Excelsior, 5:20:30; W. H. Hardin, 6 Merkel, 5:21; G. H. Keffer, 7 Indian, 5:21:45; J. L. Greenley, 7 Harley-Davidson, 5:24:30; E. Apel, 4 Harley-Davidson, 5:25:20; A. A. Blomfeldt, 7 Thor, 5:27:25; H. Miller, 7 Harley-Davidson, 5:29:46; A. Adler, 4 Thor, 5:30:32; D. C. Freas, 7 Thor, 5:31:30; H. A. Hirsch, 7 Indian, 5:31:33; H. C Stockinger, 7 Indian, 5:31:45; H. Arthur, 7 Indian, 5:37:20.

Professionals.—A. Smith, 7 Pope, 5:13:12; R. Blackeley, 7 Harley-Davidson, 5:22; C. A. Van Doran, 7 Merkel, 5:22:50; W. F. Specht, 7 Harley-Davidson, 5:30:45; W. H. Camp, 5 C. V. Stahl, 5:31; T. J. Newman, 7 Thor, 5:31:15; F. P. Gravatt, 7 Pope, 5:33:20; G. R. Armstrong, 7 Indian, 5:48:10; W. Shannon, 6 Excelsior, 5:55:50.

A PLEA FOR CO-OPERATION

OFFICIALS and members of the Atlantic City (N. J.) Motorcycle Club are confronted with a serious situation which can be remedied only by the co-operation of visiting riders. The club is endeavoring to have its members observe the traffic laws of the city and state, and its efforts have been rewarded in that the members strictly adhere to all the regulations. However, Atlantic City attracts numerous motorcycle visitors, many of whom show a total disregard for speed, muffler and other regulations. Vehicles are required to stop when approaching trolleys discharging or taking on passengers, but few if any of the visiting tourists observe this ordinance. Not only do the violators bring trouble upon the local boys, but they also submit themselves to severe fines. The department of public safety is at a loss as to how best to cope with the rapidly increasing motor traffic and the fines imposed upon violators are by no means moderate.

Aside from the trouble experienced in this way the Atlantic City club is making splendid headway. President William N. E. Shannon is one of the most enthusiastic riders in Southern New Jersey and has probably done more than any other person for the advancement of the sport in that section.

COHASSET BEACH MEET

IN THE motorcycle race meet held at Cohasset Beach on Sunday, May 25, under the auspices of the Aberdeen (Wash.) M. C., Ed. French lowered the Cohasset Beach 50-mile record and won the championship of Southwestern Washington. French's time was 48:34⅗. Archie Taft, former champion of Washington, dropped out in the ninth lap.

The second race, at 30 miles, was for singles. George French took first place in 37:45. A notable feature of the meet was the fact that both winners were practically new at the racing game. Ed. French, winner of the twin event, is only 17 years old and has been riding just a year; while George French, who won the race for singles, has been riding only a month and is 16 years old.

HOFSTATTER TAKES FEATURE EVENT

FEATURING the race meet of the Indianapolis (Ind.) M. C. on May 29, was the fifty-mile professional race, which was won by Ray Hofstatter. Erwin G. Baker, the Indian record holder, was forced to drop out because of engine trouble, leaving Ray an easy winner. Summaries:

Five miles, stripped stock machines, 61 inches—Mike Kizel, Indian; Minor Ennis, Indian; Jack Carr, Excelsior. Time, 5:36⅗.

Five-mile amateur, 30:50 open—H. Meyers, Indian; Fred Sellers, Indian; Frank Irish, Harley-Davidson. Time, 6:14.

Fifty-mile professional, open, 61 inches—Ray Hofstatter, DeLuxe; Thurman Constable, Harley-Davidson; V. O. Scanling, Indian. Time, 52:14.

Ten-mile amateur, stripped stock machine, 61 inches—Ennis, Indian; Carr, Excelsior; Hiday, Harley-Davidson. Time, 11:03⅗.

Twenty-five-mile professional, stripped stock machines, 61 inches—E. G. Baker, Indian; Carl Gossert, Indian; Ennis, Indian. Time, 27:26.

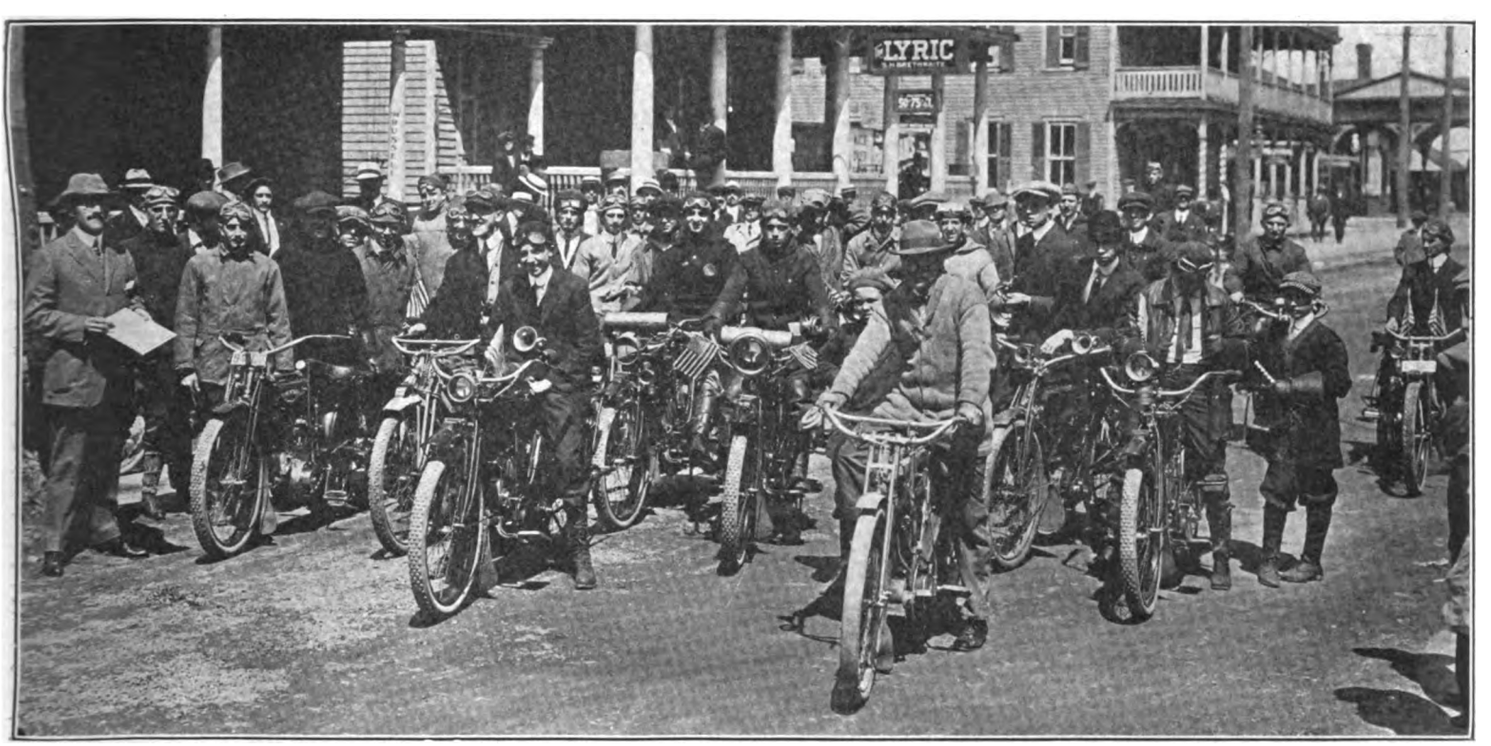
Five-mile match race—Baker, Indian, won from Hofstatter, DeLuxe. Time, 5:15⅗.

One-mile time trial—E. G. Baker, Indian. Time, 54⅗ seconds.

Ten-mile professional, 30:50 inches—Constable, Harley-Davidson; Meyers, Indian. Time, 11:26.

CANADIAN HARMONY

JUST prior to the race meet of the Toronto (Ont.) M. C., on May 24, the club requested a conference with officials of the Canadian Motorcyclists' Association, from which it had previously split off, and an understanding was reached under which the club agreed to conduct its racing program. A permanent settlement was not reached at the time, but there were strong indications that the way had been paved for future harmony. The Toronto M. C. has a large membership and its return to the fold of the Canadian governing body has aroused much favorable comment.



Starting the Amateur Division on the 150-Mile Secret Time Run of the Atlantic City (N. J.) M. C. The Professional Squad Was Much Larger.

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Fifty-Eight Starters in Maryland M. C. Trial

Out of Big Field That Participated in Two-State Reliability Event Forty-One Riders Finished—Downpour of Rain Transformed Roads into Wallows and Machines Were Subjected to Severe Tests.

THE annual two-state tour of the Maryland M. C., of Baltimore, held May 30, was one of the severest ever made by the squad. Considering the unpropitious conditions an excellent showing was made by the boys. Out of 65 entries, 58 started and 41 finished. Fifteen of the 19 professional starters completed the run, but few reached the final checking station on time.

The professionals were sent away at 6:30 a. m. They started two at a time, at one-minute intervals. The boys had covered about 20 miles when a fine rain began to fall and this gradually became a heavy downpour. About midway between Westminster and Gettysburg it came down in sheets and the roads were soon in frightful condition. Fortunately the boys got over the stretch to Gettysburg in time to avoid running through the red clay of which the road is composed. It did not stop raining entirely until 6 p. m.

Despite these conditions there was not a serious accident, a few bruises being the only injuries reported by the riders. There was little tire trouble and the motors stood the test splendidly. The performances of J. Raymond Ailsworth excited considerable favorable comment. He rode a 1910 Indian, without a clutch, and went over the entire route, finishing a few seconds behind schedule time. The tire car found him five miles out of Chambersburg with both tires flat. A new casing was put on one wheel and an inner tube on the other. When the job was completed he had only six minutes to make the control. Ailsworth was off like a shot and when the tire car pulled into Chambersburg the checker said that Ailsworth was on time. How he made the distance, over a mountain road, has all the boys guessing. There was one lady on the run, Mrs. Clark, who rode tandem with her husband, Robert L. Clark. After several spills Mr. Clark decided to discontinue the run at Newmarket, 35 miles from the finish.

After spending several days figuring up the tally sheets of the checkers the officials announced that there were fifteen perfect score men in the professional class and 24 among the amateurs. Each contestant had leeway of three minutes both ways at each checking station and if inside those limits a perfect score was given. In case more than one came in on time a penalty was arranged so that their proper places could be given in the final list. For every minute ahead two points were deducted and for each minute late, one point was taken off. There being four perfect scores in the professional class this system had to be resorted to in order to give them their relative positions. The scores follow:

Professional class—George Gephardt, 7 Indian, 1,000, penalty 2½; Carey Mears, 7 Indian, 1,000, penalty 3 points; R. H. Merryman, 9 Dayton, 1,000, penalty 6½; J. A. Robinson, 9 Dayton, 1,000, penalty 8½; D. W. Briggs, 7 Reading-Standard, 996½; Raymond Rockford, 7 Indian, 996; Bert E. Heinz, 7 Harley-Davidson, 990¼; Chester Harden, 7 Harley-Davidson, 988½; George Osborne, 9 Dayton, 981¾; C. E. Sandruck, 7 Excelsior, 979¾; James Basilicata, 7 Excelsior, 968¾; Edward A. Allard, 7 Yale, 967; Alfred Clark, 8 Henderson, 946½; Frank Schuneit, 7 Harley-Davidson, 937¾; Gus W. Heinz, 7 Harley-Davidson, 875.

Amateur class—Frank O. Boyd, 7 Indian, 1,000, penalty 5½; John Booth, 6½ Excelsior, 997½; Elmer Snyder, 6½ Excelsior, 99½; Clarence Rappold, 7 Yale, 994; Nelson Johnson, 7 Indian, 989; L. Von Ziegenhahn, 7 Indian, 988¼; J. R. Ailsworth, 4 Indian, 986; DeWitt Kemp, 7 Indian, 983; R. C. Challoner, 9 Dayton, 982¼; E. C. Burness, 7 Indian, 976¼; I. Ellis Behrman, 7 Harley-Davidson, 974½; F. E. Rasmers, 7 Indian, 968; W. F. McCauley, 5 Harley-Davidson, 962¼; Charles J. Doeller, 7 Indian, 960¾; A. F. Patzsche, 7 Indian, 960½; Charles P. Frank, 7 Harley-Davidson, 959; Andrew Gephardt, 7 Indian, 952½; Otto Doebereiner, 7 Excelsior, 947½; A. Lehman, 4 Indian, 947; Arthur C. Boehm, 4 Iver Johnson, 927½; William G. Horn, 7 Reading-Standard, 927; Frank Fertita, 4 Yale, 890¼; H. G. Morgan, 7 Thor, 890; Herman Schmidt, 7 Harley-Davidson, 868.

Among the starters who failed to finish were: Dr. J. Fred Lautenbach, Indian 7; Robert Lee Clark, Indian 7; Henry H. Hickman, Henderson 7; Arthur E. Miller, Indian 7; Sam Ambach, Indian 7; Henry Schlegal, Indian 7; Harry C. Hughes, Indian 7; Marion L. Brown, Indian 7; W. B. Mayo, Harley-Davidson 4; Theodore Falkenhahn, Merkel 7; Edward J. Wunder, Indian 4; Sidney J. Goldenburg, Indian 7; George Houser, Dayton 9; James M. Hepbron, Pope 4.

Howard A. French was chairman of the run committee and the other members were: Nelson Johnson, Elmer Snyder, W. Scott Staniford, Roger Wilkins and James Basilicata. The run officials were: William Wood, Frederick Shaffer and J. Early Codd, Baltimore; O. W. Hess, Westminster; George W. Buohl, Gettysburg; M. H. Rehrig, Chambersburg; Samuel B. Haines, Hagerstown; Murray Brish, Frederick.

PATTERSON'S SUGGESTION

F. A. M. President Recommends That Protecting Overhang on Board Tracks Be Higher Than at Present.

IN a recent letter dealing with the problem of safeguarding spectators and racers at board tracks President Patterson, of the F. A. M., refers to the overhang construction which is now being used on some of the big bowls and argues that it should be at least eight feet from the top of the incline to the point at which the overhang starts. The overhang is built out at right angles from the fence at the top of the track and is intended to prevent the racing machines from plunging over the fence or hurling their riders among the spectators. As a protective arrangement for the spectators this safeguard is effective, but it has already proved highly dangerous for the speedsters themselves.

On many occasions machines have climbed up on the perpendicular boarding at the top of the track at high speed and have been brought down safely, but with the overhang as constructed on one or two of the bowls it is low enough to strike the rider as soon as he works up off the incline. President Patterson's suggestion that the lowest point of the overhang be placed at least eight feet above the top of the incline would give racers a fighting chance to regain control even after going up on the perpendicular section.

WANDAMERE'S OPENING EVENTS

MORE than 2,500 racing fans gathered at the Wandamere Motordrome, Salt Lake City, at the opening meet held on the evening of May 30. High honors for the evening were carried away by Excelsior machines ridden by J. A. McNeil and Ray Peck. Both the Wandamere Special, the feature event, at eight miles, and the five-mile point race, Class A, were won by riders of these machines. Summaries:

Three-mile match race, Class B: First heat—T. M. Samuelson, R. Rognon, Burt Smalling. Time, 2:18⅗. Second heat—Samuelson, Rognon, Smalling. Time, 2:14⅘. Third heat—Rognon, Smalling, Samuelson. Rogon, 11 points; Samuelson, 10 points; Smalling, 7 points.

Five-mile point race, Class A: First heat—Whittler, McNeil, Peck. Time, 3:58⅗. Second heat—McNeil, Peck, Whittler. Time, 4:22⅖. Third heat—Peck, Ward, McNeil. Time, 3:47⅘. Peck, 10 points. McNeil, 10 points; Whittler, 8 points.

One-mile exhibition, introducing the Henderson—F. E. Whittler. Time, 48⅗ seconds.

Six-mile open, Class B—Samuelson, Rognon, Smalling. Time, 4:41⅗.

Wandemere Special, eight miles—McNeil, Peck. Time, 6:20⅕.

OUR FRIENDS IN THE PHOTOS

ROCHESTER, N. Y., has a 267-pound motorcyclist "Pop" Bowden, who appears astride the Pope twin picture No. 1 on page 43. He is holding a loving cup which was presented to him after a recent outing by the boys in E. W. Fisher's motorcycle headquarters. Fisher is the Pope agent in Rochester. E. W. Smith, Pope traveler in the Rochester territory, is seated at the left in the photograph.

No. 2 shows an imposing line-up of the Seattle (Wash.) police squad, mounting Excelsior machines.

Picture No. 3 shows the Press Car in the Indiana State F. A. M. run held up for tire repairs. The car was sent out by the Goodyear branch in Indianapolis, and its crew was of great assistance to the riders.

The start of the 5-mile professional event at the race meet in Toledo, Ohio, May 25, is shown in picture No. 4. The race went to Cleviston (Thor) in 6 minutes, 20⅘ seconds. No. 5 gives another view of the Toledo races. It shows two of the boys neck and neck coming into the homestretch.

Charles P. Wuler, a Wichita (Kan.) florist, makes excellent use of his Yale single in connection with his business, and picture No. 6 shows him ready for delivery trip.

DURING the past year the Hamilton (Ont.) M. C. has grown so rapidly that it has twice been compelled to move into new quarters. This is due largely to the active membership campaigns conducted by the club.

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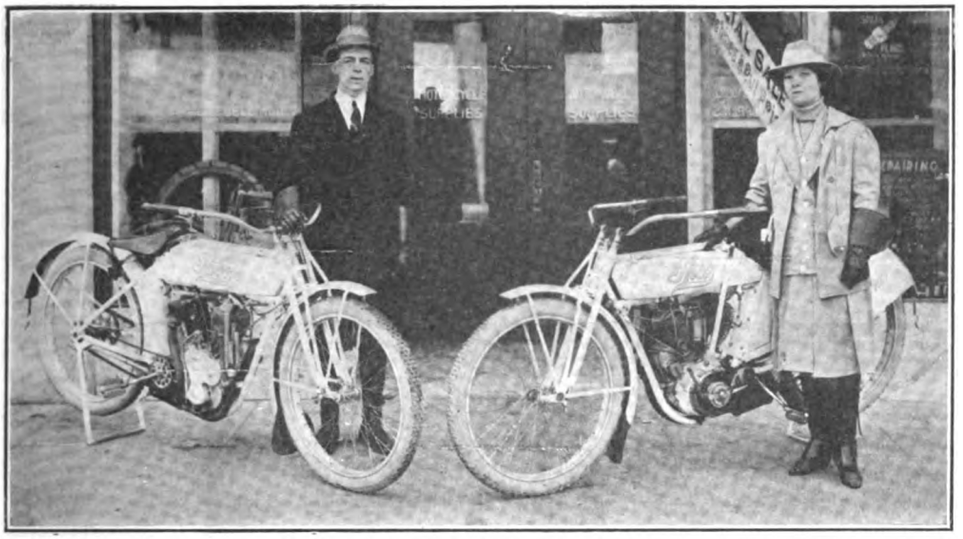

MORTON IS BOOSTING

"BUSY BOB" MORTON, former New York State F. A. M. Commissioner, and a veteran booster in the interest of the Federation, is working night and day to advance the plans that have been mapped out for the first annual convention of Empire State motorcyclists, to be held in Elmira, July 3-5, and is giving special attention to the tours. Two big divisions will travel to the convention city, one from the metropolis and the other from Lockport. Many of the details remain to be worked out and Morton is giving State Commissioner J. A. Hall all the assistance possible in order that the program may be completed without delay. An effort is being made to have a strong showing of tandemites and sidecar users on the tours. A schedule is now being arranged by which clubs all along the touring routes may join the main bodies without confusion. As each club joins it will take charge of the squad and conduct it until the next club falls in line. In this way each club will have an active part in the handling of the tours and will also facilitate travel because of full acquaintance with the roads throughout its district.

HELPING THE CAUSE

THE publicity campaign inaugurated by Frank Long, chairman of the legal action committee of the National Capital Motorcycle Club, of Washington, D. C., is meeting with continued success. Responses are coming in from motorcycle clubs and manufacturers in all parts of the country. The Rockford Motorcycle Club of Rockford, Ill., recently forwarded a check for $5, as did the Fentress-Newton Company, of Chicago. The Davis Sewing Machine Co., of Dayton, Ohio, manufacturers of Dayton motorcycles, forwarded a check for $25, the Emblem Manufacturing Co., of Angola, N. Y., contributed $10 through their local agent, Harry F. Seamark, and the Henderson Motorcycle Co., of Detroit, contributed $10 through their local agents, Osborn & Leishear. Many requests for further information have been received from interested individuals, and the prompt replies which have been forwarded by the chairman of the committee will no doubt bring substantial responses in the near future.

OUT of every two-dollar fee for a motorcycle license in Kansas, it is stated that $1.50 is to be used in the improvement of country roads.

INSPECTORS OBTAIN GOOD SERVICE

SUCH excellent service has been obtained from the two Harley-Davidson motorcycles purchased by the District of Columbia Street Cleaning Department a little more than a month ago that the officials have asked for bids for two more. The machines were used by inspectors, one of whom covered 2,800 miles on a gasoline consumption of 25 gallons, or over 100 miles to a gallon.

A NEW ZEALAND WINNER.

IN A recent tournament of the Manawtu Motorcycle Club, at the Marton Jockey Club course, New Zealand, E. L. P. Hinds, shown above, won both the 10 and 15-mile handicaps from scratch with his 4 h. Indian.

FAIR RIDER CHALLENGES

ONE of the best known feminine riders in Pacific coast territory is Mrs. E. P. Miller who appears in the accompanying photograph with her husband. Mrs. Miller has won a number of medals for endurance work in California and has also established a reputation for crowding her speedometer in competitions. She is out with a sweeping challenge to eastern motorcyclists of the fair sex, and is prepared to compete on almost any terms. Mr. Miller is also well known as a roadster in southern California and has put many a century behind him.

BUSY MARTINSBURG RIDERS

A SIDECAR and tandem run to Harrisonburg., Va., was recently made by several members of the Martinsburg (Va.) M. C. The riders were accompanied by their wives and lady friends. On Decoration Day the club held a run to Hagerstown, Md., but were disappointed as the track at that place would not permit of running the races which had been scheduled. A run to Winchester was made on June 6 to view the Southern Decoration Day celebration, and an endurance trial to Pittsburgh is planned for July 4.

BRIDGES LOST IN OHIO

JAMES R. MARKER, State Highway Commissioner of Columbus, Ohio, has just completed a map which shows the bridges washed away throughout the state during the floods. The map is dotted with black-headed pins, each pin representing a loss of $1,000, and only seven counties escaped loss. These were Adams, Erie, Carroll, Noble, Highland, Vinton and Jackson. The total loss of bridges in the State is estimated at $8,400,000. The greatest loss in any single county was in Franklin, where it reached $787,000. Other large losses were in Montgomery, $699,000; Butler, $565,000, and Hamilton, $550,000.

NEW ENTERPRISE STORE

MEMBERS of the sales and mechanical forces, as well as patrons of the Enterprise Motor & Cycle Co., of Oklahoma City, Okla., are shown in the accompanying picture, which was taken in front of the company's new headquarters. The new store is 37 x 100 and affords ample space for a large salesroom and a repair shop. The Enterprise company handles the Harley-Davidson and has already sold 185 machines this year.

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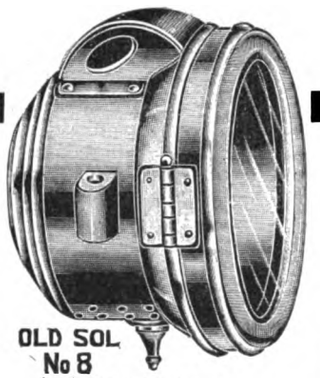


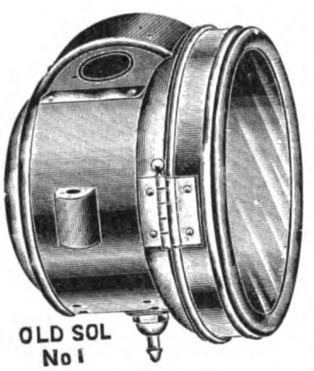
PRICE $6.50

The "OLD SOL" Line

"Too Good to

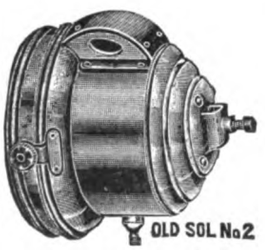
DEALERS—you cannot fail to recognize the tremendous lamps. We were the pioneer lamp manufacturers, continually **pulous** manufacturers to follow. The superiority of OLD SOL model evolved by our tireless staff of lamp experts, is almost i tion begins and ends in the lamp's **appearance.** They **cannot** struction—for they are fully covered by basic patents.

For example, the side lugs supporting the brackets and into position and reinforced by a steel plate formed to the curv coming the liability of the lamp crumbling up, should the ride BE FOUND ONLY in OLD SOL lamps.



PRICE $4.25

DEALERS—The tremendous force of OLD SOL publicity and the powerful prestige of the OLD SOL name will irresistibly sweep the tide of customers to your door. You will be making a fatal mistake if you meet this demand with an article which is palpably an imitation of the OLD SOL—of which imitations, sad to say, there are a great deal too many. Be prepared to meet this stupendous demand for OLD SOL with the genuine article.



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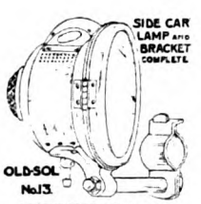

PRICE $3.00

PRICE $2.50

PRICE $2.50

PRICE

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# of Motorcycle Lamps

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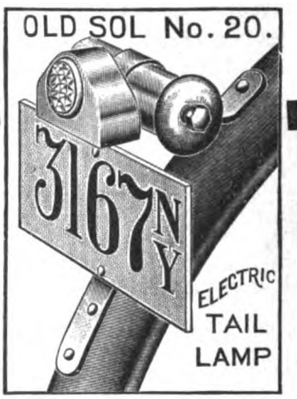
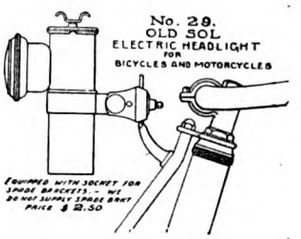
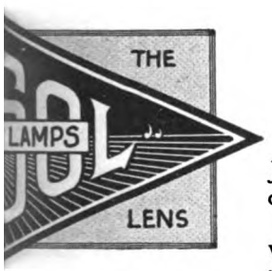


e and variety contained in the OLD SOL line of motorcycle zing the way for less progressive, less ingenious, and **less scru-** ps is so evident and so generally conceded that every new diately duplicated by other manufacturers. But this duplica- **dare not** copy the fundamental points of OLD SOL con-

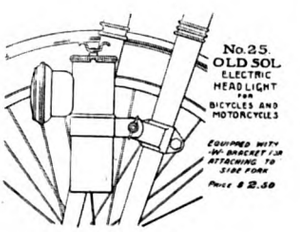
ecting to the handle bar, our No. 8 and No. 18 lamps, are riveted he lamp and giving the side of the lamp double strength, over- et with an accident. This is a most important feature and TO





You undoubtedly have calls for bicycle lamps of proven reliability. Just as far as OLD SOL motorcycle lamps outshine those of other makes, does our line of bicycle lamps outstrip the rest.

The light of lamp knowledge which shines from our catalogue is too valuable for you to overlook. A postal card will get our lamp book by return mail.



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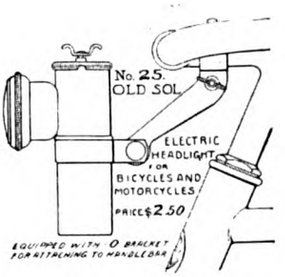
POLLOCK MANUFACTURING COMPANY, Ltd., Berlin, Ont., Canada

Pacific Coast Representative:
L. B. STEVENS, 230 Grosse Building, LOS ANGELES, CAL.



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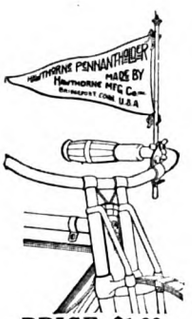

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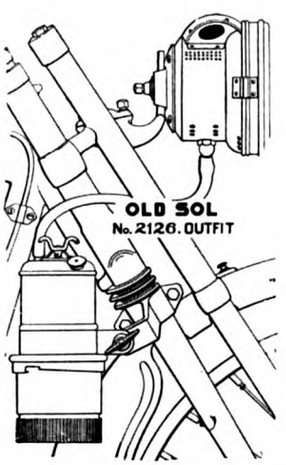

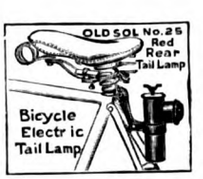

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NOVEL DRIVING ARRANGEMENT

DRIVING his Flying Merkel from the sidecar by a special arrangement, W. T. Little, of Akron, Ohio, plans to make a 2,000-mile trip through the East. His route includes Buffalo, Syracuse, Rochester, Albany, Springfield, Mass., Boston, New York City, Washington,

Harrisburg, Pittsburgh and thence back to Akron. Mr. Little and the outfit in which he will make the trip are shown in the accompanying photograph.

CHAPPLE WINS FROM THOMAS

BROOKLYN, N. Y.—Arthur Chapple carried off the honors at the Brighton Beach Motordrome on Decoration Day when he defeated Hartley Thomas, of Philadelphia, in straight heats.

George Sperl was struck by Charles Davis in one of the heats of the five-mile professional race and Sperl was thrown from his machine. He rolled to the bottom of the track, but was unhurt. His machine was wrecked. Another spill was furnished by Franz Krebs, a novice rider, in the last event.

SPILLS AT BRIGHTON

BROOKLYN, N. Y., Saturday, May 31.—A crowd of about 3,000 witnessed the races held at the Brighton Motordrome this evening. A spill featured the novice race when Pete Cronin, Bert Sayer and Bert Miller got tangled up and all three crashed to the bottom of the track. None of the riders was seriously hurt.

The first race of the evening, a four-mile professional race, took three heats to decide the winner, Charlie Davis finally flashing across the line in front.

Cox and Costello pushed Kessler to the limit in the McGraw Sweepstakes. The first heat went to Kessler after an exciting race; the second heat to Costello; Kessler turned the tables in the deciding heat, winning by a narrow margin.

CHAPPLE SCORES AGAIN

BROOKLYN, N. Y.—Last Sunday night's racing at the Brighton Motordrome was productive of close finishes. Arthur Chapple captured the 5-mile handicap after a very exciting race. Chapple rode from scratch, allowing his competitors a lap and a half handicap. Chapple rode at top speed and caught the trailers on the beginning of the second mile and gradually cut down the lead until he was on even terms at the fourth mile. He shot into the lead on the last lap, winning from George Mercier by a few feet in 3:43.

Mercier won two heats of the 5-mile professional race and Hartley Thomas won the third heat. Due to engine trouble, Thomas failed to qualify in the first two heats. Chas. Davis defeated Mike Costello in the 3-mile special match race. The novice race went to Albert Sayers, who finished first in one heat and second in the other two heats.

AN UNUSUAL REPAIR

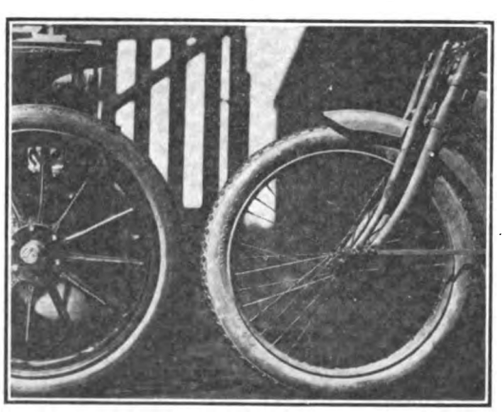
AN UNUSUAL road repair was made recently by a party of Washington (D. C.) riders on a run to Reading, Pa. Among the machines used in the run was a 1913 Emblem, which in some manner sustained a broken exhaust valve cam. The difficulty was overcome by removing the broken cam and replacing it with the intake valve cam, and by moving the intake valve push rod and tappet rod, the valve was allowed to operate automatically, while replacing the intake spring. This was replaced by a weaker spring obtained from a tire pump. Through this device the machine made the entire journey and returned by its own power, thus demonstrating its ability to run satisfactorily under adverse conditions.

TOLEDO DIRT TRACK MEETS

EIGHT events make up the schedule for the first of a series of dirt track race meets to be held by the Interstate Racing Association of Toledo, Ohio, during the 1913 season. The races will be held on the Fair Grounds track at Toledo. It is reported that considerable money has recently been spent on this track, which is now in good condition. The first meets were held on May 25 and June 8. Others included in the present schedule are booked for June 8, July 13, August 31, and September 14.

AN INTERESTING COMPARISON

PAUL J. BAILEY, advertising manager of the Consolidated Mfg. Co., recently saw a Yale motorcycle standing in front of an automobile in such a position that attention was called to the tires, and an examination disclosed the fact that the sturdy Toledo product was carrying tires of the same size as those used by the four-wheeler. He promptly obtained a photograph, which is reproduced herewith, and it is being used as a strong argument in support of the claim that Yale machines are every bit as strong as they



look. The automobile, whose front wheels appear in the picture, weighed 1,800 pounds more than the motorcycle, but its tire equipment was no more efficient than the light and speedy single-tracker.

MORE EUROPEAN TOURISTS

LEAVING the office of the Toledo *Blade* Thursday morning, June 5, Charles Swartzbaugh and John Cager started on a motorcycle trip that will take them through all the principal countries of Europe. They will ride their Yale twins to Montreal, Can., from which

point they will sail. They are carrying a letter from Governor James M. Cox, of Ohio, to the Lord Mayor of London. Swartzbaugh and Cager are shown in the accompanying picture, Swartzbaugh at the right.

CAPITOL RIDERS AT GETTYSBURG

UNDER the leadership of their former captain, George W. Beall, members of the National Capitol Motorcycle Club, of Washington, made a run to Gettysburg, Pa., on May 30. No trouble was encountered on the outward trip which carried the riders through Rockville, Damascus, Ridgeville, Frederick and Emmittsburg. At Gettysburg the party divided, the majority retracing their route to Washington. George W. Beall and A. A. Schultz proceeded to Reading, and thence through Harrisburg and Philadelphia and back to Washington by way of Havre de Grace and Baltimore. They made the entire trip of about 500 miles in less than three days.

The Merkel riders, captained by Harry F. Seamark, traversed the same route to Reading; where a day's stop was made. In returning they followed the same route as did Beall and Schultz.

ONEIDA-VERNON RACES

MOTORCYCLISTS of Oneida and Vernon, N. Y., witnessed one of the most successful dirt track meets ever held in the vicinity on May 30. The races were held under the auspices of the Oneida Motorcycle Club and the Vernon Association. Horse races and a ball game were included in the day's program, but neither compared with the motorcycle events in interest or excitement. Summaries:

Five miles; amateurs; stripped stock—Dolin, Excelsior, of Syracuse; Myers, Harley-Davidson, of Oneida; Holbrook, Indian, of Solvay. Time, 7:38.

Five miles; professionals; stripped stock—Duvall, Indian, of Syracuse; Daycock, Indian, of Oneida. Time, 7:06¼.

Five miles; amateurs; 50 cu. in. displacement.—Ryker, Indian, of Oneida; Holbrook, Indian, of Solvay; Vendetti, Reading-Standard, of Syracuse. Time, 7:01.

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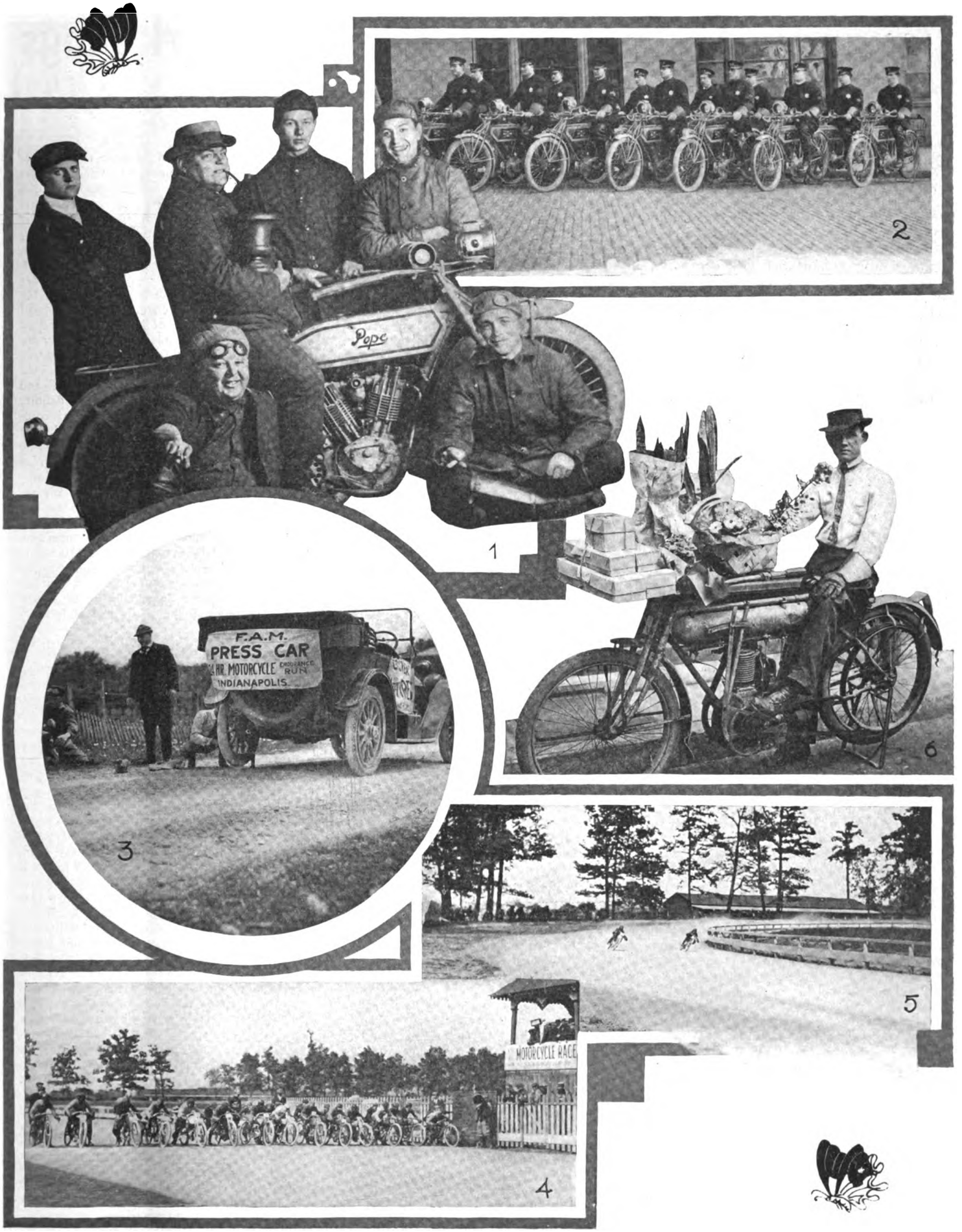

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Design and Location of High Tension Spark Plugs

Extreme Care Must be Used in Construction If Plug is to Withstand Extraordinary Strains of Ignition Service—Requirements of a Good Spark Plug and Method of Placing it Properly

By Alfred H. Bartsch.

PERFECT ignition will go far toward making the success of a gas engine, the capacity and efficient operating merits of which depend more on the perfection of that detail than on any other. Much importance is attached to the carbureter, lubricating devices and other accessories generally fitted on gas engines, but their burden, so to speak, is hardly equal to that of the operating parts of the magneto and its much abused, and often unconsidered auxiliary, the spark plug.

Lying in the dealer's showcase, or in the tool kit of the motorcycle, spark plugs appear quite simple in construction, but when the conditions under which they have to operate and the functions that they have to fulfill are understood, it will be appreciated that the designing of a spark plug involves a problem. It should, therefore, be understood that it is not merely a spark plug that is to be chosen but a perfect one.

PLUG SUBJECTED TO HEAVY STRAIN.

In the opinion of the average rider a high-tension spark plug consists of a threaded piece of metal and an insulated core having a metal wire or bar passing through its center, so arranged that a gap exists between these two metal parts. When the plug is properly connected with the ignition system, an electric current jumps across this gap at certain predetermined intervals, forming a spark as it passes. Furthermore, it is generally supposed that the spark passing across the plug electrodes will ignite the mixture, or gas charge, equally well if the sparking points are anywhere within the combustion space.

These opinions are correct in general, but the idea of the engineer and engine designer is quite different. To them the construction of a spark plug, and its location in the cylinder, are of vital importance. Special study has been given to the plug's construction and location, for the conditions of service which it is called upon to meet are difficult in the extreme. It is screwed tightly into a cylinder-head, or valve-cap, and the electrodes, or points, project into a small enclosed chamber where they are subjected not only to an intensely hot flame from one-quarter to one-half of the motor's operating time, but must withstand pressures varying almost instantaneously from less than atmospheric to four hundred pounds or higher per square inch.

In addition to that there is the moving piston inside of the chamber, which at all times must be generously lubricated, and the lubricant is often caused to lodge in the form of thick short-circuiting gum on the electrodes and the insulating members of the spark plug. The plug must operate perfectly notwithstanding these conditions.

The distance which makes the so-called spark gap must be maintained in strict accordance with engine requirements, and with the current with which it is used. The insulator must be of such a character that it will continue to offer high electrical resistance, in spite of the effect of intense heat, carbon, or burned oil.

In view of what has been said, it will no doubt be of interest to the reader to consider the most important requirements of a spark plug. Briefly, they may be analyzed as follows:

That the insulation must resist the destructive effects of heat and possess a surface which, when exposed in the combustion chamber, shall be so smooth that it will be difficult for carbon deposits to accumulate upon it. Most important of all, it must have the highest possible insulating properties and be sufficiently heavy and strong to withstand vibration and shock.

That the plug must be absolutely gas-tight—it being known, of course, that the spark plug is exposed to the high pressures existing in the cylinder—and, if possible, a design should be chosen which will prevent the leakage of this pressure.

That the electrodes be of such construction and so arranged that carbon and oil will not affect the passing of the spark. The electrodes should present the least possible resistance to the passing of the current, so that an efficient spark may be obtained at very low engine speeds.

That the electrodes be so constructed as to render pre-ignition almost impossible.

That the electrodes be made of a material which will not burn away and thereby offer greater resistance to the current.

That as far as possible all the heat of the spark should be given up to the gas, but that certain mechanical arrangements should be taken into consideration when designing the plug, so that the heat which surrounds the plug itself and is necessarily accepted, should be transmitted into the open air to prevent over-heating of the plug in general. Here is involved a very important point.

IMPORTANCE OF PLUG LOCATION.

The place in which the spark occurs makes considerable difference to the ignition results, and, therefore, in the efficiency of the engine. In the ordinary gas engine, the best practical location in which the spark can occur is about flush with the inside surface of the cylinder wall or valve cap. Theoretically, the best position would be in the center of the compressed gas, but to accomplish this result a plug would have to be used which had a very long reach, and such a plug having so much of its surface exposed to the gas would become incandescent and cause pre-ignition. If a plug with too short a reach is used, so that the spark occurs inside of the hole or chamber through which the plug is screwed, good results cannot be obtained, due to pocketing of dead gas about the electrodes, with a consequent lag in ignition of the charge. Also if a weak mixture were being obtained from the carbureter, pre-ignition would very likely occur, owing to the mixture which is left in the pocket continuing to burn, and the fresh gas entering during the induction stroke would be ignited before the proper time.

It is the opinion of some "would-be expert" motorcyclists that it is preferable to place the spark points of a plug in a pocket, as such an arrangement would tend to keep them clean. While there may be something in this opinion when a worn piston is being considered, one which allows lubricating oil to get upon the spark points, in so far as ignition alone is concerned, the idea is distinctly bad.

The idea in engine and plug designs providing for a little pocket in which the spark occurs, is supposed to be a good idea inasmuch as it will instantaneously ignite all the gas in the combustion chamber by tongues of flame shooting out of the chamber or out of the separate holes, but this is quite wrong. There would be no tongues of flame, for combustion spreads through the small chamber, through the hole or holes, and then through the main chamber at a definite rate of speed. Therefore, the speed of combustion would be considerably retarded, due to the choked passages. Small and large chambers form one combustion chamber, in reality being only divided by what we may term a baffle plate. It is obvious that the removal of this baffle plate would be an advantage. Further, the ignition of gas through small outlets or holes is extremely uncertain, if the theory of the miner's safety lamp is relevant. The reader will understand that the principle of the miner's safety lamp is that the gas cannot reach the flame, due to the smallness of the holes in the perforated metal surrounding the light.

POINTS ON SPARK PLUGS.

It is decidedly not advisable to use cheap spark plugs as they cannot give the best results and are very likely to fail at a critical moment. It is, therefore, well to give little consideration to the price, but to seek more to purchase a plug made by a well-known manufacturer, one who has a reputation for turning out a product of high quality. By this policy much trouble will be avoided.

A plug of simple construction, having at the most three sparking points, will undoubtedly prove to be the best, although it is advisable to see that the spark is produced away from the metal body of the plug so that all the heat of the spark will be given up to the gas. It is essential to have substantial sparking points made of good metal, such as nickel. If inferior metal is used, the electrodes will burn away very quickly causing trouble and waste of time.

To obtain the best results from a gas engine, a plug should be selected which will bring the sparking points as nearly as possible flush with the inside walls of the cylinder or valve cap. The spark plug cap should be adjusted so that it is about 1/50 of an inch, or in other words, .5 of a millimeter. This in casual measurement is about the thickness of an ordinary visiting card, but it would be better to use the exact measurement. See that the shoulder of the plug is smooth and true, so that when it is screwed into position it will not injure the copper asbestos gasket, or washer. It is essential that a copper gasket be used to prevent leakage, and for that reason the metric or ⅞ A. L. A. M. (S. E. A.) spark plugs are the better sizes.

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HER RIVAL

by W. G. PAULSON

I'm most dissatisfied with Dick—
I don't suppose he'll ever know it—
His conduct cuts me to the quick.
And yet I'd rather die than show it.
My meditations ever are
Disordered by one constant riddle,
Why should I—to a motorcycle—
Now play second fiddle?

In vain I toss my curls to show
The sweetest pair of turquoise earrings;
His thoughts are wandering, I know,
With silencers and two-speed gearings.
If I could find some magic drug
To change me to a carbureter,
A cylinder or a sparking plug,
I know he'd like me better.

And when I sing of tears, the rest
Entreat for more and praise my brilliance;
But Dick returns with cheery zest
To themes of rubber and resilience.
When rosy dusk to moonlight melts,
And all have vanished save the lovers,
Is it then a time to talk of belts,
And horrible outer covers?

My amber voile came home to-day,
I'm really too upset to wear it.
My heart is sore, yet strange to say,
Day after day, I grin and bear it.
He doesn't worry if I'm stiff,
Or if I snub or talk above him;
I'd break it off to-morrow, if—
I really didn't love him.

FRANK MERRITT

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Kansas Bankers Welcome Motorcycle Deputies

Short Grass Club Launches Movement to have 1750 Riders Commissioned for Patrol Service and State Banking Association will Strive to Raise all the Funds Needed for Organization.

WHEN the Kansas State Bankers' Association held its annual convention in Hutchinson not long ago one of the most important matters discussed was the proposed organization of a motorcycle patrol squad to assist in running down criminals. It was obvious that the bankers would benefit directly by any movement to discourage thieves, and that the safety of their institutions would be materially increased with a squad of fearless motorcycle deputies ready to slip into the saddles of their mounts and take to the trail at a moment's notice. Accordingly, they went on record as favoring the plan strongly, and some idea of their enthusiasm may be gained from the fact that they will endeavor to raise all the money necessary to organize such an emergency force.

At a meeting to be held June 15, Secretary P. E. Zimmerman, of the Kansas Short Grass M. C., will confer with the bankers and give them first-hand information as to the possibilities of the motorcycle in police work. He will also suggest plans for organizing the patrol. If the present movement is as successful as its advocates believe it will be a bill will be presented at the next session of the Kansas Legislature making the motorcycle patrol a permanent part of the law-enforcing machinery of the State.

Pending this official action the patrol will be developed as far as possible, and already there are many names on the applicants' list. Each member of the patrol squad will receive his deputy's commission from the sheriff of his county and he will then be in a position to answer a call at any time. The only returns will come in the form of rewards obtained through captures, so it will be up to the motorcycle deputy to bring down his quarry once he takes to the trail. Practically all the clubs of Kansas have approved the plan and promised their support.

The idea of the motorcycle patrol originated in the Kansas Short Grass Club and no rider will be eligible to wear a deputy's badge unless he is a member in good standing of that hustling organization. He must also be affiliated with the F. A. M. and be so constituted morally and physically that he may be depended upon in any kind of an emergency. An effort will be made to have all members of the patrol exempted from poll tax, city tax and State license tax. When the Legislature finally takes the matter up it is likely that arrangements will be made to pay the riders for services rendered, even though they may not be entitled to a reward for a capture.

The offices to be filled at present are as follows: One chief; eight captains; 105 lieutenants and two patrolmen in each town and city, making a total of 1750 men. Applications should be forwarded to Secretary P. E. Zimmerman, at Lindsborg, Kans.

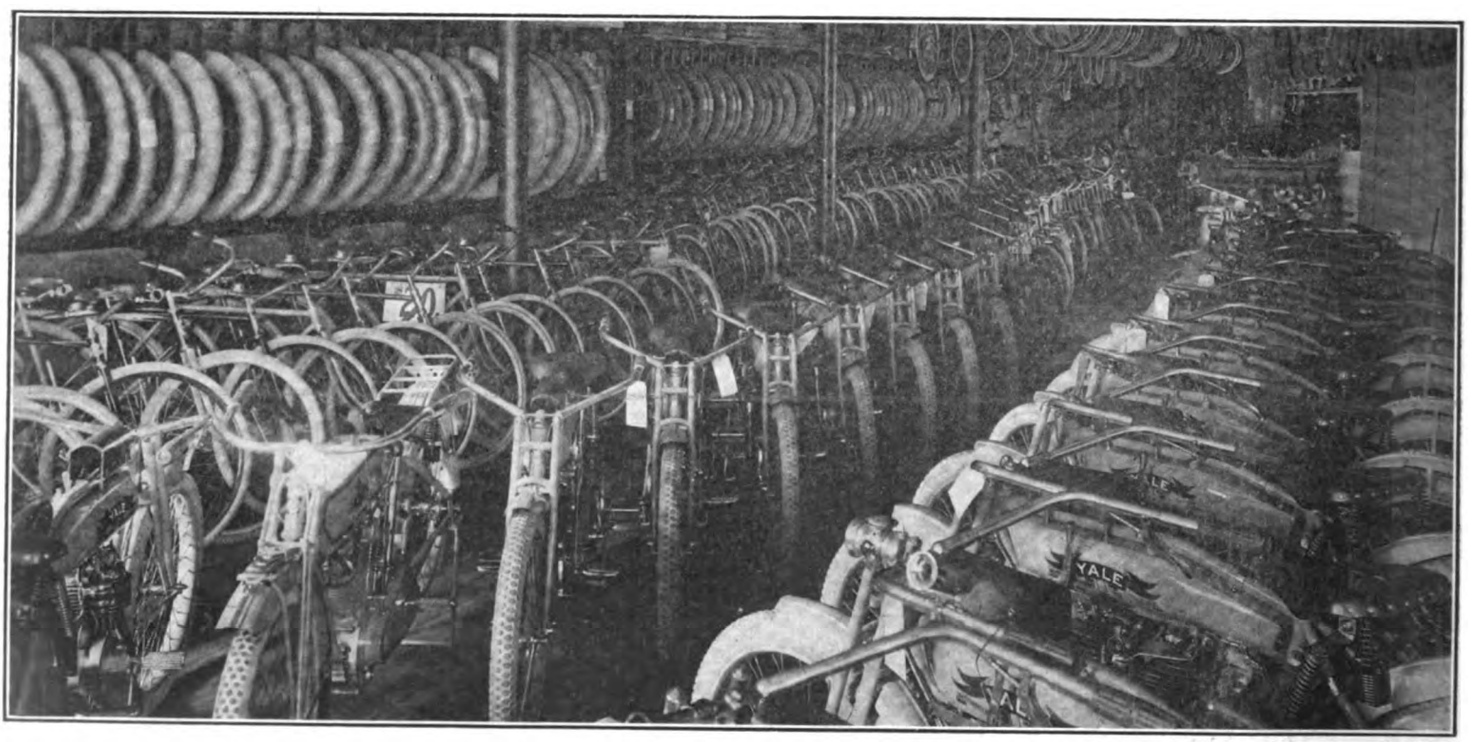
A HELPFUL DECISION

IN A case tried before Judge A. R. Malone of the police court in Washington, D. C., recently, a point relating to the use of motorcycles was brought out which is of great importance to local riders. It has been understood locally that no motorcycle could be ridden except by the owner thereof, and many owners when arrested for riding another's machine have allowed their deposits to be forfeited in the police court, to the amount of hundreds of dollars, although they were in possession of permits to operate a motorcycle.

Recently, however, a prominent local motorcyclist who is a member of the Washington Motorists' Association was arrested by Officer J. G. Dellamico, of the Ninth Precint for alleged wrongful use of a motorcycle registration number. On the rider's protesting against the interpretation of the regulation, he was allowed by the officer to depart without a deposit, subject to call. After consulting with the secretary of the automobile board and receiving an unfavorable report, Officer Dellamico summoned the rider before the police court. The rider immediately called upon W. S. Duvall, attorney for the Washington Motorists' Association, who took personal charge of the matter. The entire question of registration was taken up and it was set forth by the district authorities that although in order to properly collect the personal property taxes, it was made illegal to transfer a registration number from one machine to another—even though the property of the same owner—there was nothing in the regulations to prohibit a rider having a permit to operate a motorcycle, from driving another's machine; with its owner's consent, and with the actual owner's registration number thereon.

WINNERS IN IRISH TRIAL

INDIAN motorcycles had things pretty much their own way in the recent Irish open sidecar trial, conducted by the Dublin Motorcycle Club, the wigwam products taking first, second and fifth places. C. B. Franklin, the winner, made the only perfect score on an Indian. J. L. Walsh, who took second place with 99 points, was the winner of a special prize offered by the Hendee Mfg. Co.



An Impressive View of the Interior of the Howard Cycle Company's Headquarters in Trenton, N. J.

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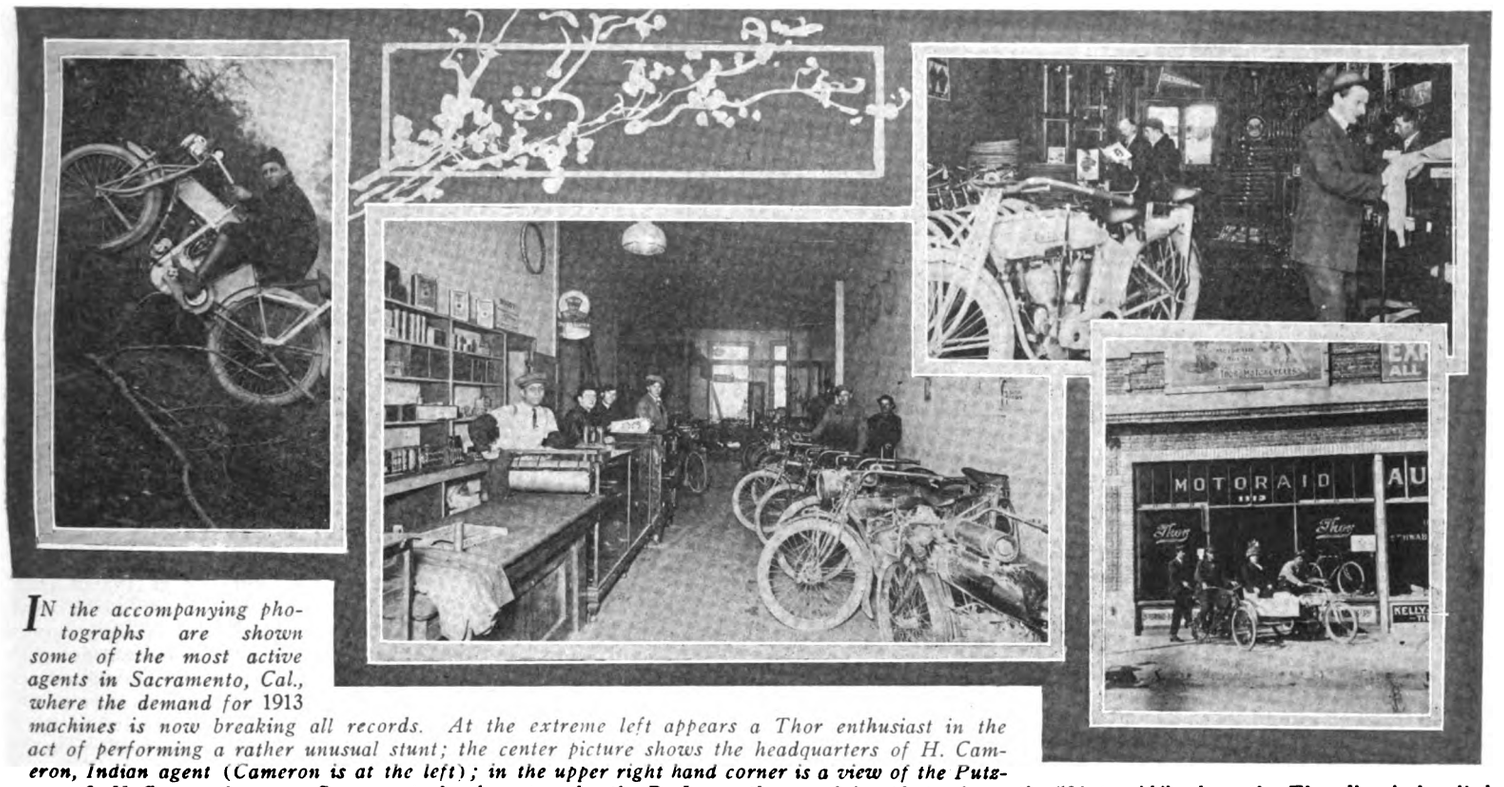

IN the accompanying photographs are shown some of the most active agents in Sacramento, Cal., where the demand for 1913 machines is now breaking all records. At the extreme left appears a Thor enthusiast in the act of performing a rather unusual stunt; the center picture shows the headquarters of H. Cameron, Indian agent (Cameron is at the left); in the upper right hand corner is a view of the Putzman & Hoffman salesroom, Sacramento headquarters for the De Luxe; the remaining photo shows the "Motoraid," where the Thor line is handled.

Picturesque Route Mapped for Sunset Ramble

Los Angeles Motorcycle Club Will Escort Big Squad of Tourists Upon Ten-Day Outing Over Ideal Roads and Through Scenic Districts, Beginning June 16—Special Features En Route.

LATE bulletins are to the effect that all is in readiness for the ten-day Sunset Ramble of the Los Angeles Motorcycle Club and that indications point to a program that will set a new standard, even for the high-pressure enthusiasts in Pacific Coast territory. The route for the Ramble was mapped by a squad of seasoned pathfinders under the direction of "Dare-Devil" Paul Derkum, and a wide-awake committee has been at work on the general plans for several months past. Derkum's most active lieutenants in the pathfinding have been Secretary A. H. McCulloh and Director F. A. Martin, of the L. A. M. C.

The Ramble will start from Los Angeles on June 16 and 110 miles will be covered on the first day, the night stop being scheduled for Santa Barbara. The party will leave the headquarters of the club, 449 West Jefferson street, at 6 a. m. and proceed through Hollywood, Cahuenga Pass, Lankershim, Van Nuys and Owensmouth over 26 miles of fine roads. The route then runs on through Calabas, Conejo and Ventura On The Sea. Beyond Ventura the new road around Casitas Pass, known as Rincon Causeway, will be followed to Carpenteria and then there will be only a short jaunt into Santa Barbara.

On the second day the tourists will cover 124 miles, from Santa Barbara to San Luis Obispo. The first division will be sent off at 6 a. m. The run for this day is along the sea. Beautiful scenery will be encountered, especially in passing through the Santa Ynez mountains at Caviota Pass. The roads are easy and the trip to the Santa Ynez valley will be a most enjoyable one. Here will be found the towns of Los Olivos and Santa Ynez, a few miles beyond the city of Santa Maria. From the last named point the route is over rolling country to the coast at Pismo, passing picturesque old Arroyo Grande.

The schedule for the third day calls for a run of about 110 miles, from San Luis Obispo to Hanford. This leg of the outing will be along the mountains hedging the great inland valley of the San Joaquin, a district of great scenic beauty. At latest reports it was understood that Hanford would be the stopping place for the night, although it was possible that a change would be made providing for the night stop at Visalia, Tulare, Porterville or Fresno. A trip of about 85 miles has been mapped for the fourth day, ending at Merced. Here there will be a banquet in the evening, followed by dancing and other entertainment features.

The run for the fifth day will be from Merced to San Jose, about 90 miles. The route lies westward into the famous Santa Clara valley. In San Jose the ramblers will stop for a day and will participate in the F. A. M. State Convention which will be in session at that time. Having spent a day in San Jose the tourists will ride on to Paso Robles on the seventh day, about 175 miles. This will be the longest run of the Ramble, but the roads are good and the country interesting. Many of the old missions will be passed and San Juan Grade and Jolan Pass will be features of this leg. At Paso Robles there will be a ball and banquet in the evening.

About 43 miles will be covered on the eighth day, to Pismo Beach. This run is expected to be one of the most enjoyable of the entire outing as the roads are ideal, the scenery pleasing and the beach itself an admirable amusement place. One of the features at Pismo will be a clam bake and a number of motorcycle races will be held on the broad smooth beach. The trip from Pismo to Santa Barbara, 110 miles, will occupy the travelers on the ninth day. They will pass again through the Santa Ynez mountains and follow the seacoast practically the entire distance to Santa Barbara.

The trip for the tenth day will be another 110-mile jaunt back to Los Angeles. The run will be over El Camino Real, affording good going and easy grades. When the riders arrive in Los Angeles they will go to the club headquarters for a big reception and banquet. The committees believe that the route chosen embraces the best roads and scenery in California, and owing to the care with which all the arrangements have been made it will be possible to make the entire trip on a surprisingly small outlay.

S. P. C. A. JOINS THE RANKS

PHILADELPHIA, PA.—The Pennsylvania Society for the Prevention of Cruelty to Animals has purchased a 7 h. Indian motorcycle for the use of Edward W. Lentz, its representative in this city. Mr. Lentz is to patrol the streets of the city on the lookout for animals that are being maltreated, and it is believed that the motorcycle will prove much more economical than a horse and carriage.

A RUN TO ALBANY

MORE than twenty members of the Springfield (Mass.) M. C. recently made a century run to Albany.

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A 450-Mile Jaunt Through Southern California

Los Angeles Tourist Found Fair to Good Roads Leading Through a District of Widely Varying Scenic Features on Run to the Mexican Border—A Single Cylinder Machine Proved Equal to All the Grades.

By Henry A. Pinaire.

IN the article which follows, Henry A. Pinaire, of Los Angeles, Cal., gives a fair idea of what southern California can offer in the way of a short tour. Pinaire followed a 450-mile circuit, including a number of the old mission settlements, and also traveled along the border line of Mexico.

"It was a warm day early last spring," writes the California tourist, "when I started out for a three-day motorcycle trip to which I had been looking forward for some time. I planned to go east from Los Angeles to Riverside, and south from Riverside to San Diego. The first town on my route was Pasadena, which is just outside the city limits of Los Angeles. From here my course lay along the Foot Hill Boulevard, which, as its name indicates, runs along the base of a long mountain range. I followed this road eastward, passing large orange and lemon groves on either side of the road. English walnuts and olive trees were also much in evidence throughout this section.

"The road was good, and about 10.30 a. m. I passed to the south of 'Baldy,' the highest peak in the range. It was covered with snow and afforded a beautiful contrast to the blooming orange and lemon groves by which I was surrounded. A few miles further on I got a fine view of the wide and fertile valley which surrounds the city of San Bernardino, where I stopped for lunch. After renewing my gasoline supply I headed toward the mountains north of San Bernardino, and to the popular Arrowhead Hot Springs. The road was good, but the grade rather steep. The Arrowhead, a formation in the side of the mountain, just below the Springs, could be seen for a number of miles.

THROUGH AN ORANGE DISTRICT.

"I rested for a short time at the Springs and then returned to San Bernardino. From there I rode southward through one of the finest orange districts en route, and reached Riverside about 4 p. m. With the exception of a couple of short stretches of oil road, which were badly worn and rough, the going was good. I stayed in Riverside overnight and the next day being Sunday, I went to church before starting my day's jaunt. The road from Riverside was in fine condition, and I soon passed through Perris. A short distance from this town is Lake Elsinor, a beautiful little body of water located between two mountains.

"My route lay through the Temecular Valley, of which Temecular is the chief town, to Fallbrook. After eating lunch at the latter place I again took to the road and soon encountered a steep grade. I had to readjust my carbureter in order to make the climb. This was the only difficulty I had on the entire trip, despite the fact that I rode a single. Shortly after leaving Escondido, a town not far from Fallbrook, I passed through the Red Mountains, which are full of dangerous curves. The roads were good and the hills not very steep. After about 30 miles' riding over roads which were generally good I reached Poway grade.

"I was now riding downhill and passed through Murphy Canyon to the Mission Valley, where I visited the remains of the old San Diego Mission. Continuing southward from here I reached San Diego about 6 p. m., having covered 135 miles for the day. I now decided to change my plans and instead of returning to Los Angeles the next day I rode south over the Mexican border to the village of Tia Juana. I passed the Mexican customs officers without having to dismount, but on returning the United States customs officials took my name, and I had to swear that I was not bringing back any goods bought in Mexico.

ON THE LAST LEG.

"I was back in San Diego in time for lunch, and in the afternoon I rode around the bay over a fine boulevard to Point Loma, where

the government lighthouse is located. The next morning I filled my gasoline and oil tanks and started on the last leg of my trip. I followed the road along the bay and across the Mission Valley to the coast route, which was over a fine boulevard to La Jolla. Leaving this point I had fair roads, as a rule, with some rough and sandy ones. At one place I came to a stretch of road which I was not permitted to use. Instead, I had to make a short detour over plowed ground and soon struck the main road again. I stopped at the Old Mission at San Juan for lunch. This is one of the oldest and largest of the many missions which lay along the coast route of California, south of San Francisco and extending into Mexico. This mission was founded in 1776 and some of the original adobe walls are still standing, while a few of the buildings are used to this day as residences.

"Leaving this settlement I rode through some fertile farming land and again entered the orange and lemon district, which is more prosperous than the section in which I had been traveling. At Santa Anna I turned west to the coast at Long Beach, where I again struck a good boulevard, which, after the roads I had been riding, seemed quite a treat. I covered the remaining 22 miles from Long Beach to Los Angeles in jig time, arriving in the latter place about 5:30 p. m. I hade ridden about 150 miles since morning. This trip, although not long, affords a wonderful variety of scenery with roads generally good, but with enough poor ones to make it interesting."

INDIAN DAY PICNIC

"BIG CHIEF" SWENSON, of Providence, R. I., has set aside June 22 as Indian Day and has invited all Indian riders to be his guests at a picnic to be held at Hillside Farm, Noose Neck. The riders will assemble on Exchange Place at 9:30 a. m. and all must know the pass words: "Count the Indians on the Road." Refreshments will be served free and many games have been planned. There will be a 100-pound porker turned loose in an eight-acre field and the one catching it and holding it the longest will become its owner. A ball game, a tug-of-war and a hillclimb are included in the list of events for men. For ladies Swenson has arranged a potato or egg race, tug-of-war between tandem and sidecar girls and a 100-yard dash. Useful prizes will be given to the winners of all events.

ABOUT THE PHOTOS

PICTURE No. 1 on the opposite page shows four California enthusiasts on the Vallejo-Napa road, three miles north of Vallejo. This is a splendid road all the way to Calistoga, about 45 miles. In the vicinity of Napa there is some especially attractive country. Near Calistoga is the celebrated petrified forest.

Not long ago St. Petersburg, Fla., had a "White Way" carnival with a view of interesting the citizens in better lighting facilities for the town, and a prize was offered for the most attractive exhibit in a parade. The award went to Mr. Parker, chief electrician of the local power company, who decorated his Pope twin as shown in picture No. 3. The outfit scored a tremendous hit.

H. A. Stewart, of Indianapolis, a member of the Indianapolis M. C., appears in photograph No. 2. Stewart is now on his way across the country with San Francisco as his destination. He is a well-known rider, having devoted all of last summer to long path-finding trips for an Indianapolis map company.

Photograph No. 4 shows the new Jefferson agency at 816 Ninth street, N. W., Washington, D. C. Proprietor Sam McPherson is on the motorcycle and Mrs. McPherson is seen standing at the entrance.

M. E. Remelin, of the Bumiller-Remelin Co., Cincinnati, Ohio, is the central figure in picture No. 5. Some of the Cincinnati boys were talking of racing on a recent outing and the genial Remelin straddled the wierd-looking mount shown in the photograph and offered to give any of them a whirl or two. No one picked up his challenge.

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Motorcycle Boosters Throughout the Country Who Figure in News of the Day.

See Opposite Page for Article Relative to Photographs.

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ECLIPSE

The Brake You Can Trust

Confidence!

Ah! What a superb feeling of absolute delight the rider experiences while coasting down some steep hill, with the cool breeze whistling past him, a great panorama of rolling hills beneath him and, best of all, an ***absolute riding confidence,*** born of the knowledge that in an emergency he can bring his mount to an abrupt halt—in its own length. It is equipped with the ECLIPSE PERFECTION MULTIPLE DISC BRAKE.

The Eclipse Perfection Multiple Disc Brake is stronger, proportionately, than the most powerful automobile brake ever made.

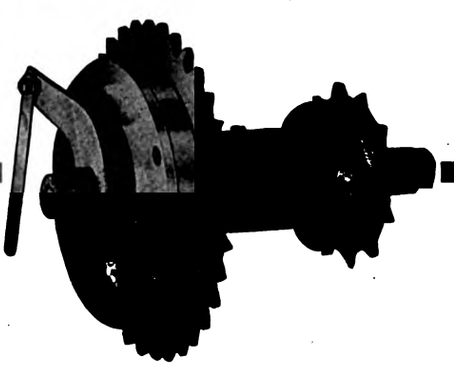
It has a braking surface of more than 100 square inches. That means for every three and a half pounds weight there is one square inch of braking surface.

THE MOST POWERFUL AUTOMOBILE BRAKE MADE MUST WITHSTAND 9½ pounds weight to the SQUARE INCH.

For every use to which a brake may be put, side-car, tandem and solo riding, on the steepest gradients, the ECLIPSE BRAKE works with unfailing accuracy and immediacy. Its ball-bearing construction, combined with its ideal lubrication system, makes it practically indestructible.

Riders—ask your dealer to show you the perfect action of the Eclipse. He'll be proud to show it to you.

Eclipse Machine Company



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MOTORCYCLE ILLUSTRATED

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PAID CIRCULATION THIS ISSUE, 13,825 COPIES.

OWING to its large circulation, it requires two full days of 24 hours each, after the last form has closed, to print, bind and mail a full edition of MOTORCYCLE ILLUSTRATED. In view also of the fact that this publication is read in more than 2,400 different cities, towns and villages in the United States, its wide distribution demands that each issue be placed in the mails not later than noon every other Thursday, the date of publication. In order to make the mails at this time, forms must close not later than 6 p. m. Tuesday, and advertising copy cannot, therefore, be handled if received later than Tuesday morning.

This applies also to text matter. Photographs should reach us not later than Monday morning preceding each date of issue. They will be given better attention if reaching us the Saturday preceding.

MOTORCYCLE ILLUSTRATED requires correspondence and subscription agents in many towns where the paper is not already so represented; we pay a liberal commission to subscription agents, and the best space rates for text-matter, drawings and photographs.

EDITORIAL VIEWPOINTS

DESPITE the strenuous efforts of Commissioner McLain to make it a success, it cannot be said that the Indiana State Convention came up to expectations. It is surely to be hoped that the Ohio and New York State meets, to be held in Cleveland and Elmira, respectively, will each have a much larger attendance. At the Columbus National Assembly last year the delegates, in response to an apparent demand for more representation on the part of clubs and individuals, voted unanimously in favor of State organizations, thus affording to all F. A. M. members an opportunity to actively participate in the government of the national body. Under the Constitution and By-Laws, they have the right to elect State commissioners and delegates, recommend State referees, and exercise within their respective States all the powers that are not expressly delegated to the organization at large. But this is not possible unless the members take part in the various State conventions. Not only is that their privilege, but it also ought to be regarded as a duty, as the national officials desire and need just that sort of local and State co-operation.

CO-OPERATING WITH THE STATE ORGANIZATIONS.

WHEREVER State F. A. M. bodies have prepared convention plans—and a number of fine programs are now in readiness—a special appeal has been made requesting affiliated clubs to schedule their individual runs and race meets so that they will not conflict with the State event, and it would seem that such co-operation should follow naturally. Still, in more than one instance a State Commissioner has been kept on the anxious seat by the announcement that a club event of considerable importance would be staged simultaneously with the State program or immediately preceding it. It stands to reason that any racing or entertainment program carried through in the vicinity of the State convention city must "steal some of the thunder" of the latter, and for this reason affiliated clubs can reasonably be expected to give the State organization the right of way under all ordinary conditions.

ANOTHER MYSTERIOUS RULING AGAINST MOTORCYCLES.

THAT there are still existing a few of the unreasonable prejudices which hampered the early development of motorcycle interest in this country cannot be denied by even the most optimistic friend of the single-tracker, and from time to time these evidences of mysterious disapproval crop out at unsuspected points. A few days ago a Yonkers, N. Y., motorcyclist discovered that it would be impossible to transport his machine on either the trains or boats of the Central Railroad Company of New Jersey. A letter from the passenger department of the company informed him that motorcycles would not be carried under existing baggage regulations, and that no special tariff covering the transportation of the machines has been filed. This amounts to a ban on the motor two-wheelers, and it is an especially onerous ruling as applied to the company's boats, which ply between New York City and Jersey coast points on the Sandy Hook route.

The matter has been promptly taken up by Chairman Sauer, of the National F. A. M. Committee on Legal Action, and a modification of the ruling is hoped for. Still, the fact remains that the Central Railroad Company disapproves of transporting motorcycles, and that its decision, as at present interpreted, admits of no qualification. It is but fair to state that the shipping of a motorcycle involves some unusual conditions, but certainly none that justifies the C. R. R. company's attitude. It is not the simplest task in the world to lift a motor two-wheeler into or out of a baggage car, but this may also be said of numerous other articles that are carried without question. Assuming that extra trouble and responsibility were imposed, it would not be unreasonable to expect a special tariff, but the company has not seen its way clear to make concessions, even on this basis.

The objections cannot be built upon the claim that gasoline, carried in the tank, would subject the company to excessive risk, for the Yonkers rider took considerable pains to explain that the fuel tank would be emptied before the machine was offered for transportation. Some light is thrown upon the situation by the announcement that the ruling in question applies also to automobiles and aeroplanes. Obviously, neither of these motor vehicles could be carried in a baggage car, nor could they be transported under ordinary conditions on the C. R. R. boats. But the motorcycle can be transported by either land or water routes and with little more trouble than would be involved in the shipping of a bicycle. Minus its gasoline, the motorcycle becomes simply a heavy bicycle, capable of entering a train or boat by any passage that admits the general run of baggage. Nor does it occupy much more room than a bicycle.

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PICKED UP ON HIGHWAYS & BYWAYS

ARTHUR CHAPPLE, dean of the Brighton Beach racing squad, was on his way to the motordrome from New York one afternoon recently when he overheard a conversation between a fair enthusiast and her escort in a B. R. T. car. "Oh, let's go to the track in preference to Coney," exclaimed the girls. "If we miss a night at Brighton I just know there'll be a fine smash-up and we won't see it." Chapple moved to another seat.

AN ENGLISH exchange believes the time is ripe for a "motorcyclette," to sell at $80 to $100 and embody the following features: Two-stroke twin motor generating one horsepower; variable gear; control by three levers, operating brake, gears and throttle; weight of 80 pounds.

O. C. GODFREY, the well-known Indian pilot in England, was recently married to Miss Muff Archer, an actress and dancer.

"COUNT me out of racing for this season unless there is a chance to do something really worth while," says Johnny Constant, the amateur champ. "Meeting all comers on all kinds of tracks is too risky for the returns it gives."

AT LATEST reports the Abernathy kids, on their way by motorcycle from Oklahoma City to New York, were breaking even with their schedule and giving the laugh to sand and rough going in the Southwest.

A FEW more such trips as the Kansas Short Grass Tour and the Sunset Ramble of the Los Angeles Club, for which plans are now ready, and the incredulous public will no doubt arrive at the conclusion that motorcycles are being used for pleasure purposes.

REPORT has it that the engineers at the Marconi wireless stations in Ireland run the internal combustion engines which operate their dynamos on a spirit extracted from peat. Go easy; it may still be discovered that the Standard Oil folks own the peat.

J. H. WILKINSON, of Doncaster, Eng., is the inventor of a new motorcycle carbureter with twelve jets. A valve semi-rotated by Bowden wire to the handlebar covers and uncovers the jets. The inventor claims more power; greater flexibility; low fuel consumption; rapid acceleration without choking; independence of atmospheric conditions; non-stoppage of jets and perfect vaporization. For cooling the motor all the jets may be closed and the air-lever opened.

A NEW accessory arrival abroad is a neat circular leather case designed to hold and protect an inner tube when the latter is wrapped around the handlebar near the steering-head. A lock is provided as insurance against theft.

WAR is h——! The Herts M. C. in a recent English hill-climb used a small cannon to start the contestants. As a rider was getting under way the cannon swung about and was fired across the road accidentally. The rider crashed into a bank and went down for the count.

MAKERS of the English John Bull tires furnish motorcyclists with booklets in which to note their daily mileages. The riders with the highest mileages on these tires will be awarded prizes by the company.

SAYS Tommy Dedge, the Washington (D. C.) speedster: "A bird-cage spring can be used to advantage to hold a carbureter open while racing on dirt tracks, with mixers that are prone to 'walk' closed while oil is being pumped."

WHEN it is desired to raise or lower the gravity of oil by mixing, warm the two oils to about blood heat before attempting to blend them. If handled cold the mixing will not be successful, the heavier oil going to the bottom and remaining there.

G. E. STANLEY, the speedy Britisher who pilots the Singer, breeds prize bulldogs as a hobby. Two of his entrants in a recent show won firsts.

SECRETARY-TREASURER GIBSON, of the F. A. M., now has a staff of six assistants and reports that they are always on the jump owing to the rapidity with which the Federation work has piled up of late.

RULING of the Central Railroad of New Jersey that motorcycles will not be transported on its lines may be intended as a "comeback" against riders who have been racing with the company's trains—and running away from them.

TERRE HAUTE (Ind.) correspondent suggests that F. A. M. clubs award prizes on sociability runs to riders with neatest costumes and mounts, with a view of improving the standing of the sport in the eyes of non-riders. A good idea, and timely.

MOTORCYCLE registrations in Johannesburg, South Africa, for the first three months of the current year were 1,204, as against 1,446 for the whole of 1912. The records show 67 makes of machines in use.

STATE COMMISSIONER J. A. Hall, of New York, has launched the *Empire State Bulletin*, a tidy little sheet which will be issued monthly in the interest of New York State riders and the F. A. M. in general. Write for a copy, addressing Mr. Hall, at 322 East Thirty-second street, Brooklyn, N. Y.

H. H. ALDRIDGE, circulation manager of the *News of the World*, an English weekly with a circulation of 2,250,000, says the Britishers make better time than we do in distributing newspapers. They use motorcycles. Mr. Aldridge is now visiting in this country.

ENGLISH Army Council has decided to use more motorcycles than ever before in the 1913 maneuver, both the Territorial Army and Expeditionary forces being equipped with them.

BRITISH motorcyclist has experimented with linen bag enclosing carbureter to keep out dust and grit and finds more satisfactory running.

TOURIST just in from Columbus reports a bad ten-mile stretch of road just east of Geneva, N. Y. Road was practically impassable during a rainfall and he believes it would afford rough going even in clear weather.

ENGLISH writer compliments us upon the fact that we have not acquired the habit of wearing our riding caps with the peak behind, as they do abroad. Haven't time to bother turning them about, old chap; that's about the truth of it.

LATE reports on the route from Springfield, Mass., to New York City, through Hartford, are to the effect that the roads are in good condition.

IF YOU learn of the location of a speed trap, bulletin the F. A. M. Touring Bureau, 51 Chambers street, New York, and thus warn other riders. A postcard will do the trick.

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TOURS IN THE DELAWARE RIVER COUNTRY

(*Continued from page 39.*)

good roads system of Orange County. This makes a fine through route from the Water Gap, Bushkill, Dingman's, Milford and intermediate points either to Goshen, Chester, Monroe, Tuxedo, Suffern, New York, Newark, etc., or to Middletown, Newburgh and the east side of the Hudson River.

Of course these trips are frequently reversed and also varied at times by using the lines that cross northern New Jersey to the Delaware River at Milford or Dingman's. Port Jervis is not only a disappointing town to go through, but it has rather inferior accommodations, considering its importance as an interstate route center, and ought to be a first-rate opening for an experienced, enterprising hotel man with capital enough to build up an entirely new establishment.

Travel from Philadelphia and below to the Water Gap-Port Jervis section of the Delaware River divides about evenly between two principal routes: (1) via Willow Grove, Doylestown, Easton and Portland, and (2) via Sellersville, Quakertown, Allentown, Bethlehem, Nazareth, Wind Gap, Saylorsburg and the Cherry Valley. The former comes into the line of the Delaware River 12 miles below Easton, and follows it the balance of the way, while the latter takes a more inland course, and does not touch the Delaware until actually at the Gap; neither way is good throughout, but both are considerably traveled during the summer and fall. There would be another option from Philadelphia, via Trenton, except for the narrow, stony and tire-destroying road most of the way from Lambertville to Easton by that line.

Tours from Reading, Harrisburg and points south and west from Harrisburg usually take the short route from Reading through Allentown to Bethlehem, where they either continue on to Easton, and go up the west side of the Delaware to the Water Gap, or else take the Bethlehem-Cherry Valley line through Wind Gap and Saylorsburg. From Wilkes-Barre and Scranton (including trips from northeastern Pennsylvania and southern New York State points through the "Anthracite Capitals") the natural way is through the Poconos to Stroudsburg, where a left turn is made through East Stroudsburg for Bushkill, Dingman's, Milford and Port Jervis (without going through the Water Gap); or else the nearly direct road is followed through Stroudsburg four miles to the Water Gap. There is another line from Scranton through Carbondale and Honesdale to Milford, but it is not much traveled on account of very bad road, especially between Scranton and Carbondale, in the anthracite mining country.

TRENTON-PHILADELPHIA-WILMINGTON.

Trips from New York to Philadelphia and beyond first meet the Delaware River at Trenton. The usual way is to turn right at the central 4-corners (Broad and State streets), pass the state capitol and turn left on Calhoun street, crossing the toll-bridge over the Delaware River, which is here also the interstate boundary. By going to Philadelphia through Langhorne, Bustleton and Ogontz, the Delaware River is not seen again en route; but if the Jersey side be taken—via Bordentown, Burlington and Camden—it will be seen frequently, and finally crossed by ferry in going into the Quaker City.

In traveling from Philadelphia to Chester and Wilmington, the Delaware River is on the left a considerable part of the way, then it disappears in a southwesterly direction and is seen no more unless one turns down into the State of Delaware. That part of New Jersey on the opposite side of the river is comparatively little traveled by strangers, and its character and appearance are so changed that one can hardly imagine it a part of the same stream that flows quietly through Stamford and Delhi in the Catskills and moves majestically through the Water Gap. The Delaware River country and the Pocono Mountains provide a liberal choice of week-end trips for the business man of New York, Newark, New Brunswick, Trenton, Philadelphia, Paterson, Middletown, Newburgh, etc., when longer tours might be out of the question.

You may stay right at your desk until Saturday noon in any of these cities, or their surrounding towns, lunch and get away in comparative leisure, and still ride without undue haste to practically any point on the Delaware River between Port Jervis, N. Y., and Easton, Pa., or to the principal Pocono resorts before dark.

Half of Sunday may be spent at rest, and the trip home may be made in the afternoon; or a very early start made on Monday morning and the office reached during the late forenoon. The expense is comparatively small and the benefits extend at least through the week—usually beyond. There is usually no trouble about getting suitable accommodations in this district, except perhaps for Saturday night and Sunday, though it is always worth while to telephone ahead for rooms.

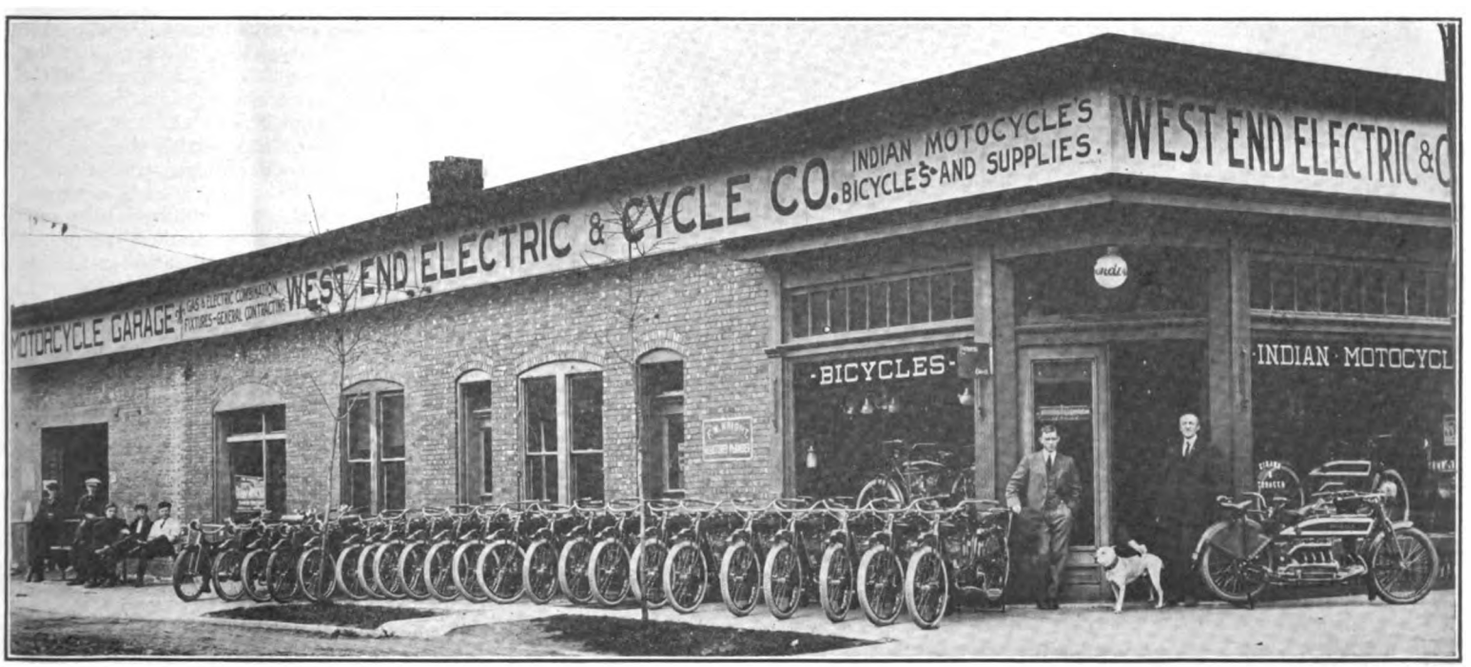
SHIPMENTS TO BRAZIL

AMONG the May shipments of the Majestic Mfg. Co., of Worcester, Mass., was one embodying six of the firm's cozy sidecars for an agency in Rio de Janeiro, Brazil. The sidecars were forwarded from New York in connection with a shipment of motorcycles from the Henderson Motorcycle Co., of Detroit. These initial orders have been followed up by repeat orders to both the sidecar and motorcycle manufacturers, thus affording the strongest proof possible that the products measured up to every expectation upon their arrival in Brazil. The Majestic company now has agencies in the Philippines and in the Hawaiian Islands.

TO BUY MORE MACHINES

THE ONLY motorcycle used by the Sacramento fire department is an Indian which was bought last year. The machine has seen steady service and has given such satisfaction that the department contemplates purchasing several more during the present summer.

MEMBERS of the newly-organized motorcycle club of St. Cloud, Minn., recently participated in a run to Paynesville.



A Busy Harrisburg (Pa.) Agency, Which Is Also the Headquarters of the Prosperous West End Motorcycle Club

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Pittsburgh Rider's Clever Address at Club Banquet

Toastmaster Kenneth E. Banks Prefaced Introduction of Director Sauer During Recent Tour by Reminiscent Remarks That "Brought Down the House" Following Banquet by the Pittsburgh M. C.

EASILY the cleverest address delivered in introducing Director Sauer during his recent F. A. M. tour was the one given by Kenneth E. Banks, toastmaster of the banquet of the Pittsburgh M. C. Banks succeeded admirably in arousing the risibilities of his auditors and generally adding to the gayety of the occasion. His address follows:

"Ladies and Gentlemen:—

"That is, I hope that we would all be gentlemen if there were any ladies present.

"It gives me great pleasure to welcome you to this, the first annual banquet of the Pittsburgh Motorcycle Club. In this club we have at last realized our fondest hopes for a permanent organization and for one that will run without giving it 'gas' to keep it going or to put it to sleep. This city and the surrounding territory have a large enough number of enthusiastic motorcyclists to put this club where it should be, among the foremost in this country.

The motorcycle is today conceded to be the cheapest obtainable means of transportation. We often give the old 'bus' a 'shot of gas,' but we do not have to call in the city fallmaster as we do when we shoot a horse. Even the horse on the merry-go-round takes a back seat when the fiery two-wheeled steed enters the field, and the horse-fly has no chance at all. The motorcycle has placed the geography of this country before thousands who knew no transportation before but the trolley or the one-horse-shay, and to whom geography meant a book about a foot square. There is today no more exhilarating pastime than a dash through the fresh country air astride a good motorcycle. And, when I say a good motorcycle, you cannot appreciate just what I mean unless you travel with me back to the days when the motor-bike was a half-grown infant. Then you rode astride a hard-leather saddle with your feet resting on tin bicycle pedals. The tank, in all probability, was fastened to the rear mud-guard like a camel-back engine and the seat post grew right out of the top of the cylinder head. I remember a fellow who was riding one of these 'crocks' away back in the early 1900s who was caught in a rain storm, and the heat from the great, big two horsepower cylinder warped his legs so badly that he had to wear his trousers to bed to keep his legs from being frost-bitten.

"When you rode a 'hack' like that and hit a bump going at anything over 8 miles an hour it felt just as though the dentist had you flat on your back and was trying to take your wisdom teeth from you against your will. To start it, you would probably have to tear down the engine to prime it and would then pedal it a couple of city blocks or take it to the nearest down grade to get a spark. That is, if the front door-bell battery was alive when you pinched it for your spark case. After you got a spark and it spluttered half way up the other side of the hill, you would probably pedal your head off or dismount and run alongside to keep the engine from losing heart. You would then drop a pedal or pick up a horseshoe nail for luck, or any other sharp article placed alongside the road for that purpose, and then sit down beside the road and proceed to make the air blue while you sandpapered the joint. It was a hard job in those days to get back home the same day unless you 'looped-the-loop' around your own house.

"Today, with our modern motorcycle, we start the engine on the stand and start out with as little concern as does the owner of the highest priced four-wheeler. Our 3-inch tires, double brakes, two-speed gears, tandem attachments and cushion frames have placed the rider in a position where his own indiscretion alone can be responsible for his non-arrival at his destination.

"We read of all sorts of uses to which the 'bus' is placed, such as doing the family washing, propelling a sled in the winter time, rounding up the cattle out West and grinding corn for the chickens. Speaking of chickens, reminds me of a habit they have over in Old England of giving names to their machines. I met a Johnny Bull the other day who said that he was going to name his machine 'The Hawk,' and when I asked him the reason for the poultry name, he said, 'Don't you know, old chap, it's out after the chickens.'

"The machines of today are as nearly foolproof as possible, yet you cannot expect them to run right if you are always 'tickling' the carbureter or if you tear it down and have enough wheels left over to build an Ingersoll watch. If you are dissatisfied with your 'hack,' take it to the nearest agent of that machine, tell him your troubles and see if the machine or yourself needs a new set of brains. Don't knock the machine and don't let the machine knock itself. Better good, slippery oil at a dollar a gallon than a new crankcase for $15 or $20. Always see that your tank or, rather, the tank of the motorcycle, is full of gasoline, as they never did run well on a mixture of air and rusty water. Be sure that the spark plug does not look like a charcoal filter and that the magneto wires do not have more than fifteen holes in them.

"If you intend to take a ride through the country districts, do not fail to take along a generous supply of matches, as it is a simple matter to bump a chicken and have a nice mud roast. Be sure to save the feathers, as mixed with glue they make an excellent filler for inner tubes.

"Great care should be used while going through cattle-raising districts, as you might hit a pig and put your 'bus' on the hog. If you are approached when nearing any small hamlet by an individual wearing a tin star on his breast, or some other place, you will know that he is the town *constabul*. The best thing is to introduce him to your Five Brothers, as by so doing, you may save an Honest Scrap, a chase by Bull Durham or a hanging by Gold Rope. You may even get a trip in a hired express wagon, such as some of the members took last August down near Cleveland.

"I am afraid that I will get a 'hot box' if I continue to 'burn up the road,' so I will 'plug up,' 'close my muffler' and leave the 'track open' to some one with more 'speed.'"

Attractive Decoration on New Indian Poster Just Out from the Wigwam

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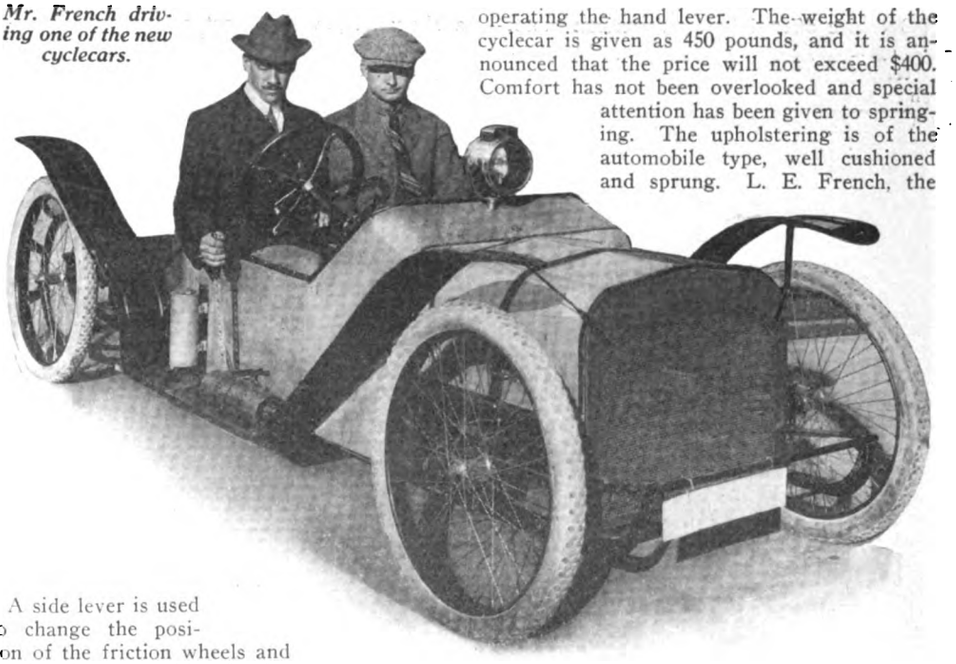
California Cyclecar an Attractive Newcomer

Company Just Organized in Los Angeles With Capital of $50,000 Will Build 10 Horsepower Machine With V-Belt Drive From Countershaft—Weight Is 450 Pounds and Price Will Not Exceed $400.

INCORPORATION papers have just been filed in Arizona by the California Cyclecar Company, of Los Angeles, Cal., the capitalization being $50,000. W. R. Norton, C. W. Hillyard, L. E. French, C. L. Cutter and W. M. Burke have been named as directors, and plans have been completed for a new factory building which will also embody an up-to-date salesroom. The first of the new cyclecar models was perfected some time ago and has given excellent service over California roads. In and about Los Angeles it has aroused much interest and the manufacturers are confident that there will be a wide demand for the machine.

The lines of the California cyclecar are low and an underslung frame is used, the clearance being nine inches and the wheelbase 102 inches. The motor is set across the frame, with a starting handle in front. A 12-inch cooling fan keeps the air circulating over the cylinders of the 10 horsepower engine, which has a displacement of 70 inches. From the motor the power is transmitted to the countershaft by a shaft and friction wheels, and the drive is then carried to the rear wheels by two 1¼-inch V belts. A convenient side lever is provided by means of which the rear axle can be thrown forward or backward. When moved forward the brake is applied and in the backward motion the belts are tightened, thus permitting of considerable flexibility.



Mr. French driving one of the new cyclecars.

A side lever is used to change the position of the friction wheels and another lever provides for increasing the pressure of the friction plates. A foot brake is fitted and a foot clutch makes it possible to disengage the plates without operating the hand lever. The weight of the cyclecar is given as 450 pounds, and it is announced that the price will not exceed $400. Comfort has not been overlooked and special attention has been given to springing. The upholstering is of the automobile type, well cushioned and sprung. L. E. French, the designer of the cyclecar, is a mechanical engineer who laid the foundation for his experiments by a course in Harvard University.

SAVING THE TIRES

Expert of United States Company Tells How Water Will Cause Trouble and Advises Prompt "Doctoring" of Tire Cuts

IF every man who owns a motorcycle could take a day off and go through a big, modern tire plant he would discover that while rubber itself is the most effective watershedder known, it is absolutely imperative that all moisture be eliminated in pneumatic tire construction. Furthermore, these owners would realize the great importance of looking after small cuts in the tire tread and closing them when they develop. When water works its way beneath the tread and breaker strip and into the carcass of a tire premature deterioration is certain to follow.

"In building up the carcass of a tire out of frictioned fabric, which means heavy cotton cloth impregnated with rubber, we are extremely careful to use only thoroughly dry material," says C. B. Whittelsey, superintendent of the United States Tire Company's Hartford factory. "After crude rubber has been carefully washed and rolled into sheets of crepe it is hung in drying rooms where a high temperature is maintained and where every trace of moisture is removed. The fabric, likewise, is run over heated rollers to make certain that it is perfectly dry before being subjected to the frictioning process.

"When a tire is completed it is free from moisture on the inside and it remains so as long as the tread is in condition to perform its full duties. However, small cuts, caused by sharp objects in the roadway, are very apt to appear, even in a new tire, and through these openings water eventually finds its way to the tire carcass. In time this produces separation of the individual plies of fabric of which the carcass is made up, and the tire rapidly goes to pieces. Breaks in the tread also admit sand and dirt, which cause fabric separation.

"When a motorist discovers one or more small cuts in the tread of a tire he should close them at once. There are several special preparations for this purpose which can be easily applied after the cut has been thoroughly washed out. The expense amounts to practically nothing and the saving is bound to be great."

TIRE COMPANY INCORPORATED

EAST LIVERPOOL, O.—A contract for the construction of a plant for the Morgan & Marshall Co-Operative Rubber & Tire Company has been awarded to Kerr Brothers, of this city. The building will be 90 x 107 feet. Dr. R. J. Marshall, Mayor of East Liverpool, is president of the corporation.

BANTAS HANDLE THE DAYTON

THE Dayton motorcycle is now being handled in Sacramento by the Banta Cyclery, F. W. Banta and his mother, Mrs. L. Banta, being the proprietors. The firm has been in existence for several years but has only recently entered the motorcycle field as agent for the Dayton line.

H. CAMERON, the Indian agent in Sacramento has sold two Indian sevens to the Fish and Game Commission for use by deputies on their rounds in the southern section of the state. Several other states are following suit.

ADVERTISING MEN CONVENE

BALTIMORE, MD.—The advertising managers of two of the big tire houses are here attending the national convention of the Association of Advertising Clubs of America, which opened last Sunday, and will last throughout the week. They are E. C. Tibbetts, of the B. F. Goodrich Company, Akron, Ohio, and George C. Hubbs, of the United States Tire Company, New York. Both are down on the program for speeches.

THE BRANTFORD TWO-WHEELER

IN REFERRING to the new Brantford autocycle in the issue of May 29 the impression was inadvertently given that the machine was essentially a three-wheeler, while, as a matter of fact, the third wheel in the outfit is used simply to support a chassis built along sidecar lines. The vehicle proper is a two-wheeler of new construction, with special attention given to springing. It is being produced by Brantford Autocycles, Ltd., Brantford, Canada.

CORTLAND RACE MEET

AN attractive program has been prepared by the Cortland (N. Y.) M. C. for its annual Fourth of July race meet, and more than $200 will be distributed in prizes. The club recently requested "Happy Days" Pitman to act as referee and the veteran official will be on duty for the holiday events. Mr. Pitman officiated at a number of up-State meets last season and so impressed the clubs with his determination to give everyone an even break that he is in demand for this year's programs. Entries are now being received.

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Attractive New Hawthorne Lighting Products

Bridgeport Company Has Perfected Ingenious Universal Bracket to Carry Both Lamp and Its Source of Supply and Will Also Market Complete Electric System—Big Factory Extension Planned.

NO device offered in the American motorcycle field of late is likely to arouse greater interest among students of illuminating problems than a universal bracket perfected by the Hawthorne Mfg. Co., of Bridgeport, Conn., and so designed as to permit of carrying both the lamp and its source of supply, whether generator, gas tank or storage battery. The extreme simplicity of the new bracket, combined with its remarkable adaptability, makes it one of the most interesting products of the House of Hawthorne, long noted for its ingenious contributions to the motorcycle lighting field.

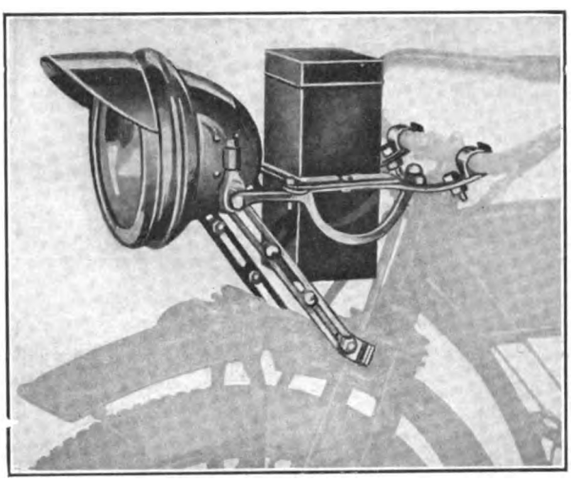
Probably the chief charm of the new Hawthorne product is that it does not confine the motorcyclist to any single form of lighting. It may be used for any of the three systems mentioned with equal facility, and without the necessity for tedious adjustments. The bracket is made up of two pressed steel members, formed with a semi-circular depression midway of their length, which is so gauged as to form a perfect cradle for a Prest-O-Lite tank. A pair of braces are pivoted to these members at their front ends and also clamped to the truss rods of the fork or to the fork sides, so that satisfactory rigidity is obtained without cumbersome fittings. The braces are slotted and keyed so that they permit of widely varying adjustments. A pair of smaller braces are pivoted to the rear ends of the main members and extended to clamps which are fastened on the handlebars.

The uprights, which carry the lamp itself, are held at the forward ends of the main members, and being pivoted they permit of tilting the lamp to any desired angle and thus using the beam to the best advantage under all conditions of travel. The pivot joint is of the tongue and groove variety, and is firmly locked by clamp bolts.

When the bracket is to be used with the gas tank it is accompanied by two retaining bands which complete the circle and hold the receptacle firmly when it is placed in the depressions above referred to. For use with a No. 5 Old Sol gas generator a plate is supplied, punched with a circle slightly greater in diameter than the generator and fitted on the under side with a simple and efficient locking device. The latter prevents the generator from working loose. This also bolts to the main members of the bracket. If a storage battery is to be carried, equally satisfactory arrangements are found. The improved battery box, which is offered by the Hawthorne company in connection with its new bracket, also fits into a punched plate between the main members. The bracket is easily adjustable in width so that no difficulty is encountered in accommodating battery-carrier, tank or generator, as the case may be. A special electric lamp is supplied with the battery outfit.

The latter comprises a six-volt Willard storage battery, mounted in a waterproof metal casing (the carrier above referred to), and an attractive torpedo lamp which carries a six-candlepower Tungsten bulb. Much attention has been given to perfecting the battery box, which is 3¼ inches by 4 inches and 9¼ inches in depth, and it is believed that it represents the last word in compactness and handiness. It is made in two sections, provided with flanges serving to join them together, and also to hold the box in place on the bracket plate. Two bolts with concealed nuts pass through the flanges and the plate. The box has a hinged cover which carries a concealed switch and a lock to ward off meddlers. The leads to the battery and the switch extend through a channel formed in the front of the box.

The 40-ampere battery will furnish light continuously for 20 hours, and the cost of re-charging is 25 cents. The box is finished in enamel to match the color of the motorcycle; battery and box weigh about nine pounds. The electric headlight



Hawthorne Electric Lighting Outfit

carries a short hood or "peak," which is designed to prevent light rays from being thrown upward so that they blind the rider, and is simple in general make-up. The cover is fitted with a special catch which is loosened by a quarter turn of the cover; to prevent its being easily taken off by meddlers a small set screw is provided.

An electric warning signal is also included in the Hawthorne electric system. It is of the electro-vibrator type and combines simplicity and efficiency to a remarkable degree. Very little current is consumed by the horn, although it is capable of producing a far-reaching sound. It is finished in nickel to match the lamp and is operated by a push button on the handlebar. In addition to carrying the lamp with its source of supply, and the warning signal, the Hawthorne bracket also provides an ideal mounting for the license plate. Provision is made for carrying the plate on the same auxiliary bracket that holds the electric horn. Thus the plate is out of the way and still discernible above the battery box.

Several notable improvements have been made in the Old Sol battery tail-lamp of late, one taking the form of a snap pin lock in connection with the red jewel. When this is once placed in position it will be impossible to jar the jewel from its mounting and lose it. A similar arrangement has been applied to the mica window through which the license tag is illuminated. The switch, which was formerly operated by turning a small key on the end of the battery case, now is operated by revolving the end of the case. In this way the danger of breaking the switch is reduced to the minimum. The switch is provided with an extra point so that the tail-light can be used with current from the storage battery, if the headlight is in operation, or from a small self-contained dry battery when it is desired to use the tail-light independent of the headlight.

The Hawthorne company is now planning for the erection of a seven-story building and it is understood that negotiations for the necessary ground are well advanced. This expansion has been necessitated by the remarkable growth of the firm's business of late. It is stated that its sales have doubled within the last year and that the proposed new extension, embracing about 100,000 additional square feet of floor space, will be needed to keep abreast of the demands for Old Sol products.

The Hawthorne company has fully covered its electric lighting system by patents, both on design and mechanical features, in the United States and foreign countries and announces that it will vigorously prosecute infringers. The company states that it will be ready to supply the electric outfit in quantities about August 1. One of the experienced motorcyclists who have been deeply and favorably impressed by the new system is John Constant, the amateur champion. Constant rode his machine to Bridgeport a few days ago and left it at the Hawthorne factory with instructions to equip it with one of the new electric systems.

JERSEYITES GO TO LAKE GEORGE

FOUR members of the Arrow Motorcycle Club, of Hudson County, N. J., who participated in the Decoration Day run to Newburgh, N. Y., continued on to Albany and Lake George. Returning they stopped at Schenectady, Troy, Rensselaer, Albany, Hudson, Poughkeepsie and Fishkill Landing. After crossing the Hudson from this point to Newburgh they went to Woodbury Falls, where they stopped for the night. In the morning they continued their trip home.

TO INCREASE OUTPUT

TWO large wings are being added to the plant of the Gordon Rubber Co., of Canton, O The additions will cost $25,000 and will make possible a considerably larger output.

AN ordinance has been passed in Alliance, O., requiring the licensing of motorcycles.

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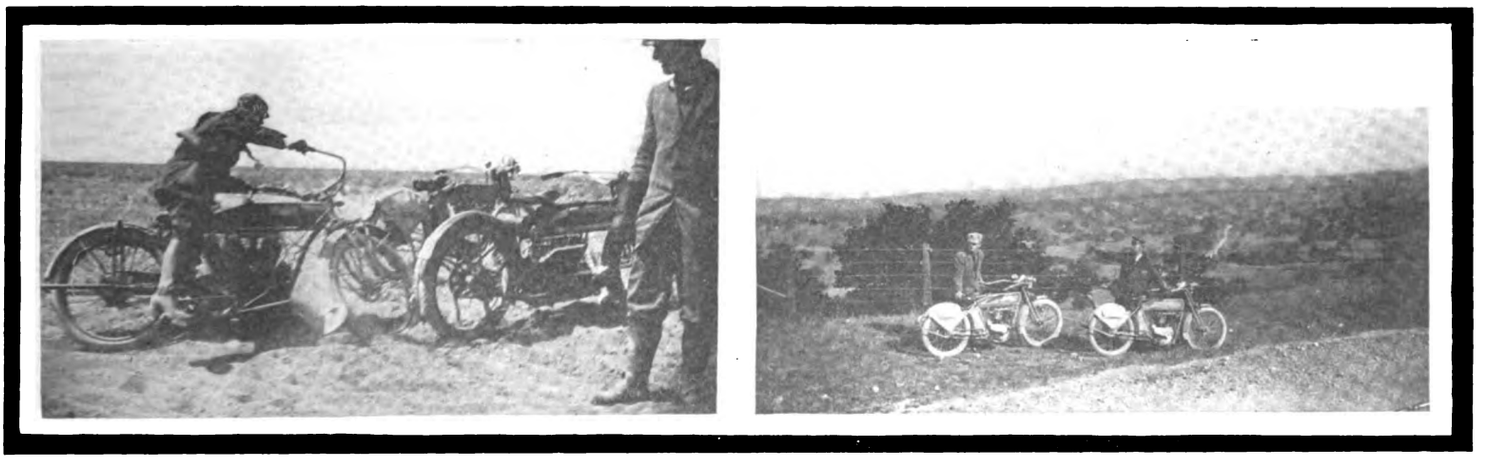
Thirteen Californians Survive Gruelling Trip



Striking Pictures of Los Angeles M. C. Riders Pathfinding for the May 30 Endurance Trial—Note Sand in Photo at the Left.

LOS ANGELES, CAL.—Twenty-three riders started on the three-day, 530-mile endurance run of the Los Angeles M. C. on May 30 and 13 of them managed to keep their scores clean despite "57 varieties" of trouble and more hard riding than most eastern clubs encounter in a whole season. There was comparatively little actual mechanical trouble, but all kinds of breaks resulted from the numerous spills and the heavy going. Bissett, mounting a Harley-Davidson twin, broke his frame 50 miles from Bakersfield, but propped it up and wired it together so that it carried him home for a perfect score. There were other performances almost as daring, and all in all the trial was the most spectacular ever conducted by the southern California club.

Following is the list of starters: R. D. Bissett, 8 h. Harley-Davidson; C. R. Wride, 7 h. Indian two-speed; Geo. P. Riddy, 7 h. Flying Merkel; L. T. Clarke, 9 h. Minneapolis two-speed; C. H. Bruck, 7 h. Excelsior; J. J. Leonett, 7 h. Indian, two-speed; Erwin Knappe, Indian; W. S. Bryson, 7 h. Flying Merkel; F. L. Johnson, 8 h. Harley-Davidson; H. Bosschard, 7 h. Indian two-speed; C. Smallcomb, 7 h. Yale; W. D. Price, Yale; Albert Leroy, 7 h. Indian two-speed with sidecar; J. H. Shafer, 7 h. Thor; A. J. Menegay, 7 h. Indian two-speed; W. C. Morrell, 4 h. Indian; W. M. Kuhn, 7 h. Indian two-speed; Ray Little, 4 h. Harley-Davidson; T. Johannsen, 7 h. Indian two-speed; E. S. Burford, 9 h. Monarch; H. E. Sexton, 7 h. Flying Merkel; R. L. Stanley, 9 h. Minneapolis; J. W. Vance, 7 h. Indian.

The thirteen perfect scores follow: R. D. Bissett, Harley-Davidson twin; F. L. Johnson, Harley-Davidson twin; L. T. Clarke, Minneapolis two-speed twin; C. H. Bruck, Excelsior twin; J. J. Leonett, Indian two-speed twin; Erwin Knappe, Indian; H. Bosschard, Indian two-speed twin; W. M. Kuhn, Indian two-speed twin; T. Johannsen, Indian two-speed twin; W. S. Bryson, Flying Merkel twin; H. E. Sexton, Flying Merkel twin; C. Smallcomb, Yale twin; J. H. Shafer, Thor twin.

Using Low Gear Does Not Increase the Power

YOU cannot get more power out of a motor than the motor will originally give out, no matter what the number of gear reductions or "speeds." Your partner's motor will probably give 6¼ horsepower for a short time when pushed to do so, but should be considered only a 5 horsepower single in the present case. The high speed gear ratio being 4¼ to 1, and the low gear ratio 8½ to 1, makes no difference in the horsepower of the motor whatsoever; only 5 horsepower can be obtained when either speed is used.

Your friend's statement is due to a fallacy current among those who are unfamiliar with a variable gear device, and possibly with mechanics. He thinks that because he has doubled his reduction that his power is doubled, but this is not the case. By reducing the gear ratio from 4¼ to 8½ to 1, he has *lost* power by driving through several gear wheels; he has lost time in transmitting the power of the motor to the rear wheel, and he has lost speed also. To offset these losses he has gained the ability to keep the motor running at such a speed that it will develop its full power and drive the machine up the hill or through the heavy sand, etc., which was not the case when the high gear was used. This is perfectly satisfactory under the circumstances, and the losses are overbalanced by the gain.

These conditions follow the simple law of mechanics that "A gain in power is obtained at the expense of a loss in time (or speed)." As it is only possible to get 5 horsepower out of the motor, let us assume, we keep up the power to its fullest by driving through a lower gear or "speed" and are enabled to take the hill, but at a reduced speed of the machine. To get this reduced gear ratio we must use more gear wheels than on the high gear ratio and these cause a slight loss of power when running. It must be remembered that an internal combustion motor develops its power according to the number of revolutions per minute that it makes, and that the faster it runs the greater the power it develops.

The variable gear or "two-speed" gear owes its existence to this law of mechanics. When the load is increased, as when driving up a hill, with the high gear the motor will slow down and not develop enough power to drive the machine. So the designers fitted the variable gear device with a lower gear permitting the motor to run fast and the machine to run slow and thus lose in time or speed to keep the power normal. But they did not increase the power of the motor at all, nor could they do so.

If there were no losses by using extra gear wheels, there might be something in the statement of your friend. Using the 8½ to 1 ratio would be *equivalent* to using a 10 horsepower motor with the 4¼ to 1 ratio, but at much less speed, for a 10 horse motor would develop much more speed at any time than a 5 single. It is difficult to see where any advantage would be gained by the statement that 11 horsepower was given off when the low gear was used, as it could not be proved in a test and anyone familiar with mechanics would smile at the idea.

MY riding partner has a five horsepower motor fitted with a two-speed gear which he says gives 11 horsepower when the low speed is in action. I am writing to have you explain this to me, as I cannot see how you can get more power out of a motor with the low speed than with the high speed. FRANK C. CHAMBERS.

AN OTHERWISE excellent race meet was marred by fatal injuries to Samuel Hickman, a spectator, on Decoration Day at the Luna Motordrome, Cleveland. G. Grimes, one of four starters, fell as the race was starting and while still riding at the bottom of the track. Hickman jumped over the rope and made a dash for the track to shut off Grimes' engine, when Burdon, another rider going around the bottom of the track, struck Hickman in the back. Hickman died half an hour later in a hospital.

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Seventy-Nine Milwaukeeans Finish Three-Day Run

First Reliability Trip of the Milwaukee M. C. Brought Out 121 Riders, and Three Women Enthusiasts Were Among the Finishers—Only One Accident Was Recorded Although There Was Some Heavy Going on Second Day.

Number 1—Riders at Beaver Dam, with Miss Lillian Hauerwas in the foreground. Number 2—The stop at Sun Prairie. Number 3—Checking arrivals at Columbus, Wis. Number 4—Motorcyclists acting as road makers on last day of the tour.

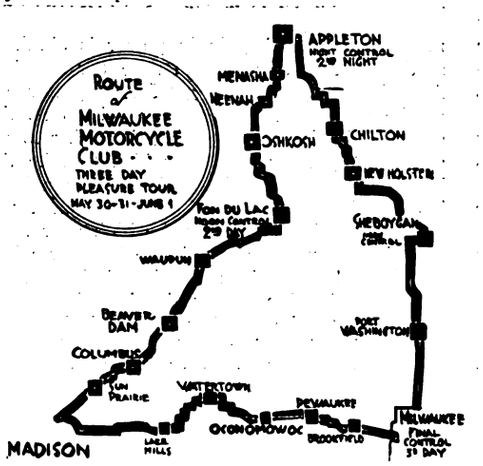
MILWAUKEE, WIS.—With conditions nearly ideal, the first annual reliability tour of the Milwaukee Motorcycle Club, under the auspices of the Milwaukee *Journal*, was held May 30 to June 1, inclusive. There were 121 participants and of this number 79 received medals for coming through with unblemished records. In the number of finishers the Harley-Davidson led all competitors, landing 28 winners, but the most consistent showing was made by the Indian. Of 17 entries, 17 finished with perfect scores, giving the Wigwam squad a percentage of 1,000. Additional finishers were the following: Excelsiors, 9; Reading-Standards, 5; Flying Merkels, 5; Yales, 4; Dayton, 1; Henderson, 1; Thor, 1. Several others who finished with clean scores did not register their machines, having entered at the last minute.

The run was an acknowledged success. It promoted a better social understanding among motorcyclists of the state and paved the way for good business for Wisconsin dealers. All along the route there were demonstrations and receptions and entertainments. Enthusiasm was manifested everywhere and the run truly lived up to the policy of good fellowship.

In all, 322 miles were covered in three days. The roads were in fair condition with the exception of bad stretches encountered on the second day. There were many minor troubles, such as bent and broken pedals, punctures, etc., but a supply car followed in the wake of the tourists and its crew did valiant work.

The start was made on the morning of May 30, from the St. Charles hotel, Milwaukee. At 7:30 the word was given and the whirring hum of the engines accompanied the exit of the tourists from the metropolis of Wisconsin. This first day's run was from Milwaukee to Brookfield, 13 miles; to Pewaukee, 19.7; to Oconomowoc, 33; to Golden Lake, 40; to Sullivan, 42; to Rome, 44.5; to Jefferson, 52.5; to Lake Mills, 59.5; to Oak Park, 66.1; to Vilas, 77.7; to Madison, 87 miles.

Three women riders covered the tour, making a strong showing the very first day by holding their own where others fell behind. Miss Margaret Lawler and Miss Lillian Hauerwas rode in Division C, while Mrs. James Heaps rode with her husband in Division H. None of them experienced any trouble on the tour.



The trip to Madison was uneventful except for one bad accident. Emil Held broke his leg when his machine toppled over on him on a bad piece of road near Nashotah. Tourmaster H. E. Jameson saw that he was given proper medical attention and accompanied the injured lad to his Milwaukee home. Jameson boarded the train for Nashotah later in the day, mounted his motorcycle and joined the tourists at Madison.

At Madison, the state capital, the tourists were guests of the management of the Madison Aero Club at an aviation exhibition and motorcycle meet. C. A. Carpenter, captain of one of the divisions, acted as referee. The first race for professionals was at five miles, in the 30:50 class, and was won by Aldrich on an Indian. Haley, Indian, was second and Stephens, Excelsior, third; time, 7 minutes.

The second race, at five miles for professionals in the 30:50 class, was won by Aldrich. Ferch, Indian, was second, and Haley, Indian, third. Ferch was one of the tourists and was given an ovation when he finished. Time, 5:40.

In the third race, at ten miles for professionals, Haley, Indian, took first. Stephens, Jefferson, was second, and Ferch, this time riding a Jefferson, finished third. Time, 10:54.

Nearly all the riders who started Friday were on deck for the start Saturday morning, May 31. Those who were obliged to return

(*Concluded on page 60.*)

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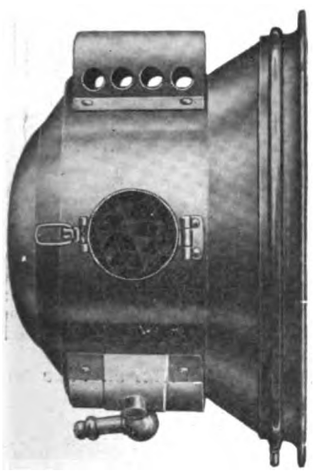
"Dad"

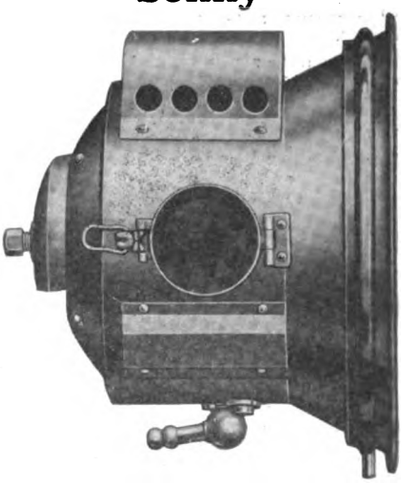


No. 195 Nickel....Each $5.00

What Do You Want to Know About a Lamp?

We are ready and willing to put our eighteen years of exclusive motor lamp building experience at your entire disposal. If there is an illumination problem puzzling you, our corps of lamp experts will set you right. They are competent to give you really valuable advice. Because every minute of their waking hours is devoted to the making of lamps, as nearly perfect as experience, a keen study of motor lamp requirements and high grade materials can possibly achieve.

"Sonny"



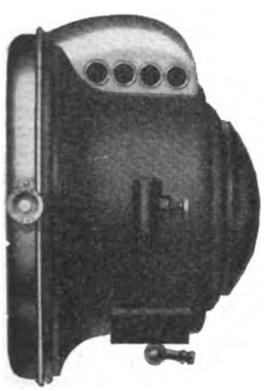
No. 194 Nickel, Flat Bracket....$4.00
No. 194P Nickel, Fork Bracket.. 4.00

SOLAR LAMPS have not only a national, but an international distribution. Their marvellously dependable service, their low cost, their granite-like durability; all these features account for the world-wide demand for SOLARS. It has been necessary to establish a special export department to handle the rush of European orders.

Solars

"The Lamps with a Pedigree"

For the Dealer, the SOLAR line presents opportunities for quick, clean profits. The tremendous prestige of the SOLAR name creates interest. One glance at a SOLAR means a sale. One sale means another satisfied SOLAR "booster." The net cost of SOLAR LAMPS to the dealer is smaller—hence enabling him to turn over his money more quickly on a smaller initial investment.

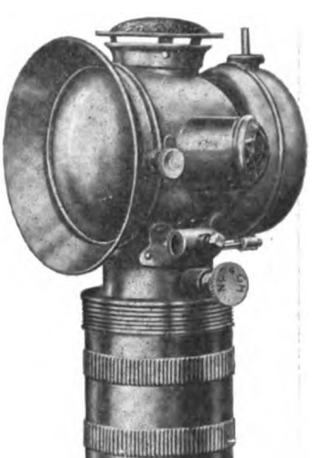


"Grandad" Headlight
$7.00

Be you dealer or rider, you will learn the meaning of a truly efficient line of motorcycle lamps by getting our SOLAR book. It gives complete descriptions of our complete motorcycle lamp line. Be sure and get it today.

The Badger Brass Manufacturing Co.

Kenosha, Wis. **New York City**



SOLAR GENERATOR HEADLIGHT. No. 4GH. Nickel, with Bracket....$7.50

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home to their duties on Saturday went back to Milwaukee by train, shipping their machines.

The worst roads on the trip were encountered on May 31 from Madison to Appleton. Plans were changed on this date and a rule was put into effect that any rider passing the chiefs of his division would be disqualified. On the first day the run developed into a race, with little or no line on divisions, and the result was that the tour was somewhat disorganized by the time Madison was reached. This was remedied, however, when Tourmaster Lacy Crolius issued an order which made it compulsory for riders to keep behind captains and lieutenants. In this way a semblance of order was maintained. The riders, too, were pleased with this plan.

The second day's run was from Madison to Sun Prairie, 11.7 miles; to Columbus, 27.2; to Beaver Dam, 39.5; to Waupon, 53.4; to Fond du Lac, 72. This was the noon control and the riders were a tired lot when they arrived there. After a hearty meal, the tourists set out for Appleton and maintained the itinerary as follows: Fond du Lac to Oshkosh, 93.8; to Neenah, 108.6; to Menasha, 109.8; to Appleton, total mileage for day, 116 miles.

Besides entertaining the tourists with a band, the Appleton Motorcycle Club did itself proud in other ways. Garage accommodations were furnished and the visitors were royally entertained in the clubrooms and escorted out of town Sunday by a squad of Appleton riders and mounted patrolmen. Appleton was certainly one of the bright spots of the itinerary.

Of the eighty-three riders who left Appleton June 1 for the return home, seventy-nine checked in at Milwaukee. The Rambler press car acted as pacemaker, and when the city limits were reached the seventy-nine riders were riding behind it. In this manner, well bunched and with horns sounding, the cyclists rode to the checking stations while hundreds of Milwaukeeans cheered them.

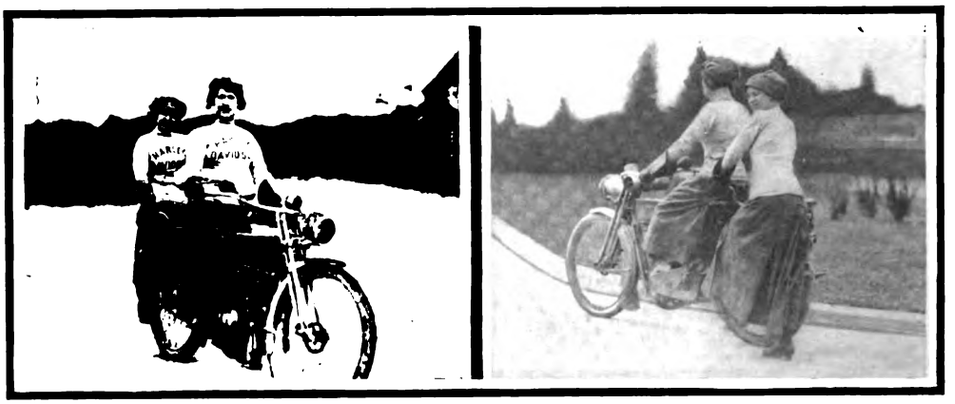
The run on the final day was as follows: Appleton to Sherwood, 11.5 miles; to St. John, 14.4; to Hilbert, 18.4; to Chilton, 26.1; to New Holstein, 33.2; to Kiel, 37.4; to Millhome, 41.2; to Ada, 44.4; to Howard's Grove, 49.8; to Millersville, 50.9; to Sheboygan, 61; to Port Washington, 90; to Milwaukee, 119 miles.

At Sherwood, the first adventure was encountered. Here the tourists got experience in practical road building. A culvert in course of construction necessitated a detour, involving crossing over a creek on a temporary bridge. The Rambler press car, in the lead, acted as pilot. The bridge gave way and the rear wheels went down. The boys found a wheelbarrow and some shovels left by the workmen, and a sand and gravel pile was promptly transferred to the temporary road. Then with the tourists heaving at her sides, pushing from behind and pulling in front, the car came out.

Roads were fair from Sherwood to Chilton, but from New Holstein to Howard's Grove there were bad places. However, all got through. From Howard's Grove into Sheboygan, the tourists were piloted by a squad of Sheboygan riders, who came out to meet them. The noon control was located here.

After dinner, all set sail for home. The roads between Sheboygan and Port Washington were very rough, but the rest of the way was almost a joy ride until a closed road was encountered near the Milwaukee city limits. A detour over a mean piece of gravel tested the riding abilities of many, but all got through. It was then a procession to the checking-out station in Milwaukee.

Regarding divisions, there were several banner ones. Captain E. J. Mueller started with nine men and every one checked in at the finish. Capt. C. A. Carpenter, of Division B, also started with nine men and brought them all in. Both the repair car, arranged for by A. G. Mueller, and the press car, driven by Frankie Roesler, were of great assistance to the tourists at times. The Milwaukee *Journal* will distribute fobs to the winners.



Mrs. James Heaps and Miss Leslie—Mrs. Heaps Finished the Milwaukee Run on Time

Service Staff of Consolidated Gas, Electric Light & Power Co., of Baltimore, Md.

ERECTING PITTSBURGH TRACK

PLANS for a five-lap board track in Pittsburgh have been completed. The track will be banked at 60 degrees. General admission at 25 cents will be to the infield, which will accommodate 15,000. In addition to this there will be 4,000 seats at 50 cents, and 1,500 at 75 cents. The bowl will be operated in connection with the American League of Professional Motorcycle Racing Clubs, and the opening meet will be held on June 25 if present plans do not miscarry.

A COMBINATION MEET

AUTOMOBILE and motorcycle races and a number of aviation events made up the program for the meet held at Baldwin Park, Quincy, Ill., on June 1. The program was arranged by the Quincy Motorcycle Club and more than 3,000 people witnessed the events. Henry Maching, riding an Indian, took first place in the 3-mile race for twin machines, while Oscar Kathmann, Excelsior, captured the 2-mile single event. Later, Kathmann, mounting a Merkel single, won handily from a Ford automobile.

HEINZ WINS ROAD RACE

EAST ST. LOUIS, ILL.—The East St. Louis M. C. recently opened the local racing season with a road event to New Athens, a distance of 60 miles. Despite the fact that the roads were in bad condition the riders maintained a fast pace all the way. C. E. Heinz, on a Yale twin, took first place, with T. Calahan, riding a Harley-Davidson twin, second, and Charles Hendricks, on an Indian, third.

TRIBUTE TO MOTORCYCLES

IN A recent number of the *Gas News*, a booklet issued by the Consolidated Gas, Electric Light and Power Co., of Baltimore, Md., appeared the picture which is reproduced herewith showing a line-up of the company's service staff on motorcycles. The machines have given excellent returns and the lighting officials are deeply impressed with their adaptability to general commercial service. The picture is forwarded by Howard A. French & Co., Indian agents in Baltimore, from whom the machines were purchased.

MOTOR SHOW AT LONG BRANCH

PLANS have been completed for an automobile and accessory show to be held in the Ocean Park Casino, Long Branch, N. J., June 30 to July 7, and it is the understanding that space can also be obtained for motorcycles and supplies should dealers in the vicinity care to be represented in the exhibit.

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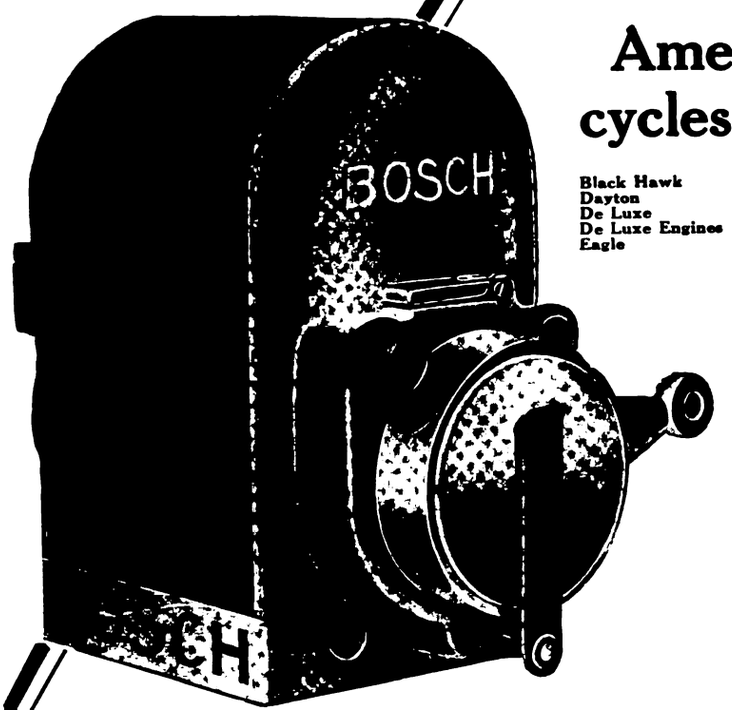


America's Foremost Motorcycles use the Bosch Magneto

Black Hawk	Excelsior	Jefferson	Pope
Dayton	Harley-Davidson	M. M.	Reading-Standard
De Luxe	Henderson	Merkel	Thor
De Luxe Engines	Indian	Minneapolis	Triumph
Eagle	Iver Johnson	Michaelson	Yale

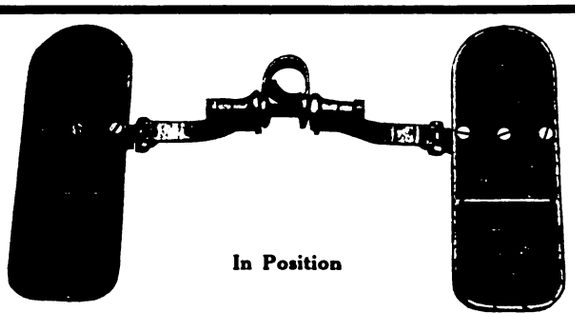
This list of manufacturers comprises America's most prominent motorcycle manufacturers. No other ignition system in the world can show a list even 1/8th as representative.

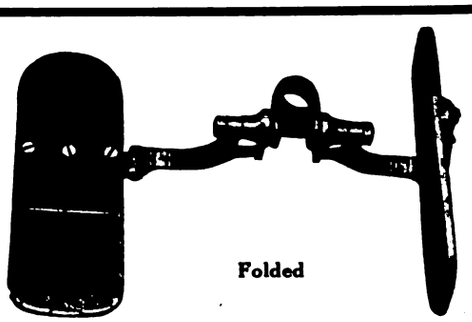
These makers have selected Bosch and used Bosch, some of them for over seven years, because they knew Bosch was unquestionably superior in accuracy, reliability and efficiency. They are positive that Bosch is as dependable as their own product.

Be guided by the judgment of America's foremost motorcycle designers. Select a Bosch-Equipt motorcycle and enjoy that priceless confidence and satisfaction that make motorcycling worth while. *Write for special motorcycle magneto book.*

BOSCH MAGNETO COMPANY 206 West 46th Street, New York

CHICAGO :: DETROIT DISTRIBUTORS IN ALL IMPORTANT CENTERS SAN FRANCISCO :: TORONTO


In Position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Every Machine Not Equipped With Redmond Foot Rests Means a $5.00 Sale For Live Dealers

Every rider wants foot rests on his machine. The desire is so strong that all you need to do is to show a man a set of Redmond Foot Rests to make a sale. Redmond Foot Rests are easily attached without the aid of tools. They fit all machines. For class and comfort no device is so desirable as

Redmond Foot Rests

These rests are made of the best grade aluminum. Thus they are light and strong. They have corrugated surfaces to hold the feet. The arm is of crucible steel and the clamp so arranged that rests can be made secure at any angle. Redmond Foot Rests retail for the low price of $5.00. Write us today for dealers' proposition; it's a winner. Write quick, so as not to miss any sales. Riders, see Redmond Foot Rests at your dealer's or write for circular.

THE HARRY SVENSGAARD SALES CORPORATION, 471-473 **Woodward Ave.,** *Dept. R,* **Detroit, Mich.**

"Everything for the Motorcycle"

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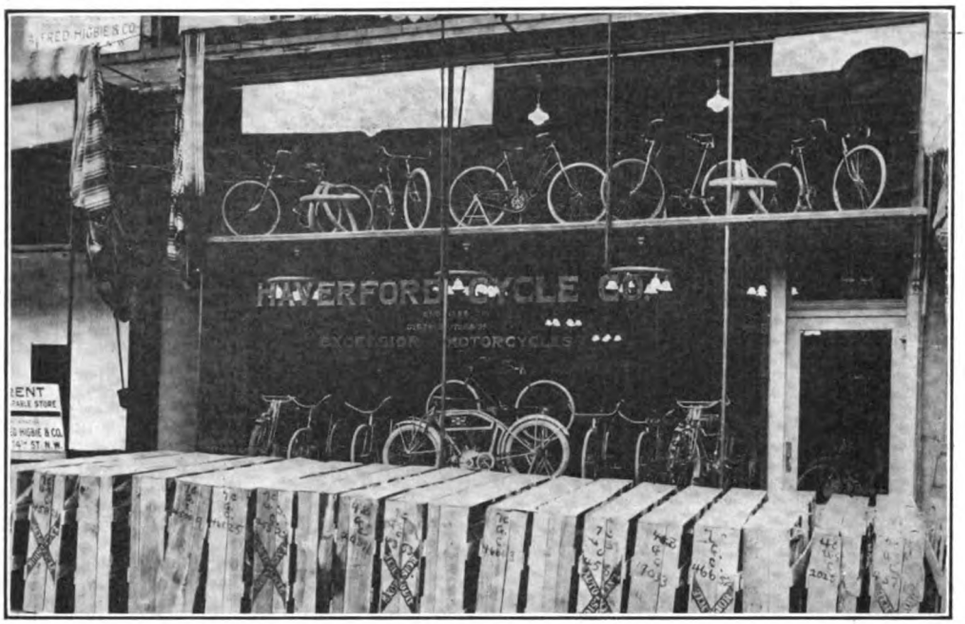


New Headquarters of the Haverford Cycle Co. in Washington, D. C.

HARRIS SUITS SUCCESSFUL

TWO suits recently instituted by the A. W. Harris Oil Company, of Providence, R. I., for infringement of its trade mark and improper use of the name "Harris" in connection with other lubricating products have resulted in perpetual injunctions restraining the offending parties. One of the suits was brought before the United States Court for Indiana against James C. Harris, who has been operating under the name of the "Harris Oil Company." The court's decision forbids him to use his own name in connection with the oil business, except with certain definite restrictions.

The other suit was brought against the Parker Refining Company, in the United States Court for Ohio, and resulted in a perpetual injunction directing that company not to advertise or sell "Harris Auto Oil," or to use the name "Harris" in relation to oils.

The A. W. Harris Company stated in the suits that it has used the name "Harris" in connection with the oil business since 1885 and that the name has acquired a reputation both here and abroad as denoting the products of the Providence company. The court entered a final decree that the letters of registration of the name "Harris" were good and valid at law and the injunctions followed.

NEW PRESIDENT CHOSEN

HENRY C. M. THOMSON, of New York, has been chosen by the directors of the American Hardware Corporation to succeed Col. C. M. Jarvis, who resigned from the presidency of the corporation recently because of ill health. Mr. Thomson is treasurer and financial manager for Hoggson Bros., of New York City. Resolutions were drawn up expressive of the confidence and esteem in which Col. Jarvis is held by the directorate.

DIRT TRACK SERIES

INCLUDED in the summer schedule of the Fort Wayne (Ind.) M. C. is a series of seven dirt-track race meets. The first of these meets was held on May 18. The series includes meets on June 22, July 13, August 10 and 31, September 16 (the opening day of the Fort Wayne Fair), and October 5.

ANOTHER ENTHUSIAST

A CLIPPING from a Milwaukee newspaper brings the news that Walter Davidson, of the Harley-Davidson Motor Company, has become the proud father of a baby boy. The important fact that the youngster weighs seven pounds was overlooked by the newspaper, however, and this information had to be obtained in a special bulletin from the Harley-Davidson headquarters.

A CORRECTION

IN THE issue of May 15 reference was incorrectly made to the "Star Electric Company" as manufacturer of the Samson electric motorcycle horn. It was the intention to refer to the American Electric Company, State and Sixty-fourth streets, Chicago. The latter firm produces the popular Samson horn in addition to a large assortment of other high-class specialties.

TWO of the latest club affiliations reported by Secretary Gibson are the Conneaut M. C., of Conneaut, O., and the Nashville M. C., of Nashville, Tenn.

SHAW ON GROSSMAN STAFF

GEORGE E. SHAW, well known in engineering circles, has joined the technical staff of the Emil Grossman Company, of New York and Detroit, as mechanical engineer. Mr. Shaw will circulate among the automobile, motor truck and motor manufacturers and will also participate in the mid-summer meeting of the Society of Automobile Engineers as technical representative of the Grossman Company.

MAKING MOTORCYCLE LAMP

COLUMBUS, OHIO.—The Pathfinder Lamp Company, successor to the firm of Bennet & Moore, with headquarters at 149 North Fourth street, is now making a specialty of motorcycle lamps and reports a lively interest in their new models.

E. & C. EXPANSION

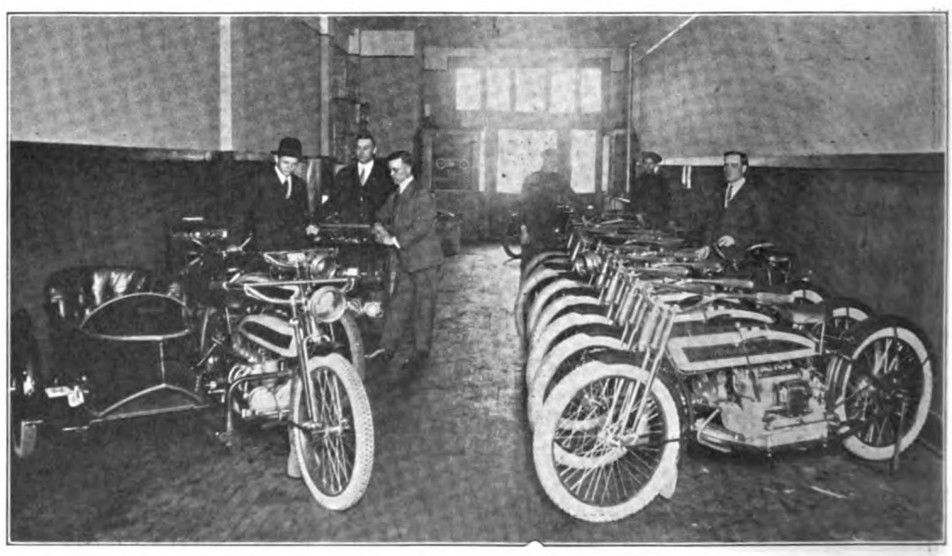
FROM the busy headquarters of Ernest & Craddock, Fifty-second and Filbert streets, Philadelphia, Pa., comes the announcement that the firm has increased its capital and is now prepared to operate on a broader scale than in the past. An unusually brisk demand is being felt for the E & C spring tandem and the firm's ingenious chain idler, and it is understood that extensions will be made in the near future to permit of accelerating the production of these products.

TANDEM MANUFACTURERS UNITE

J. FRANK SMEDLEY, manufacturer of motorcycle tandem attachments, of Los Angeles, Cal., and the Motorcycle Attachment Company, of Pasadena, Cal., have consolidated. The company will continue operations under the name of the Motorcycle Attachment Company, with headquarters at 54 West Union street, Pasadena. The directors of the company are Edward Loudenclos and K. H. Miller, of Pasadena, and J. Frank Smedley.

LAST week the Motorcycle Exchange of Pittsburgh, Pa., received seven new 7 h. ported Indian racing machines for the new Pittsburgh Motordrome. The Motorcycle Exchange has received this week the fourth carload of 1913 Indians.

MEMBERS of the Chester M. C., of Chester, Pa., recently participated in a Sunday run to Atlantic City, N. J.



Busy Salesroom of the Henderson Motorcycle Sales Co. in Chicago

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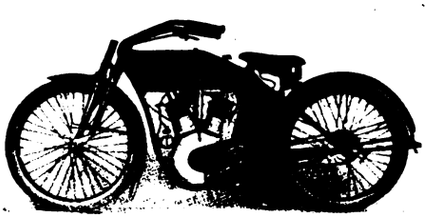
Worth-While Performances That Count for Something

Road runs, endurance trials, hill-climbing tests, these are the points in which the EMBLEM tries to attain honors, because we know that these honors are not empty ones. To circle a track at tremendous speed with a specially built racing model is no indication of a machine's ability to surmount every road obstacle, as has been done by the

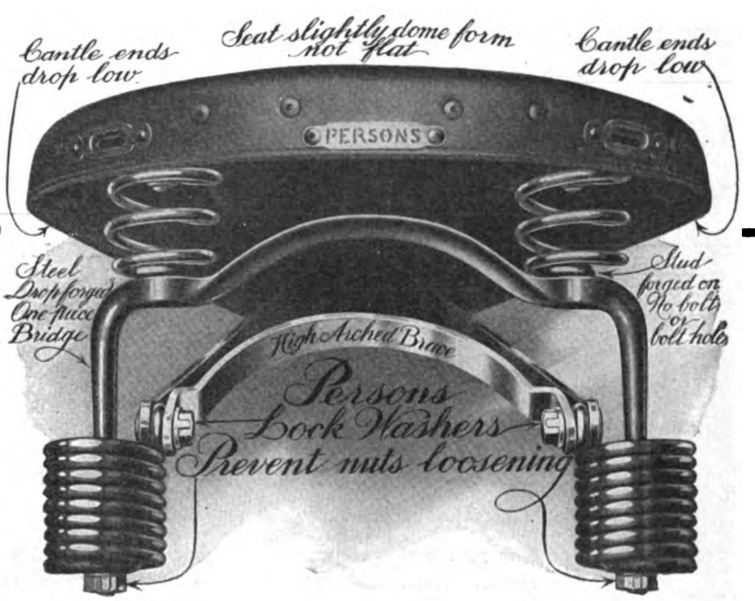
EMBLEM

time and again. Its famous road runs during the shows last winter, its innumerable other triumphs, including Gale's recent epoch-making 600-mile ride between Angola, N. Y., and Boston, Mass., in 19 hours—its hundred and one other demonstrations of its power, speed, endurance, economy and all-around dependability—these are records that will go down into the annals of motorcycledom as representative of EMBLEM perfection—and they count for something!



Get Our Catalog, It Tells the Rest

Emblem Mfg Co., Angola, Erie Co., N.Y.



Sturdy Simplicity

Mechanical Excellence

The Difference!

PERSONS one-piece high-arch bridge insures low Saddle position without usual "bumping."
PERSONS MOTOR SEATS are so constructed as to prevent tipping. It is built with the only security clamp ever invented. This holds the Saddle at two points and absolutely prevents tipping. Seven high carbon steel drop forgings are used in these clamps.
The seat with a **PERSONALITY**.

Send for booklet "Facts and History."
IT'S ALIVE!

The Persons Manufacturing Co., Worcester, Mass.

The OLDEST MAKERS of NEWEST MOTOR-SEATS in AMERICA.

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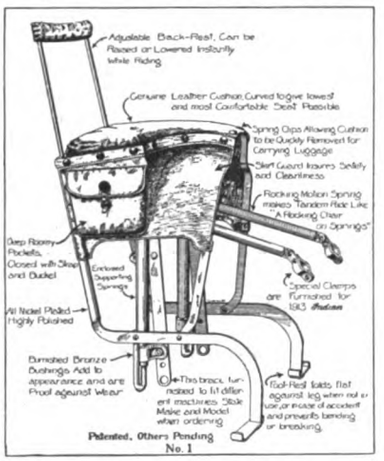
OUR CUSTOMERS

write better ads. for our tandems than we can. These are a few of the many unsolicited testimonials that we receive every day from satisfied dealers and riders. Why don't you

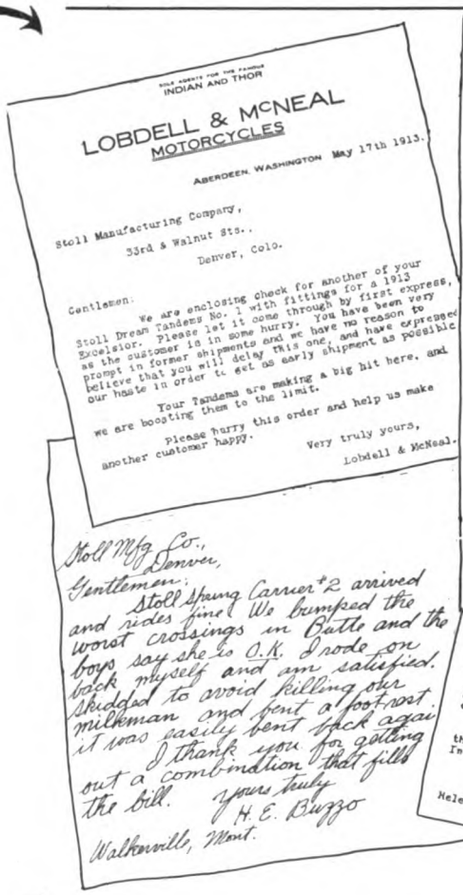
GET IN LINE WITH THE LIVE ONES

so that you, too, can say that you have the easiest riding, the classiest looking and best tandem made? We are ready to make immediate delivery. Write for our catalogue. Good dealers' proposition.



STOLL MFG. CO.

33rd and Walnut Denver, Colo.



SOLE AGENTS FOR THE FAMOUS INDIAN AND THOR

LOBDELL & McNEAL
MOTORCYCLES

ABERDEEN, WASHINGTON May 17th 1913.

Stoll Manufacturing Company,
33rd & Walnut Sts.,
Denver, Colo.

Gentlemen:

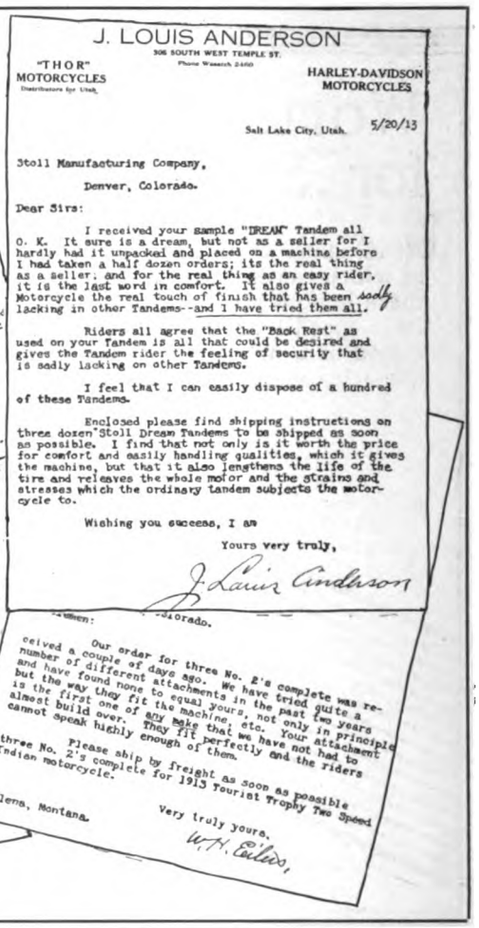
We are enclosing check for another of your Stoll Dream Tandems No. 1 with fittings for a 1913 Excelsior. Please let it come through by first express, as the customer is in some hurry. You have been very prompt in former shipments and we have no reason to believe that you will delay this one, and have expressed our haste in order to get as early shipment as possible.

Your Tandems are making a big hit here, and we are boosting them to the limit.

Please hurry this order and help us make another customer happy.

Very truly yours,
Lobdell & McNeal.

Stoll Mfg Co.,
Denver,
Gentlemen:
Stoll Spring Carrier #2 arrived and rides fine. We bumped the worst crossings in Butte and the boys say she is O.K. I rode on back myself and am satisfied. Skidded to avoid killing our milkman and bent a foot rest. It was easily bent back again.
I thank you for getting out a combination that fills the bill.
Yours truly
H. E. Buzzo
Walkerville, Mont.



J. LOUIS ANDERSON
306 SOUTH WEST TEMPLE ST.
Phone Wasatch 2460

"THOR" MOTORCYCLES
Distributors for Utah

HARLEY-DAVIDSON MOTORCYCLES

Salt Lake City, Utah. 5/20/13

Stoll Manufacturing Company,
Denver, Colorado.

Dear Sirs:

I received your sample "DREAM" Tandem all O. K. It sure is a dream, but not as a seller for I hardly had it unpacked and placed on a machine before I had taken a half dozen orders; its the real thing as a seller; and for the real thing as an easy rider, it is the last word in comfort. It also gives a Motorcycle the real touch of finish that has been sadly lacking in other Tandems--and I have tried them all.

Riders all agree that the "Back Rest" as used on your Tandem is all that could be desired and gives the Tandem rider the feeling of security that is sadly lacking on other Tandems.

I feel that I can easily dispose of a hundred of these Tandems.

Enclosed please find shipping instructions on three dozen Stoll Dream Tandems to be shipped as soon as possible. I find that not only is it worth the price for comfort and easily handling qualities, which it gives the machine, but that it also lengthens the life of the tire and releaves the whole motor and the strains and stresses which the ordinary tandem subjects the motorcycle to.

Wishing you success, I am

Yours very truly,
J. Louis Anderson

...men: ...lorado.

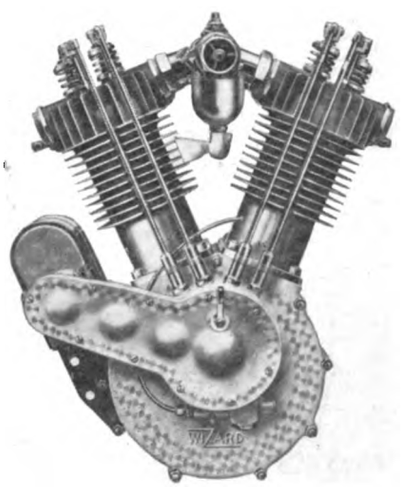
Our order for three No. 2's complete was received a couple of days ago. We have tried quite a number of different attachments in the past two years and have found none to equal yours, not only in principle but the way they fit the machine, etc. Your attachment is the first one of any make that we have not had to almost build over. They fit perfectly and the riders cannot speak highly enough of them.

Please ship by freight as soon as possible three No. 2's complete for 1913 Tourist Trophy Two Speed Indian motorcycle.

Helena, Montana.

Very truly yours,
W. H. Eilers,

WIZARD MOTOR CO. INDIANAPOLIS



WIZARD MOTORCYCLE MOTOR
10 H. P.—77 pounds.

WIZARD MOTORS

WITH

Overhead Valves—Double Ignition—Force Feed Oiling—Interchangeable Parts—Simplicity—Light Weight—Power—Speed—Accessibility—Appearance—Durability — Possess Talking Points of Intrinsic Value that Your Sales Manager Fully Realizes and With Which He Can Successfully Meet All Competition.

The reputation of your motorcycle is made or lost by the motor you select. Wizard Motors possess many exclusive features not obtained in any other motor and will place you in the front rank. Details upon request.

Write for Description of Wizard Cyclecar Motors.

WIZARD MOTOR CO., INDIANAPOLIS, IND.

H. T. ROBERTS, Representative, Railway Exchange Bldg., Chicago

WIZARD MOTOR CO. INDIANAPOLIS

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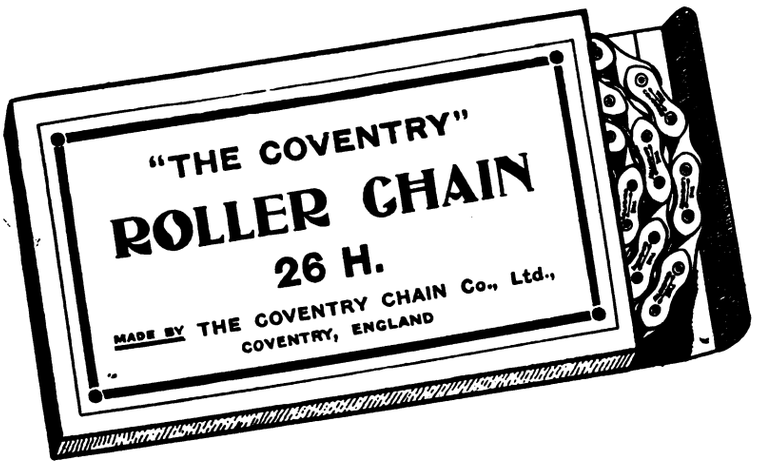

For Quick and Convenient Handling

each length of "The Coventry" Chain will hereafter be packed in a handsome heavy yellow cardboard box. This method of packing will serve a two-fold purpose. First, it will enable the dealer to mail a set to a customer without repacking or delay of any kind. Secondly, the striking appearance of the box will invariably attract the most casual observer's attention and arouse his curiosity.

Of course the enviable reputation enjoyed by "The Coventry" Chains requires no aids of this nature to hold and bring trade. But it is only another instance of "The Coventry" thoroughness. "The Motor's True Mate." No empty words are these, but earned by "The Coventry" Chains' proven consistency in service.

"The Coventry" Chain

Learn more about "The Coventry" Chain from handsomely illustrated catalog. And our Tiger Color Coventry Pennant will be mailed to any address upon receipt of 10 *cents in stamps to cover postage and packing.*

SARCO ENGINEERING COMPANY, 112 Broad St., NEW YORK.

Frame Parts
Rims
Pulley Rims
Mud Guards

As pioneers in the production of these articles we have acquired a reputation for high quality that becomes an asset to all who use our products.

Our frame parts are made from individual blue prints only and we use in their construction only the finest quality of

"Standard Steel Tubing"

THE LIGHTEST, STRONGEST, SMOOTHEST STEEL TUBING MADE

THE STANDARD WELDING COMPANY
CLEVELAND, O.
OFFICES IN
New York Chicago Detroit

MECO

A Square Deal

made this big business. In 1904 we started to sell

MECO SUPPLIES

Our big effort is to please each customer by giving lowest prices as well as quick shipments and satisfactory service. This is why we are selling more than all other houses.

Write for catalog of 1216 articles you should know about.

Motorcycle Equipment Co.
Hammondsport, N. Y.
3664 South Main Street, Los Angeles, Cal.

MECO

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MOTORCYCLE MART

One time, three cents a word; twice, two cents a word each insertion. Agents' cards, five cents per word; two or more times, three cents per word each insertion. No advertisement for less than fifty cents.

FOR SALE OR EXCHANGE

FOR SALE.—One 1912 Emblem motorcycle with sidecar; $125. One 2 h. p. M. and M. twin motor; carbureter, coil and muffler, $50. H. Haskel, Spencerville, Ohio.

HAVE YOUR license on neat and strong. Blue prints of five-minute-made holders for Indian 10 cents by first mail. G. W. Haywood, Kingsland, New Jersey.

FOR SALE, CHEAP.—One brand new 9 h. p. Twin Spacke Motor, complete with two speed and reverse planetary; suitable for cyclecar. Address Box P, care Motorcycle Illustrated.

MOTORCYCLES CHEAP.—Every motorcycle in stock must be sold this month; need room for large shipment of 1913 Eagles. Write for list "I." American Motor Co., 2724 Michigan avenue, Chicago, Ill.

FOR SALE.—My new 1913 Harley-Davidson Twin. Run less than 100 miles; perfect condition; better than new; a bargain. $250. Rex K. Jennings, Lawrence, Mich.

FOR SALE.—One Pope Overhead Valve 7-8 horse power motorcycle motor, absolutely brand new and never run except at the factory. This motor is complete with Bosch magneto, Schebler carbureter and sprocket. Price, $85, send $5 with order, balance C. O. D. Box 86, Indianapolis, Ind.

FOR SALE.—New 1912 Flanders motorcycle, 4 h. p. With Splitdorf magneto, flat belt, machine complete with full set of tools for $119 f. o. b. Athens, Ga. A. A. Jordan, Athens, Ga.

WHY BURN or shock your fingers? Air adjuster for Pilot Jet on Indian carbureter—25 cents by first mail. G. W. Haywood, Kingsland, New Jersey.

FOR SALE.—Six thousand dollars will purchase a well-established, prominently located motorcycle business in the best field in New Jersey, large accessory trade, good repair shop, agent for two leading makes of motorcycles and bicycles. Address Business Enterprise, Motorcycle Illustrated.

WANTED.—To exchange a 1-horse combination lunch, cone and popcorn wagon costing $387, used one season, fully equipped, for twin motorcycle not older than 1912, equipped and in A1 condition; Indian preferred. Write for photo and description of wagon to Fred T. Gilbert, Box 345, Delhi, N. Y.

FOR SALE.—Tandem attachment, complete; adjustable springs; cost $20; will sell for $10. George L. Vance, American District Telegraph Co., Bridgeport, Conn.

SOL. LAZARUS 216 East 59th Street
(The man with the goods) (at Queensboro Bridge)

FOR SALE.—M. M. Motorcycle, single cylinder, 4 h. p., good running condition; bargain, $40. Oscar Stromer, Gillett, Wis.

FOR SALE.—Harley 1912 single. Run 400 miles. A1 condition. With equipment. Best offer over $135 takes it. W. D. Brooks, Cloverdale, Mich.

WANTED TO EXCHANGE, Indian single (08 model) motorcycle for sidecar, or best offer. W. N. Crane, 397 East 155th St., New York.

DON'T BUY a V belt until you have seen the Duke V belt. Write today. Jas. Dukelow, 4509 Wilcox Ave., Chicago.

TO EXCHANGE.—Ten acres of Florida land adjoining Marshall Field's famous grove for 1913 twin Harley-Davidson. Y. Allen, Ft. Scott, Kan.

FOR SALE.—1911 Harley-Davidson twin with 1912 engine, new belt; in fine condition; $140. Also Stewart speedometer, Harley tandem attachment, Adams shock absorber and new Acme siren, cheap. George Ladd, Vineland, N. J.

FOR SALE.—1912 Pierce four-cylinder, two-speed gear, runs and looks like new, $235. Photo. Dr. Atkins, Rogersville, Mo.

FOR SALE.—1913 Thor Twin (white); good as new; fully equipped, No. 7 Old Sol light, Stewart speedometer, Barco exhaust, horn, luggage carrier and cushion, Prest-O-Lite tank. $325. Good reason for selling. E. C. Gurnee, Bloomingdale, N. J.

WANTED.—Free engine clutch; also frame with tank, handlebars, wheels and seat post. H. C. Rusha, Jr., Old Town, Maine.

FOR SALE.—1912 Twin M. & M., in fine running condition; $140. Arthur Wright, Commercial Hotel, Du Bois, Pa.

FOR SALE.—Having discontinued the racing game I will sacrifice my two direct-drive, ported, racing machines; guaranteed very fast, one 7 h. p. and one 5 h. p. Indian. Earle S. Eckel, Washington, N. J.

ONE NEW SIDE CAR, will fit any motorcycle; complete, $25. H. Kaskel, Spencerville, Ohio.

HELP AND SITUATIONS WANTED

SALESMAN WANTED.—To sell well advertised and much called for motorcycle article as side line. Big money to be made. Write at once stating full particulars. Replies held strictly confidential. Address C. M. C., care of Motorcycle Illustrated, New York.

WANTED.—Good experienced motorcycle salesman, to sell Indians in the best territory in the world. Liberal commission. Guy W. Campbell, the Indian Man, Waterloo, Iowa.

MISCELLANEOUS

BARGAINS in motorcycle supplies and slightly used motorcycles. Write for particulars. Jewell E. Pierce, Magnolia, Miss.

REWARD.—Twenty dollars ($20) reward for the return of Pope motorcycle, Motor No. 370, Wata Wata belt, Columbus 1913 tag No. 19. Twenty dollars ($20) additional for the arrest and conviction of man giving false name and address in order to rent same. Name given, James A. Bogart, 482 S. Front street, deaf and dumb, or pretends to be so. E. M. Gorrell, 1243 N. High street, Columbus, Ohio.

FOR SALE.—Large Stock, well established motorcycle business in the best field in New Jersey; agent for two leading motorcycles, bicycles, with a large accessory patronage. Address Business Enterprise, Motorcycle Illustrated.

PARTNER WANTED in a well going and fast growing motorcycle accessory business. Orders have doubled this year over last and cannot supply the demand on account of lack of manufacturing facilities. It will pay to investigate. Address "A," c/o Motorcycle Illustrated.

MAKE YOUR MOTORCYCLE PAY by using a kodak under our direction. We want travel pictures. Send for particulars. Pacific Motographers, Browning and Addison streets, Berkeley, Cal.

NEW SLEEVE DEVICE for Indian double jet carbureter, starts motor instantly, 60 cents postpaid. State whether for single or twin. G. A. Allen, Livermore Falls, Me.

WANTED.—Good belt, 1¾ x 8 ft. 8 in., also free engine clutch. Fred Boots, Wabasha, Minn.

STOLEN.—Blue Indian twin, 1912 model, motor number 78D-768. Taken from Brighton Beach Motordrome, May 23. Reward, $25. William Specker, 1121 Avenue R, Flatbush.

DEALER'S CARDS, Etc.

GUS ROTHOLZ, agent for Indian and Excelsior, 1491 Fifth avenue, between 119th and 120th streets, New York. Telephone, Harlem, 2337.

RIVERSIDE MOTORCYCLE GARAGE.—Distributors for Reading-Standard and agents for Eagle motorcycles, Simplex side cars and F. N. combination tandem attachment and luggage carrier, complete, $15. 1913 models in stock; also a large number of used machines at bargain prices. A complete machine shop; all repairs and supplies. 533 West 110th street, near Broadway. Tel. 10071 Schuyler.

"BOB" BRAZENOR, specialist on repairs, Brooklyn agent for Harley-Davidson and Excelsior motorcycles. Parts and supplies for all makes in stock. 1507 Bushwick Ave., Brooklyn, N. Y.

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M.-M. AND EAGLE motorcycles. Two big twins—$240 and $275. Two big singles—$200 and $235. The largest and most powerful line in America. Full line of parts and accessories at George P. Jenkins, Eastern Distributor, 312 Amsterdam Ave., New York City.

THE NEW YORK Motorcycle Co., 782 8th avenue, New York City. Distributors of Thor motorcycles and parts. We have the only supply of parts in America for F.-N. and Royal Pioneer motorcycles. We also carry a big stock of parts for Indian, Curtiss, M.-M. and R.-S. We have at all times over 50 used machines at all prices. We repair broken cylinders, pistons and crank cases. We have the largest and best equipped motorcycle garage in the country and we do reliable repairing.

HAVE YOUR motorcycle overhauled now; expert work, moderate charges; ten years' experience in motorcycle repair work. Parts for N. S. U., Indian and Peugeot. Metropolitan Motorcycle Repair Co., 820 Amsterdam avenue, cor. 75th street, New York. Tel. No. 1001 Schuyler.

B. & C. TWO-SPEED and free engine gears for chain-driven motorcycles of the counter-shaft type. Bushnell & Cannon, 1268 East 80th street, Cleveland, Ohio.

THE LATEST AND BEST guaranteed Motorcycle Supplies at lowest prices will be shipped prepaid same day your order is received. You get satisfaction in every package. Write for largest Motorcycle Supply Catalog ever printed. Motorcycle Equipment Co., Hammondsport, N. Y.

BICYCLES, MOTORCYCLES AND FORD AUTO SUPPLIES—lowest prices. Get our catalog quick. Souvenir FREE this month. Rex Bicycle Co., 1947-1949 Orchard street, Chicago.

BARGAINS in motorcycle supplies and slightly used motorcycles; all makes at lowest prices Write today for my price-slashing bargain list. Write today; don't put it off another minute, for it means dollars saved. Jewell E. Pierce, Magnolia, Miss.

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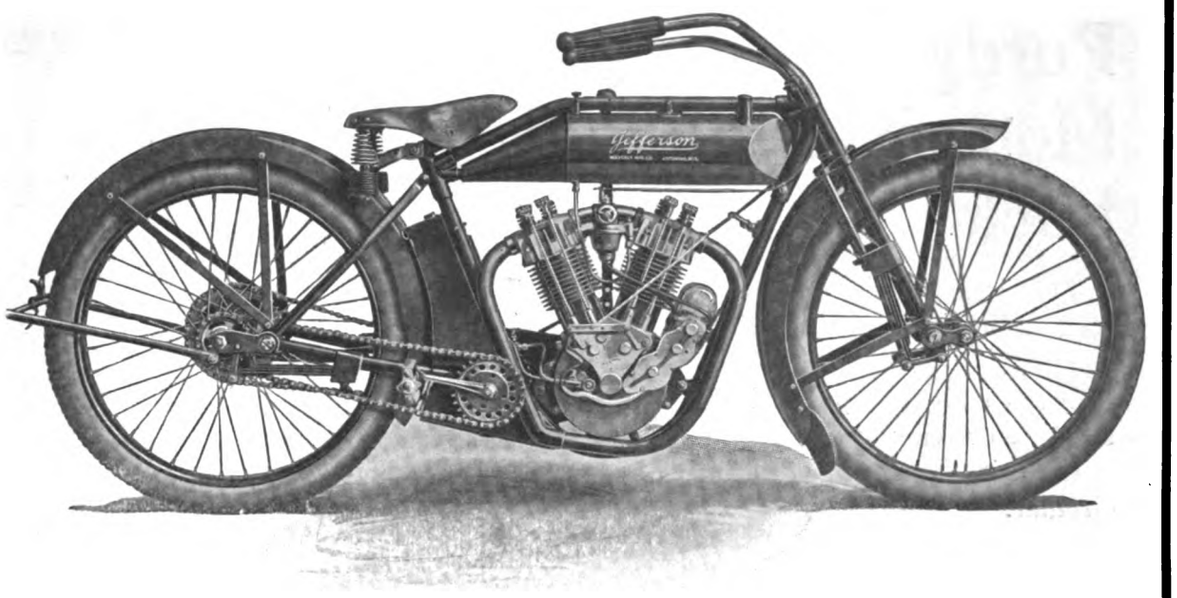
Handsome Is As Handsome Does



It's a beauty and no mistake, but don't judge by the looks alone. Note the automobile leaf springs, front and rear—the clean-cut powerful motor, with overhead valves, its perfect balancing. Note the absolute absence of superfluous parts, the simplicity of the grips, without clutch levers of any sort. Do you know what that stock motor can do, **without** special preparation or "tuning up" of any kind? Oh, only about 78 miles an hour! And without turning a hair. Yes, it's there with speed, but it's got service, too, in its make-up.

Our catalog tells the rest. Post a postal for it NOW.

Waverley Mfg. Co., Jefferson, Wis.

SUPREMACY

OF THE TWO-CYCLE MOTORCYCLE

PROVEN

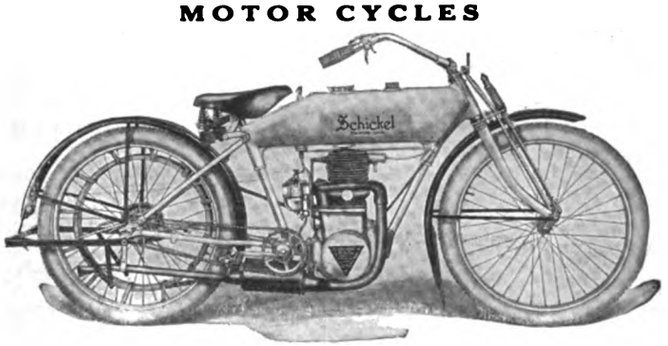
conclusively and convincingly by the winning of the English Senior Tourist Trophy Race

Two years in succession by a two-cycle motor driven motorcycle. This race is the most important event in the British Isles and the world's greatest reliability test.

VALVELESS

Gives absolute and inexhaustible dependability for all around service. The tourist or boulevard rider can always be sure of a machine whose silence and smoothness of operation and ease of control are **matchless.** To know what it means to ride a motorcycle free from motor adjustments; to be sure that your machine's

Schickel
MOTOR CYCLES



TWO-STROKE

lubrication system is unfailing and accurate; to feel a powerful valveless motor purring with smoothness and precision — these pleasurable sensations can never be realized until you ride a **Schickel.**

A postal brings complete information.

Remember this: The Schickel

IS SIMPLEST

IN CONSTRUCTION
30 less wearing parts than any other motorcycle.

IN OPERATION
All control right under your two hands.

WRITE TO-DAY

The Schickel Motor Company 59 GARDEN STREET STAMFORD, CONN.

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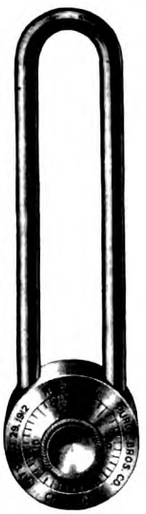
Purdy Motorcycle Lock



The latest addition to the meritorious line of Purdy Specialties. Inexpensive—cannot be picked—no keys to lose—operated like a safe. You cannot afford to be without it. Write for descriptive circular.

Purdy Fourtone Whistle

Creates a demand wherever blown.
Loud, effective, melodious.
Price, complete with handlebar or footboard control

$7.50

Note

Owing to the enormous number of orders, we were forced to fall behind on deliveries, but we are now located in our new factory and turning out tremendous quantity day and night. After May 24 we will be able to make immediate deliveries on all orders.

Dealers — Get our proposition. Write for our catalog today

PURDY BROS. CO.

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There is as much water for drowning purposes beneath a row boat as there is beneath a battleship—

and the chances of shipwreck are greater on board the row boat than on board the battleship—

Yet the battleship will carry life-preservers while generally the rowboat won't.

The Automobilist who carries a

Schrader UNIVERSAL TIRE PRESSURE GAUGE

and uses it,
is on a battleship and carries a life-preserver. The motorcyclist who does without a Schrader gauge and inflates his tires by guess work is in a row boat and without a life-preserver.
Stop inviting disaster and get a life-preserver.
A Schrader gauge will not only preserve the life of your tires, it may preserve yours.

PRICE ONE DOLLAR

For sale by Tire Manufacturers, Jobbers, Dealers, Garages, or

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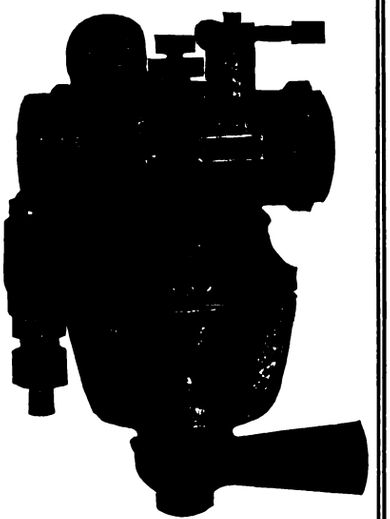
HEITGER MODEL K—1913

Made in ¾" and 1" pipe threads, and special threads for Spacke, Pope, H-D, Excelsior, Merkel, and Emblem, same list, ¾", $10.00; 1", $10.50. Where special fittings are needed, extra price. Has new air valve, no friction, or stems to wear, causing air leakage in low; air adjusted instantly from saddle, for starting, etc. Needs no priming in coldest weather. Furnished with glass or metal bowls, same price, the two being interchangeable.



HALF SIZE

Has new gasoline feed, two jets, one for low, one for high, with separate adjustments, giving minimum and maximum speeds. Owing to air valve action, etc., gives greatest possible speed to motor on minimum gasoline consumption. Light in weight, castings of aluminum, polished nickel plate.

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H. T. Roberts, Selling Agent,
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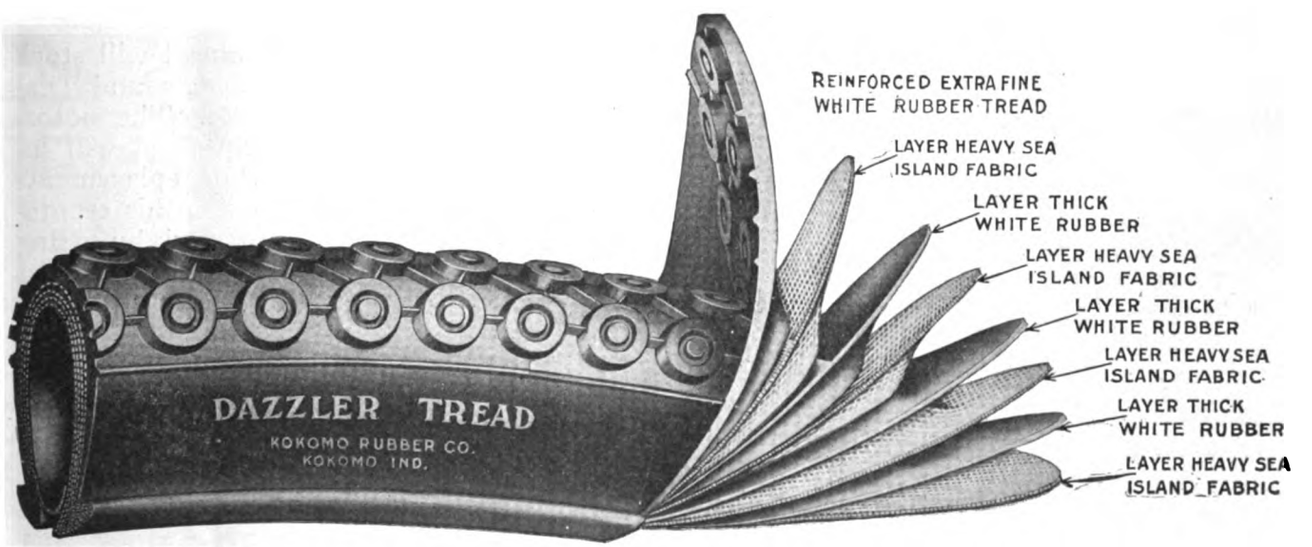

The Dazzler—A Real Non-Skid Tread

Dazzling indeed in its aggregation of service insuring features is this new arrival in the Kokomo group.

Note the distinctive studs. Your eyes give you the most convincing testimony as to their efficiency as skid and side-slip preventatives. Your common sense tells you that it would be impossible to find a more effective tread. And give your close attention to the seven alternating layers of thick white rubber and heavy Sea Island cotton. Can you find anywhere a more efficient, business-like tire? (Chorus) NO!

Send for our catalog. It tells the whole story.

KOKOMO RUBBER COMPANY, KOKOMO, IND.

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6 Reasons Why "Wetprufe" Belts Will Please You

If it's a *Wetprufe* motorcycle belt, you are guaranteed absolute belt satisfaction this year.

Flat or "V"—it makes no difference. Same quality. Same workmanship. Same guarantee.

There are many real reasons for *Wetprufe* satisfaction. Among them:

Wetprufe belts are—

1. Extra-thick
2. Extra-good
3. Water-proof
4. Weather-proof
5. Trouble-proof
6. Guaranteed

That's the kind of a belt you want, isn't it? Then, why not get it?

Just say *Wetprufe* and belt satisfaction is yours—***guaranteed!***

Your dealer can supply you with a Wetprufe belt. Ask us for new booklet—"Wetprufe Specialties."

HIDE, LEATHER & BELTING CO.
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H. T. Roberts, Selling Agent, Railway Exchange Bldg., Chicago.

Why Are Standard Products Invariably Specified?

Because years of conscientious manufacturing methods, coupled with an unusually high standard of quality, have built for STANDARD products an enviable reputation.

No manufacturer of any prominence but uses the

Diamond E Spokes and Standard Pedals

"STANDARD in NAME and QUALITY" are no empty words when applied to STANDARD PRODUCTS.

Diamond E Spokes and Pedals rank as the highest mark of perfection.

To liken a product to STANDARD is to bestow upon it high praise indeed.

The dealer who looks ahead will stock heavily with Standard Pedals and Diamond E Spokes and Nipples. The motorcycles that are not so equipped will invariably come to his shop for replacements and it is up to him to sustain his reputation for high-grade repair work by fitting Standard parts.

No. 3 MOTOR CYCLE PEDAL

The Standard Co.

Torrington, Conn.

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A Fine Tandem *Built for* Service

Price $7.00

Complete with Cushion, two Straps and Foot Rests. Clamps Firmly to Carrier. Guaranteed to stand up.

This one for **1913 INDIAN**

"Majestic" Tandems for all other Motorcycles.

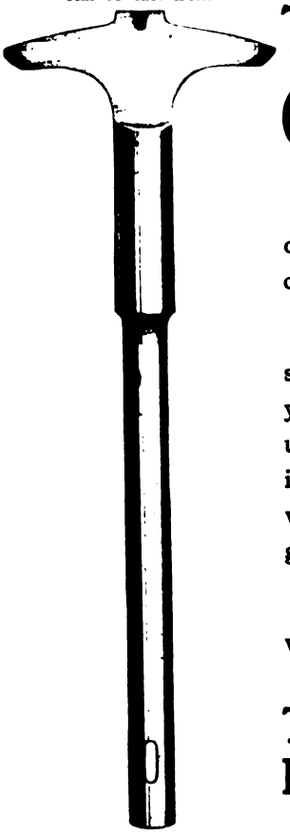
We build fine **SIDE-CARS** and numerous other accessories. See page 20, this issue.

Write for our Catalogue.

The Majestic Manufacturing Co.

36 Southbridge Street :: Worcester, Mass.

Section of head showing rim of cast iron.



This Valve with the Cast Iron Seat

It is the first valve to give unqualified satisfaction in motorcycle service.

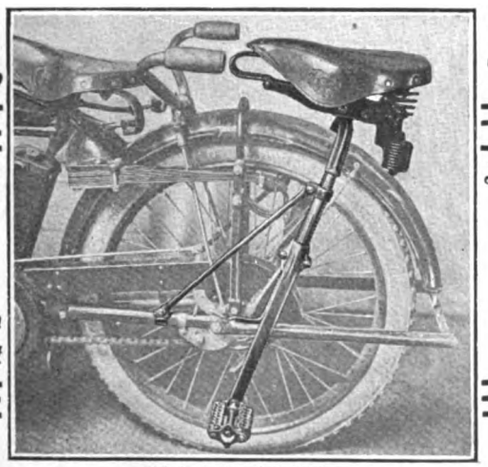
The principles on which it is designed have been worked out in years of experience in valve manufacture and every valve trouble is overcome by a positive remedy which has been tested and proved good.

If you use valves in quantity it will pay you to investigate.

The Electric Welding Products Co., Cleveland, O.

"E and C" Spring Tandem

Makes a Crony of old man Comfort



Makes every road a Boulevard

(Patent Applied For)

The "E & C" Spring Tandem is without question one of the strongest and most comfortable tandems ever built. It is especially designed for lady riders and will be found ideal for this purpose. Note carefully the following exclusive features:

1—Equipped with BOTH compression and recoil springs, absorbing all downward and upward shocks and vibrations.
2—Lowest possible saddle position—only 32 inches from ground to top of saddle.
3—Built of cast steel fittings and heavy-gauge tubing, and strongly reinforced at vital points
4—Has absolutely no side-sway, so common to most tandem attachments.
5—Equipped with handle bars, pedal foot-rests. Mesinger Standard No. 4 saddle. Nickel plate finish.
6—Pedal foot-rest leg made to swivel on tubing, which prevents snapping off in case of a fall.
7—Sold under guarantee of freedom from imperfections.

Retail Price, Complete, $16.00

Dealers' quotations on request.

The "E. & C." CHAIN IDLER

Keeps your pedaling chain tight—a most valuable device to use on chain-driven motorcycles of countershaft type. Price $7.50.

E. & C. MFG. CO., 1717 Ludlow St., Phila., Pa.

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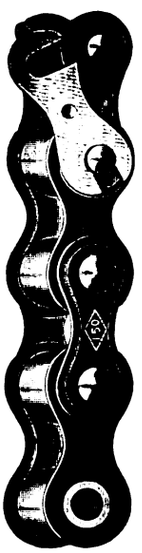
DIAMOND MOTORCYCLE CHAINS



assure a safe, strong, dependable drive under all road and weather conditions—particularly when most needed—in rain, mud, sand, or hilly country.

Be sure your machine is prepared for service in every emergency by being equipped with a Diamond No. 150 Motorcycle Chain.

LOOK FOR THIS TRADE ◇ MARK ON EVERY LINK

Diamond Chain & Manufacturing Co.
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Capacity 8,000,000 feet per year

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"The Tools that are guaranteed"

We put the best quality of steel into them—drop forge them—critically inspect them—and then give to them a guarantee that safeguards you absolutely against all possible dissatisfaction.

For convenience, ease of action and durability, there is no tool like a Billings and Spencer tool.

Most complete manufacturing facilities for the making of motorcycle drop forgings.

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like all well constructed, high quality products show their excellence by actual test.

Mott Rims

stand the strain of the severest road tests unflinchingly and with plenty of reserve strength. They are tremendously strong and elastic.

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AMERICAN LEAGUE OF PROFESSIONAL MOTORCYCLE RACING CLUBS

organized to establish Board Track Racing as a great national sport.

CIRCUIT

Chicago
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Inter-City Races every Wednesday, Saturday and Sunday night.

We have room for more experienced riders. Address 301 Cuyahoga Bldg., Cleveland, O.

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Confidence in Your Transmission

While the fact that a transmission is used by 90% of English chain driven motorcycles—that it is made by the maker of the first cycle chain ever built, that machines equipped with it have won the leading motorcycle classics in England time and again—while these facts are all true in connection with the

RENOLD CHAIN

it is the appearance of the chain itself that should instantly convince you of its reliability—of its marvelous strength. If you could see the stupendous manufacturing facilities behind the RENOLD CHAIN, the thousands of operations and inspections which it undergoes, you would understand *why* RENOLD CHAINS invariably deserve the confidence that is placed in them.

Our booklet, "Hints on Chain Drives for Motorcyclists," is free to every rider who sends in the name of his dealer.

Peter A. Frasse & Co.
410 Canal St., New York City

"Keeps Your Motor Young"

Yes, that's what Maroline Motorcycle Oil does by insuring the highest degree of lubrication and maintaining perfect compression. It always renders full power and speed. Carbon proof.

Maroline MOTORCYCLE OIL

Specially manufactured from brightest filtered Pennsylvania Stock, exclusively for the motorcycle.

The Sealed Package

protects motorcyclist and dealer. Ask your supply man for Maroline Oil, put up in handy tins—halves, ones and fives (gallons). Insist on original tins.

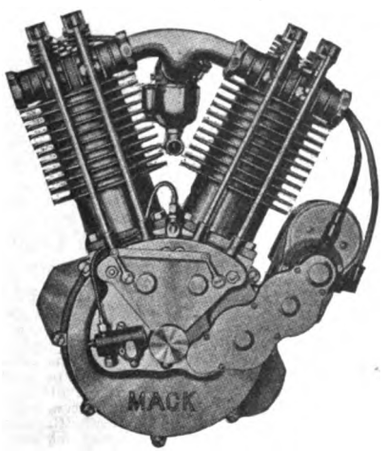
If your dealer doesn't carry it write us, giving his name and we'll see that you're supplied.

Marshall Oil Company
Marshalltown, Iowa, U. S. A.

TO DEALERS—Price for 50 gallon lots in lithographed tins about the same as good motorcycle oils sell for in barrels. You are thus protected against leakage. Cases packed as follows:
Two 5 Gallon Tins
Twelve 1 Gallon Tins
Twelve ½ Gallon Tins
Write for free samples and compare with other oils you have used.

"MIGHTY MACK" Motors

Most powerful, speediest and most accessible motor ever designed. Built in four sizes—4 and 5 H.P. singles—7 and 9 H.P. twins. Overhead valve mechanism—patented positive action mechanical oil pumps.



BEST MOTORS MADE

We are filling orders for Manufacturers' 1913 requirements.

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Universal Machinery Co.
1913 St. Paul Ave. Milwaukee, Wis.

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DEVICES LEAD THE WORLD FOR EFFICIENCY and ECONOMY

SUPPLIED BY DEALERS EVERYWHERE

MONDEX-HELIX GAS MIXER

REDUCES YOUR GASOLINE BILLS 25 TO 40 PER CENT.

ON AND AFTER JUNE 15th PRICE OF MONDEX-HELIX WILL BE $5 ALL SIZES

The Mondex-Helix is the *only* device of its kind that is scientifically perfect and automatic in its action, yet made *without* any revolving, moving or complicated parts—requiring no attention whatever and which cannot get out of order. Also, it is the only device of its kind that may be installed quickly and easily without cutting piping, drilling or making any alterations in your motor. Send for Booklet "R."

THE ARISTOS COMPANY
250 W. 54th Street New York

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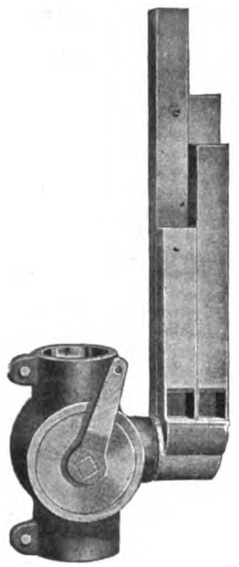
Trinity Chimes Exhaust Horn

"YOU CAN HEAR IT EVERYWHERE!"



The only signal that will warn pedestrians in the proper manner. Absolutely self-cleaning. Easiest horn to attach. Out of the way and cannot jar off. Its classy appearance is a subject of interest to the motorcyclist.

To Dealers

Let us send you a "Trinity Chimes" horn today. It is the biggest seller in the accessory line. It is only necessary for a rider to hear it once and the horn is sold. It is a "live wire" that makes money for the dealer.

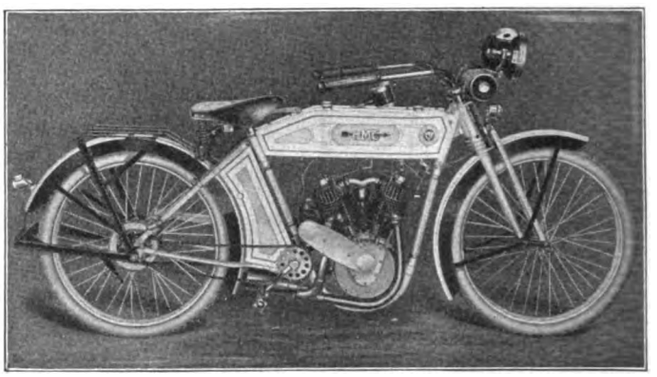
We are offering a

SPECIAL

***discount* to dealers and jobbers who answer this advertisement. This offer is void after June 20th.**

Write at once

COMING MANUFACTURING CO., Dept. L.
Railway Exchange, Chicago, Ill.



Twin Model 37C, $285.00
Single Model 34C, $245.00

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New Catalog—Gives the reason

Allied Motors Corporation

Union Park Place and Carroll Avenue
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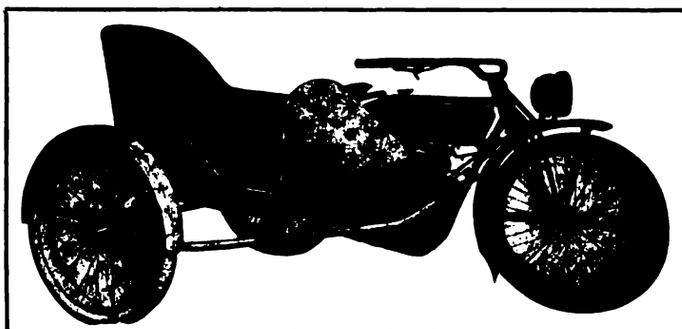
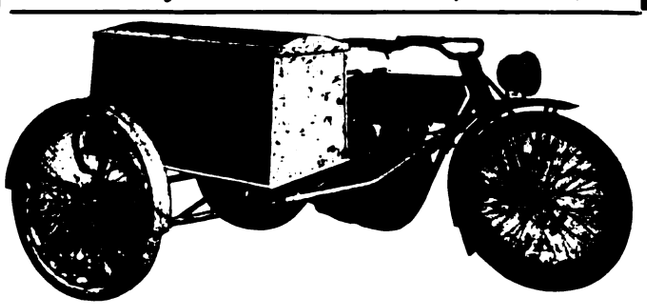


"ANDERS"

From both a business and pleasure standpoint, the Anders line of sidecars has tremendous opportunities. Their substantial yet graceful construction, the unique "rocker motion" which immediately puts them at the head of the line in the comfort class, and, finally, the reasonable price at which they are sold, makes them a proposition which no clear-thinking dealer can afford to overlook. Get our booklet today.

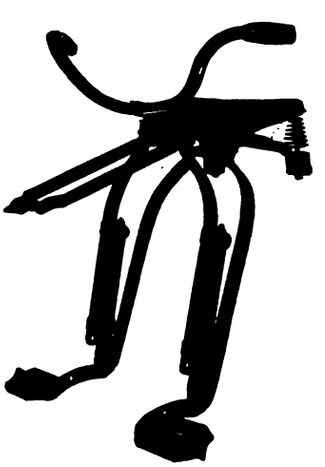
National Cycle Accessories Co., Aurora, Ill.



Simplicity—Comfort—Stability

The Empire Special

SPRING TANDEM



"IT FLOATS"

You wouldn't seriously consider purchasing a motorcycle that does not possess at least these three cardinal points. Then why permit a tandem attachment to be fitted on your machine, that has not proven to your complete satisfaction that it possesses these three characteristics in full measure? Here is

The Empire Special Spring Tandem

"IT FLOATS"

There is nothing about the Empire Special to get out of order. Simplicity is the keynote of its construction.

By a peculiar and ingenious invention, for which patents have been allowed, the Handle Bars and Pedals are caused to float with the saddle, insuring the maximum of comfort and smooth riding on the roughest of roads.

The famous Kelly No. 10 Adjustable Handle Bars are fitted on all Empire Specials.

Constructed of steel and no malleable parts, the Empire Special is practically indestructible.

Ask your dealer for our booklet. If he hasn't it, send us his name and you'll get one by return mail. The Empire's proof of superiority is in it.

EMPIRE SPECIALTY COMPANY
Office, 147 The Arcade CLEVELAND, OHIO
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You Soon Note the Difference

More Power—Quicker Pick-up—Increased Speed. All from the use of

HARRIS

TRADE MARK REG. U.S. PAT. OFF.

OILS

Your motorcycle is a delicate machine. Proper lubrication is essential. Especially in hot weather is it necessary to insist upon the best oil—quality oil that **cools** the motor and lubricates without burning.

HARRIS OILS are refined from the best Pennsylvania Crude stock.

"A Little Goes a Long Way and Every Drop Counts."

A. W. HARRIS OIL CO.

326 S. Water St., Providence, R. I.
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"Welcome 'Grip-Tite'!"

Says the motorcyclist who has wearied of the constant physical strain of hands on handlebars. "Grip-Tite" comes to him as a welcome relief.

Grinnell Gloves

Sold with a Bond

The "Grip-Tite" double corrugated palm and inner thumb double the service, ease the grip and maintain a steady, firm, non-slip grip on handlebars. Grinnell "Grip-Tite" style Gloves are flexible and easy on the hands, are washable in soap and water or gasoline and always remain soft and comfortable. Ventilated or unventilated.

Grinnell Gloves are many in styles and include not only the "Grip-Tite" but street and dress gloves. There's one to suit your particular need or fancy. They never peel, harden, shrink, scuff or crack with service. Ask to see them at your dealer's or Write us for free glove book and samples of leather and "Pair on Approval Prepaid" offer if your dealer doesn't carry them.

Morrison-Ricker Mfg. Co.

Established 1856

27 Broad Street **Grinnell, Iowa**

"Whitney" Chains are made from steel best adapted for the purpose, carefully hardened and calculated to resist the most wear, while in the matters of machining and assembling the utmost care is exercised and thorough inspections characterize each process of manufacture.

When making replacements insist on a "Whitney."

The Whitney Mfg. Co.

Hartford, Conn.

VICTOR OLD RELIABLE MOTORCYCLE LAMP

From sales and inquiries received at Chicago Show this lamp will undoubtedly exceed the tremendous success of the famous X-Ray.

A glance at specifications will convince every rider of the desirable features of this lamp—greatest of which is the enormous size, genuine mangin mirror, 6½" diameter, unheard of before in the history of motorcycle lamps.

Specifications.

Front diameter	8¼"
Body "	6½"
Size of lens	6½"

Manufactured by

VICTOR AUTO PARTS CO.

CINCINNATI, OHIO

Selling Agents

FULTON McCUTCHAN CO.

1146 MICHIGAN AVE., CHICAGO, ILL.

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LOOK——

No matter how fast you go you CAN look when you wear an **Autoglas** (Patented May 2, 1911) for your eyes are fully protected as they cannot be with any other style of eye protect or. The hing- ed bridge al lows the glass to conform to the curves of the face and excludes all dust, air and wind.

THE ONLY EFFICIENT EYE PROTECTOR

For sale for $5.00 with lenses without focus, or $9.00 with your correction by your dealer or if he hasn't them write us and we will see that you get them.

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Send us your name and address and we'll mail you a free copy of the snappiest little motorcycle magazine you ever fastened your eyes on. It's chock full of new, live, interesting matter.

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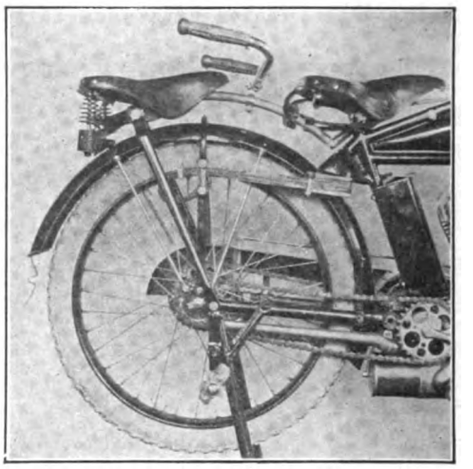

Model A. Patent Pending.

MUELLER TANDEM ATTACHMENT

TO FIT ALL INDIAN MOTOCYCLES

Specially Adapted to New Spring Frame Models

MODEL A attachment is for 1913 spring frame machine and does not interfere with frame action. Attachment is made of steel tubing and drop forgings, well brazed—enameled and nickeled. Large Troxel motorcycle saddle, adjustable handle bars, standard No. 3 pedals. Enameled red to match motorcycle.

L. J. MUELLER 6307-09-11 Woodland Ave. CLEVELAND, O.

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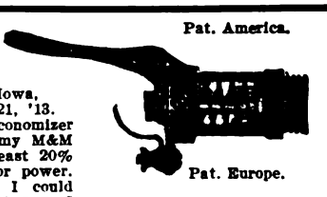

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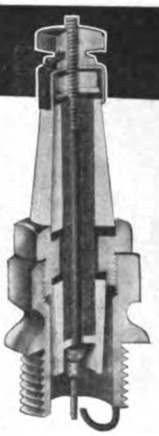

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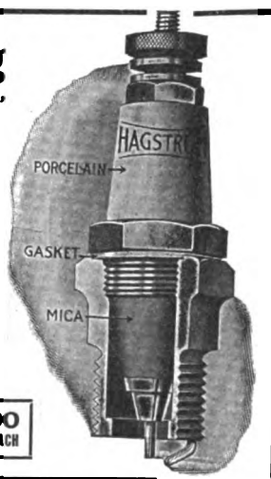

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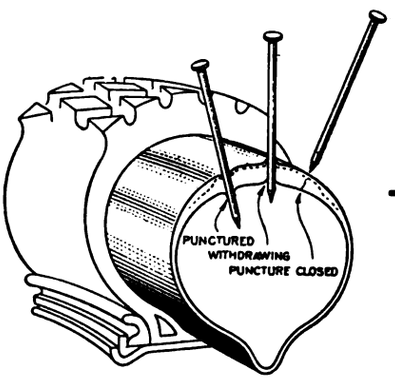

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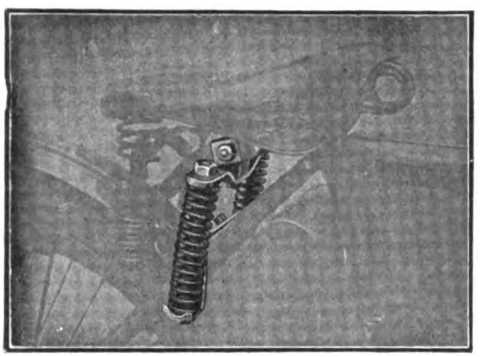

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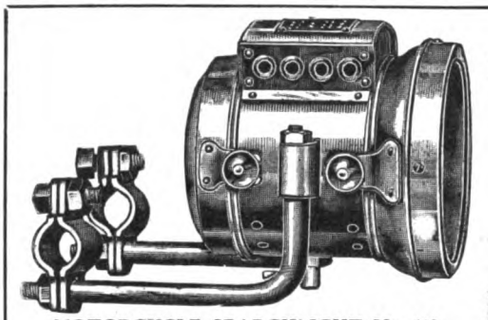

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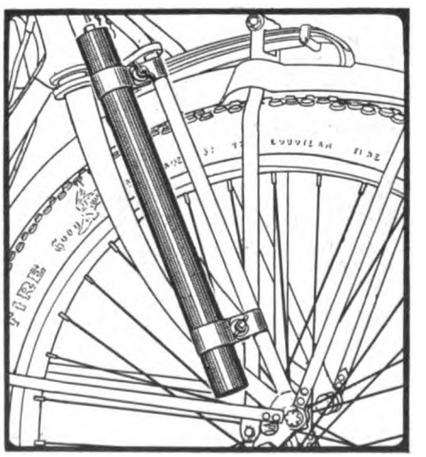

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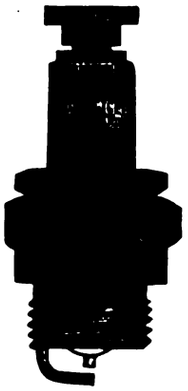

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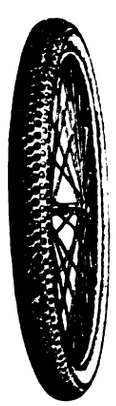

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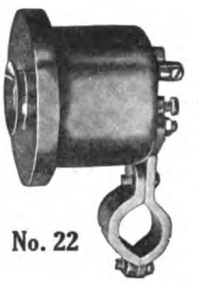

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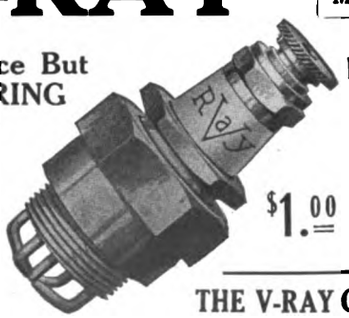

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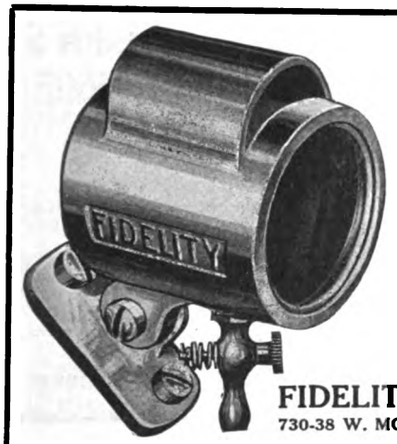

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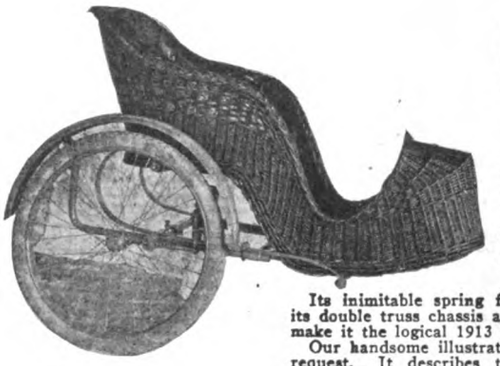

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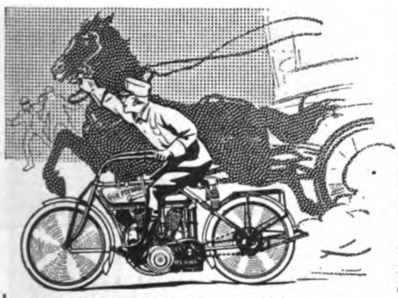

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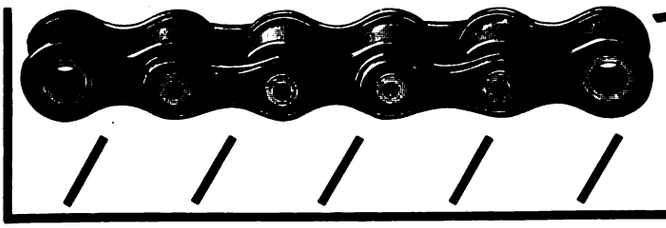

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Price 50c., or complete with cable, 75c. By mail, postpaid. We also make the celebrated Simplex Side Cars. Let us send you our booklet.

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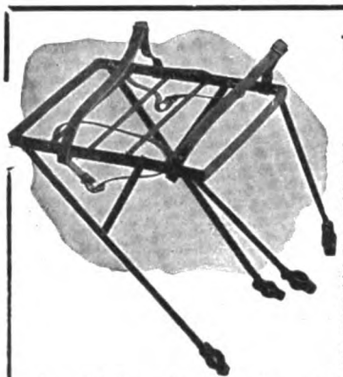

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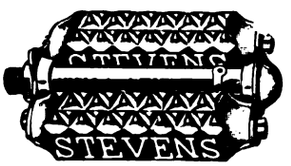

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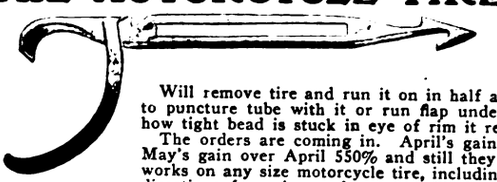

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"I received the Jimmy, and the first man I showed it to threw down a dollar and walked off with it, remarking 'Just what I need.' Please find amount enclosed for one dozen, etc.

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In two parts, polished; length, 8 in.; weight, 8 oz. Should be in every kit. Satisfaction guaranteed. Dealers write for prices.

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1912 Thor White, 5, $175; racing Thor, 4, very fast [from Riverview track], $100; 1912 four-cylinder Pierce, $250; 1910 four-cylinder Pierce, $175; 1912 Harley-Davidson, $175; six h.p. Thor Twin, [magneto], cost $300, $140; 1911, spring frame, Greyhound, cost $225, $100. All above machines in excellent condition; mostly late new ones; slightly used; many others down to $25.

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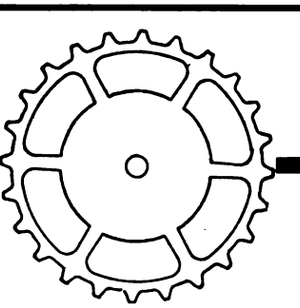

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Of Course, Gale Used the Spartan V-Belt on that Wonderful Ride!

Gale has done it again! That indomitable rider, with an extra passenger, left Angola, N. Y., Thursday afternoon, May 15th, making Boston in 19 hours, an average of a little more than 31 miles an hour! And, of course, his transmission was the SPARTAN V-BELT.

Picture to yourself the terrible punishment the transmission went through on that record-breaking ride. Six hundred miles of continuous "road bucking"—through a driving rain storm—over roads hub-deep in mud—up steep winding hills—always with unabated, unflagging speed—these are the conditions through which the SPARTAN BELT came triumphant, with Gale's laconic praise, "No trouble at all."

The epoch-making performance has proven beyond the slightest shadow of a doubt what we have consistently maintained:

That SPARTAN BELTS are not only quiet, comfortable, economical, trouble-proof, non-wearing on motor bearings and gears, but they are absolutely immune to *any* and *all weather conditions.* Their secret tannage absolutely protects them from cracking, stretching or slipping.

SPARTAN BELTS, we say, again, have conclusively proven that they are anything but a "fair-weather" transmission. They have forcibly demonstrated their supreme fitness for *every* occasion, and they have once again brought to the attention of the riding public their flawless, consistently efficient SERVICE.

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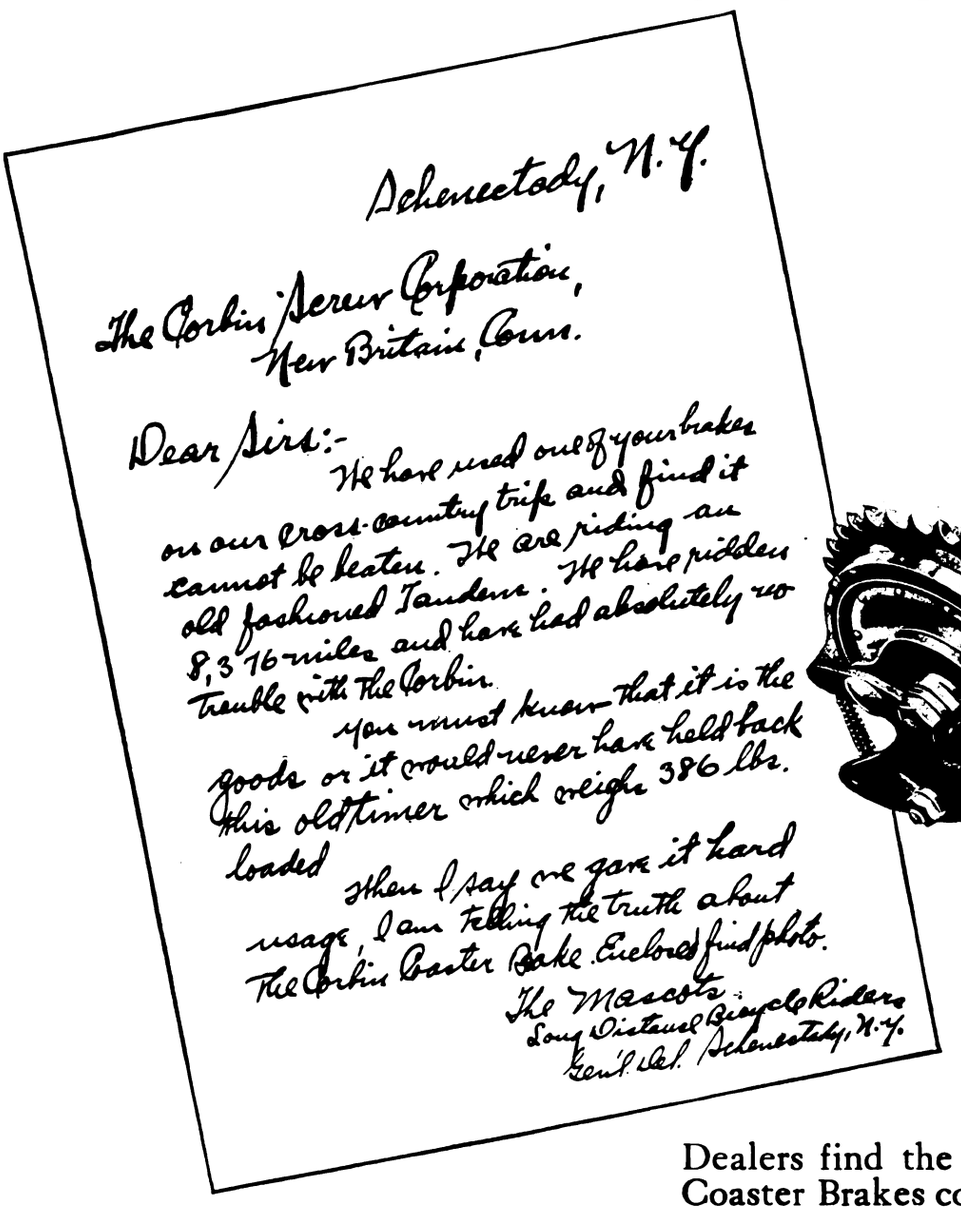
The Corbin Duplex Coaster Brake

Held Back This Old Timer Weighing 386 pounds loaded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The Corbin Screw Corporation,
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Dear Sirs:- We have used one of your brakes on our cross-country trips and find it cannot be beaten. We are riding an old fashioned Tandem. We have ridden 8,316 miles and have had absolutely no trouble with the Corbin.

You must know that it is the goods or it would never have held back this old timer which weighs 386 lbs. loaded

When I say we gave it hard usage, I am telling the truth about the Corbin Coaster Brake. Enclosed find photo.

The Mascots
Long Distance Bicycle Riders
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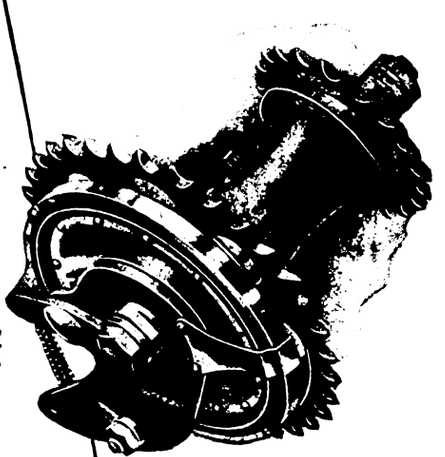

Dealers find the demand for Corbin Coaster Brakes constantly increasing. Why not help meet this demand?

Write for free 1913 Catalog describing all Corbin Brakes and Hubs.

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Makers of the Famous Corbin Brown Speedometers for Motorcycles

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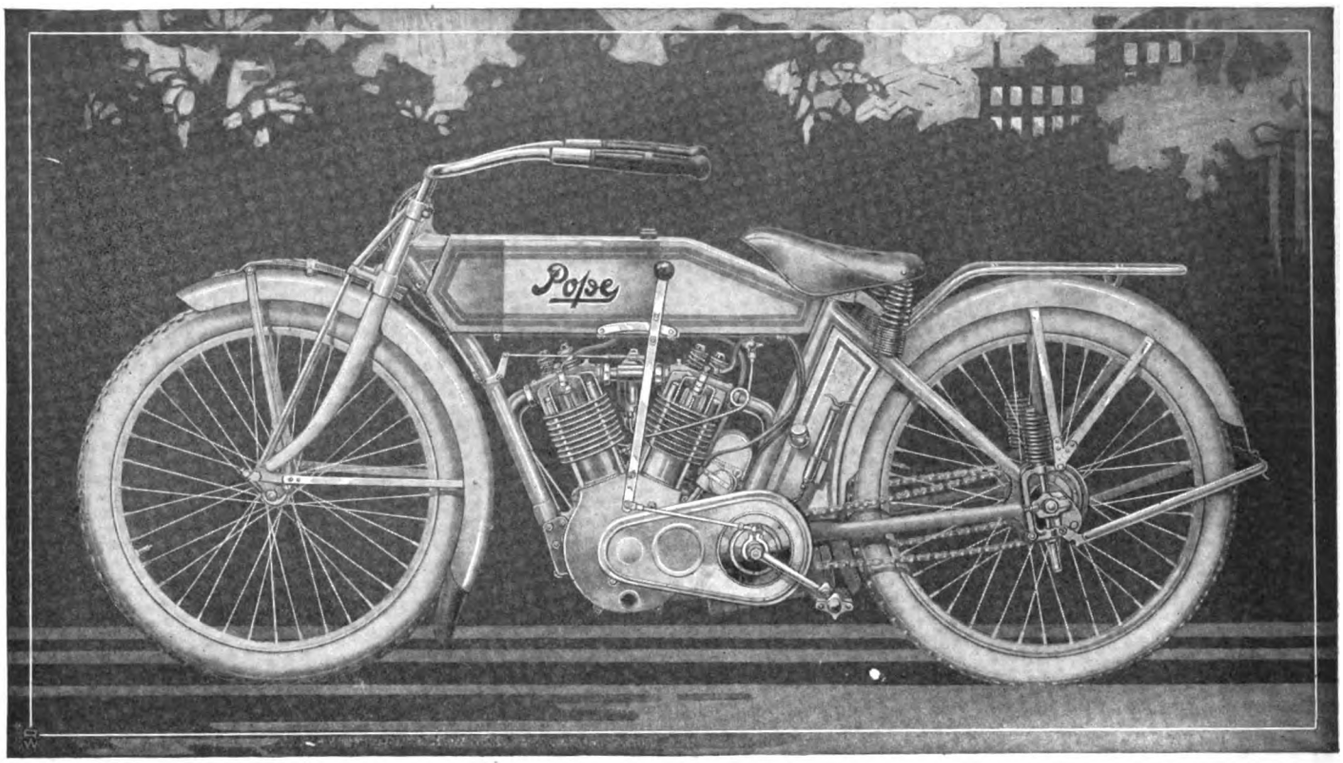

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The Pope "Twin" has all kinds of excess speed and power. It will carry you along at a faster clip than any other stock machine. Motorcycle experts of wide experience who have given the POPE "TWIN" a good tryout call it unquestionably the MOST POWERFUL MACHINE of its type.

Only the other day a prominent accessory manufacturer bought a Pope "Twin" on account of its great power for use in testing out his apparatus. In action the Twin's wonderfully powerful overhead valve motor will drive the machine anywhere at a tremendous rate of speed.

POPE, MODEL L
SPEED—OVERHEAD VALVES—POWER

Carrying out our policy of making improvements as we go along, we are able to announce the following:

NEW CAMS—Designed to produce the speediest twin cylinder machine on the road and a demonstration of the improved Pope "Twin" will convince you that we have succeeded beyond all expectations.

CUT-OUT—All Pope "Twins" are now equipped with convenient muffler cut-outs.

FOOT-RESTS—We are now furnishing comfortable foot-rests on all Model L's as part of the regular equipment, along with pedals.

COUNTY POLICE BUY EIGHT POPE "TWINS".

Eight Pope "Twins" have been purchased for the use of the police of Fulton County, Georgia. Largest single order ever placed in Atlanta.

A FEW RECORDS SHOWING HOW THE POPE "TWIN" PERFORMS IN ACTUAL SERVICE. 100 PER CENT. RELIABILITY.

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First in big amateur event. Only Pope Twin entered, was just taken from crate.

Southampton, L. I., Endurance Run.
Two Model L's entered and were actually the fastest on 225 mile run over bad roads. Checked in perfect and on time at every control from start to finish.

Milwaukee Journal Endurance Run.
A "Twin" and a Model H entered. Both awarded perfect score medals.

Model L, "Twin" 7-8 H. P..... $250.
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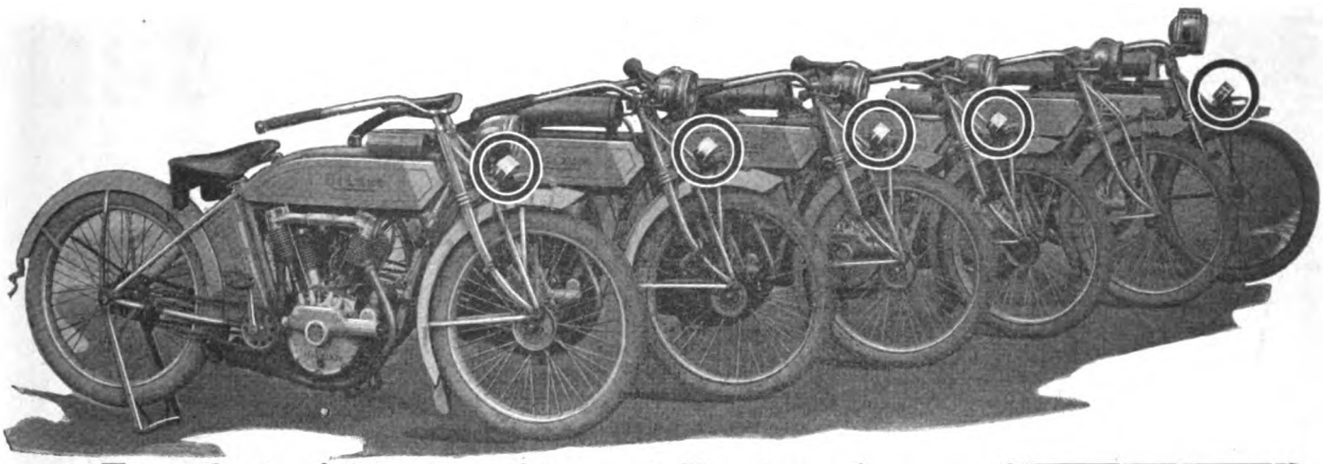

(Five Out of Six Are Stewart Equipped)

Stewart
Motorcycle Speedometer
With New Two-Belt Front Wheel Drive

$12
(Complete)

75-mile speedometer; 100,000-mile season odometer. 100-mile trip register, which can be readily reset to any tenth of a mile without disturbing total mileage of season register; front wheel two-belt drive, complete with pulleys and brackets.

WHEREVER absolute accuracy is required in motorcycle speed and mileage records, there you will find the new Stewart two-belt, front wheel drive speedometer. Watch the next hundred speedometer-equipped motorcycles you meet. Over 85 per cent. of them will have the new Stewart instrument.

The Stewart motorcycle speedometer sprang into almost instant favor—because it is the only *simple, practical* and *reliable* motorcycle speedometer ever made. Police departments of nearly every large city designate the Stewart as equipment for their motorcycles. Many motorcycle clubs throughout the world have declared it the standard instrument for club runs. In competitive touring and in racing it is recognized as the official speed and mileage recorder.

Mounted on the front extension spring or mudguard, directly before the rider, the Stewart is easily read. At night the rays of the headlight strike full on its face.

It is weather and trouble proof. The belts are of coiled steel piano wire. They cannot stretch in wet weather or shrink in dry. They automatically take up every road shock or vibration before it can possibly reach the instrument. They cannot jump out of the steel and fibre pulleys in which they run.

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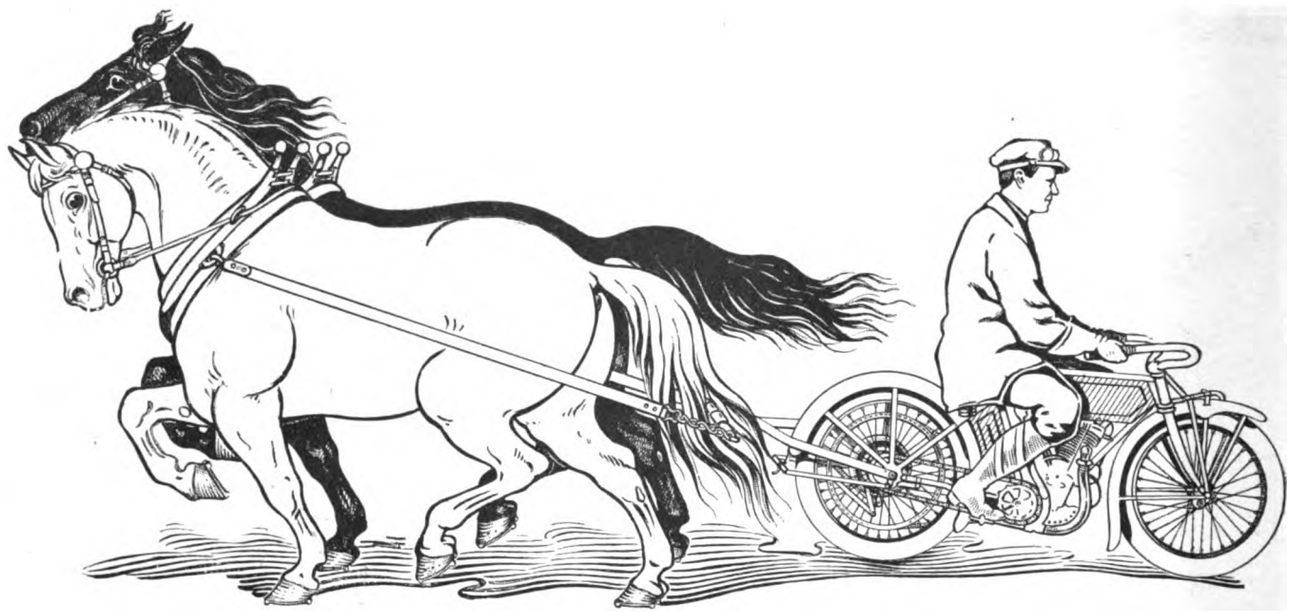

Here is a better brake than you ever expected to get

Do you suppose that the combined strength of these two heavy draught horses could hold and stop your machine?

Of course it could.

The New Departure Motorcycle Coaster Brake is even more powerful and gives you the same retarding effect at the brake drum as would the pulling of these horses against your motor and momentum.

This is not a fantastic statement, but a fact; mathematically correct and proven in practice.

This brake is the same design as that employed in an automobile and more than adequate to the requirements of the highest powered modern motorcycle.

Please bear in mind that this picture is not an extreme demonstration. The lightest rider can exert a back pedalling force of seventy-five pounds. This small effort is compounded thirty times by the ingenious, strong, simple leverage mechanism of the new New Departure—in emergency cases, the retarding power of the brake is equal to that of three or four horses.

The brake can be applied gradually or instantly, but always releases instantly, will work in oil, **will not bind, wind or lock.**

Write for literature fully illustrating and describing this wonderfully practical motorcycle coasting and braking device.

The New Departure Mfg. Co. - - - Bristol, Conn.

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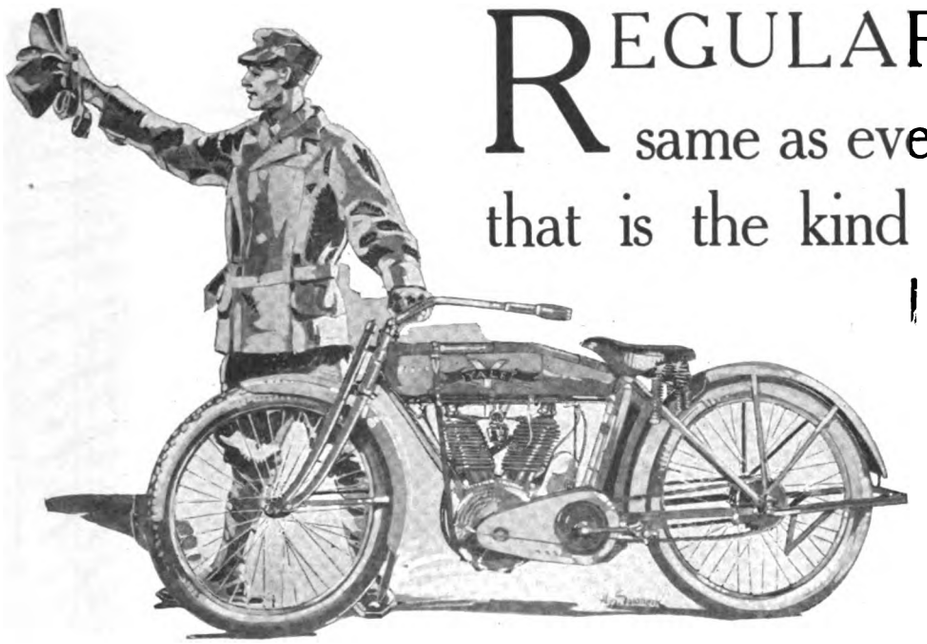
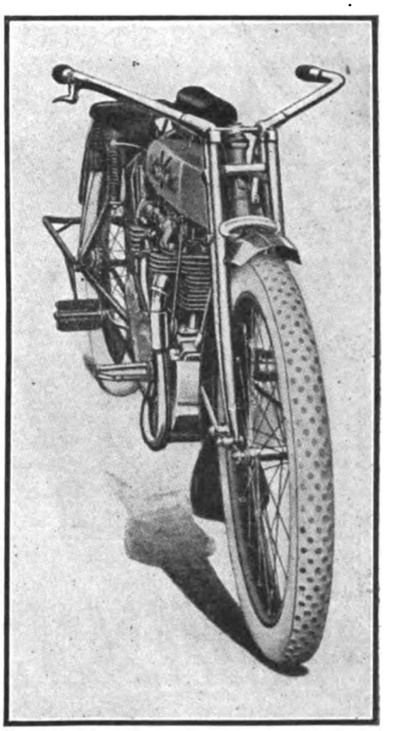
Just an Ordinary Yale



REGULAR stock Yales the same as every Yale dealer sells--that is the kind of machine that is winning so decisively in the big road contests this season, just as it won last year and years before. Every Yale has the ability that wins--"special" machines are not needed to bring victories, for the stock "Big Y" is built to succeed on the road, and it does it.

The annual Memorial Day 450-mile endurance contest of the New Jersey Club—the Yale has won every team contest held by this club for *four years.* Three Yales entered and two perfect scores in the Indiana 24-hour run, May 17-18—with only five perfect scores out of 32 other starters; a perfect score in the 530-mile three-day endurance grind at Los Angeles, May 30, 31, June 1—these are among the latest achievements that have made the "Big Y" the National Road Champion.



WITH the Yale you can always be among the winners. Our illustrated catalog tells why—send a postal and ask for it.

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SPLITDORF

"Always There"

"It has the punch"—commented one of the best known motorcyclists in the country, after an exhaustive test of the new SPLITDORF MAGNETO, and his important judgment bears out what we know to be a fact and what we want every motorcyclist in the country to know to be a fact.

SPLITDORF MAGNETOS "have the punch," never fear—the punch that'll shoot a hot, fat spark into your motor as slowly as you can pedal the machine, or at top racing speed;

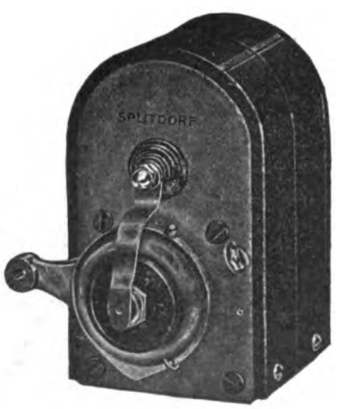
—"the punch" that'll make you master of the ignition situation under any call or stress of race or travel;

—"the punch" that'll "get you there" just as surely after thousands of miles going as on a boulevard or park jaunt;

—"the punch" that'll keep your motor purring merrily in the worst of road going, in rain and mud as well as in the blazing sunshine.

Oh, yes, SPLITDORF MAGNETOS have THE PUNCH to put poor ignition in the background for all time.

SPLITDORF MAGNETOS and the standard, reliable SPLITDORF COMMON SENSE PLUGS "are the goods."



Remember, all! "New ignition for old' is our slogan—we have a SPECIAL EXCHANGE proposition of the greatest interest to every owner of a gasoline motor who would save time and money. Write or call TODAY for particulars.

Splitdorf Electrical Co.

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NEWARK, N. J.

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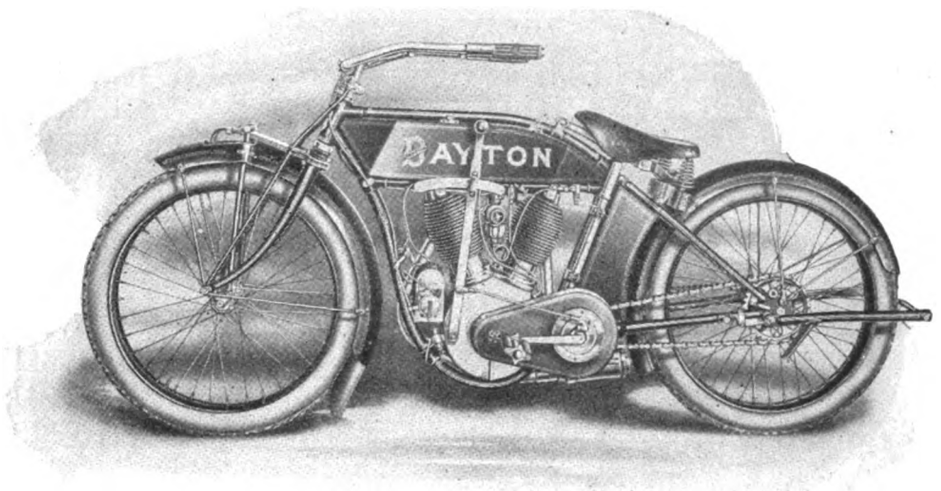
DAYTON



"Dayton" Means "Perfect Score"—Always

Invariably associated with the name "Dayton" is the thought "Perfect Score." It cannot help but be so, for the DAYTON'S invariably perfect performances in endurance runs, hill climbing tests, and various other trials have firmly welded its marvellous strength, power, reliability and endurance into the minds of the riding public.

Just By Way of Example

Take the two-state endurance run of the Maryland M. C. of Baltimore, Md., on May 30th. Through this gruelling road test, in which many machines came to grief, the Dayton team came unscathed, with a score of one thousand—perfect, as usual. Only one other team finished with a perfect score, out of a total of 90 starters. It's a habit with the Dayton. It would be a miracle with some other machines.

And Now-Mr. Dealer

We want an opportunity of putting our proposition before you in a complete form. We want to show you how Dayton publicity and Dayton perfection will aid you in establishing the leading motorcycle business in your locality. Write or wire for our proposition to-day.

Davis Sewing Machine Co.

Dayton, Ohio, U. S. A.

DAYTON

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Investigate the *Thor* Agency Now

DO NOT CONSIDER THE AGENCY FOR ANY OTHER MOTORCYCLE UNTIL YOU HAVE AT LEAST INVESTIGATED THE GENUINE QUALITY MACHINE, ***Thor.*** THE WISE MERCHANT IS NOW MAKING COMPARISON OF THE VARIOUS MAKES BUT MAKES HIS MISTAKE BY NOT INVESTIGATING THE POLICY AND RESPONSIBILITY OF THE FIRM HE INTENDS TO CONNECT WITH. NOW IS THE TIME TO DO THIS FOR NOT ONLY STANDARDIZING OF MACHINES WHICH IS ALREADY ESTABLISHED BUT THE STANDARDIZING OF BUSINESS METHODS MUST BE CONSIDERED. MERCHANTS WHO ARE ALIVE TO THE FUTURE, WHO CAN SELL A MACHINE WITH A REPUTATION OF HIGH QUALITY AND WISH TO DO BUSINESS WITH AN ESTABLISHED FIRM WHOSE PRODUCT IS ABOVE QUESTION. GET BUSY NOW SO AS TO GET AN EARLY START FOR THE SEASON OF 1913. NOW IS THE TIME. WRITE TODAY.

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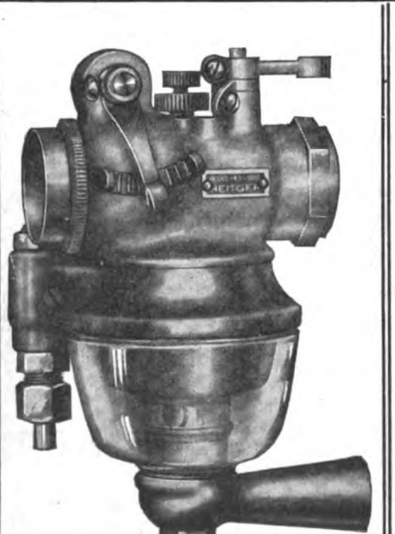
HEITGER MODEL K—1913

Made in ¾″ and 1″ pipe threads, and special threads for Spacke, Pope, H-D, Excelsior, Merkel, and Emblem, same list, ¾″, $10.00; 1″, $10.50. Where special fittings are needed, extra price. Has new air valve, no friction, or stems to wear, causing air leakage in low; air adjusted instantly from saddle, for starting, etc. Needs no priming in coldest weather. Furnished with glass or metal bowls, same price, the two being interchangeable.



HALF SIZE

Has new gasoline feed, two jets, one for low, one for high, with separate adjustments, giving minimum and maximum speeds. Owing to air valve action, etc., gives greatest possible speed to motor on minimum gasoline consumption. Light in weight, castings of aluminum, polished nickel plate.

Heitger Carbureter Co.

1129 Beecher St., INDIANAPOLIS, IND.

H. T. Roberts, Selling Agent,
538 S. Dearborn St., Chicago, Ill.

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The Masterpiece of Motorcycledom!

Special "Black Hawk" Features That Make It the One Best Motorcycle "Buy"

Free Engine Clutch on inside of Rear Hub—instead of sticking out on side of machine or on engine shaft—absolutely protected—lubricated while slipping, so that wear and tear on engine and machine are eliminated—wonderfully durable multiple steel disc type.

Steel Oil and Fuel Tank Built Integral with Frame.—This permits placing saddle low without sacrificing either strength or "the lines" of machine—makes the "balance" of the "Black Hawk" wonderfully perfect, practically as precise as that of a chronometer—and this balance is responsible for the remarkably little vibration of the "Black Hawk" even under full power and top speed.

Exclusive Sight Feed Automatic Oil Pump—with only one moving part—cannot clog—oil flow increases automatically as speed of machine increases, the flow stopping when engine stops.

Here is **the** last word in motorcycle manufacture—the finished product of the greatest geniuses that ever designed a motorcycle, the acknowledged masters of the craft. This is the machine bound to break all motorcycle sales records—for it is admitted by all to be two years ahead of any other motorcycle on the market.

Get Aboard the "Black Hawk" Agency "Bandwagon"

Shrewd motorcycle dealers everywhere are hastening to secure "Black Hawk" agencies. They keenly realize that a motorcycle of such remarkable superiority cannot fail to smash sales records. They want their share of the big "Black Hawk" profits.

Open territories are becoming scarce. Those desirous of tying up to the best of all motorcycles should act at once.

WRITE TODAY

BLACK HAWK MOTOR CO.
Dept. B **Rock Island, Ill.**

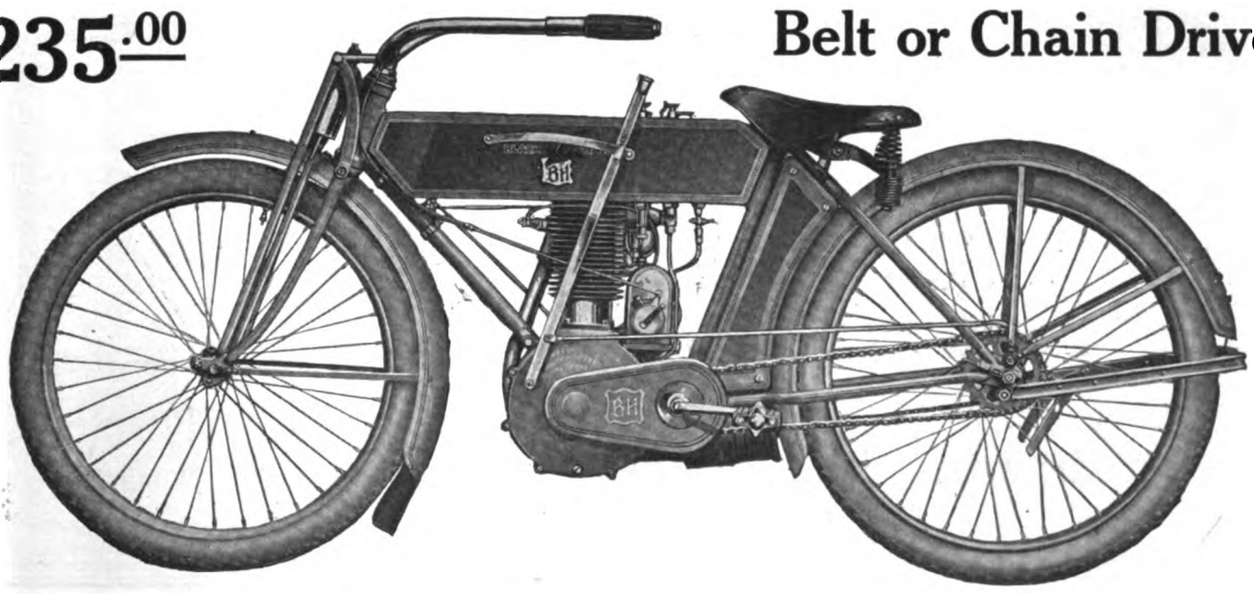
"Black Hawk" Betterments That Are Boosting Sales For Our Agents

New, Remarkably Efficient Muffler.—Tested for 18 long months before made a part of the "Black Hawk"—hardly any noise at all on all ordinary speeds, although it entails only 2 per cent. loss in power as against a 15 per cent. loss with other mufflers.

Quickly, Easily Removed and Repaired Tank Fittings.—All fittings, being put into tank by special compression method, can be easily removed and replaced on the road, in case of accident.

Spring Forks and Seat Posts that Cannot "Bottom."—Experts everywhere agree that the unique construction used in the "Black Hawk" positively prevents all chance of forks or seat posts "bottoming" or breaking, no matter how severe the jolt.

$235.00 **Belt or Chain Drive**



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STANDARD CANOE MODEL.

Price $65.00.

Immediate Delivery

ON ALL

REED and COMMERCIAL MODELS

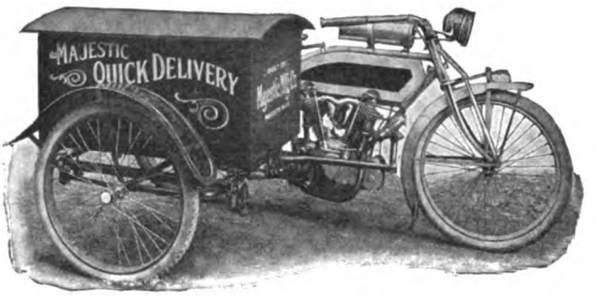
DE LUXE-CANOE FRONT

MR. DEALER

MAJESTIC SIDECARS

mean absolute satisfaction to your customer, less trouble to yourself and increased sales. Majestic Advertising Boosts First Sales. MAJESTIC QUALITY Insures a Permanent Demand.

MAJESTIC—"Most for Your Money"



Price $65.00.

Special Fittings for 1913 Indian

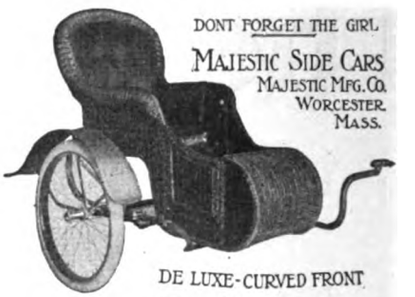
WRITE FOR SPECIFICATIONS ON

"THE WIND-SPLITTER"

A New Departure in Metal Body Construction.

The Majestic Manufacturing Co.

36 Southbridge St. WORCESTER, MASS.



DE LUXE-CURVED FRONT

Price $90.00.

The Majestic Mfg. Co.

ALSO MAKE

BI and MOTORCYCLING SPECIALTIES

OF FINEST QUALITY

SEE PAGE 71 THIS ISSUE

TRINITY MODEL

What's Your Particular Tire Complaint?

Punctures? Rim-cutting? Cracking of tire walls? Excessive wear on tread or walls? Only Continental-Erie tire users realize that these troubles are **not** to be borne with patience and resignation, as "necessary evils." The marvelously accurate methods of construction plus materials whose durability and quality have been proven by years of study, research and actual **road experience** makes for an absolute absence of tire troubles in

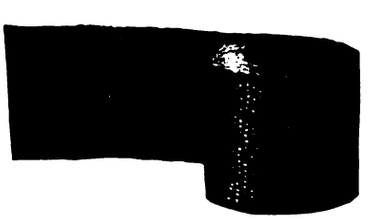
Continental-Erie Tires

"The Tires of Greater Service"

Continental-Erie Tires have no spectacular track-racing records to their credit, and we are proud of it. But the hundreds and thousands of brilliant endurance records, transcontinental runs and other real tire tests have invariably brought out the "greater service" of Continental-Erie Tires. "ASK THE JOBBER, HE KNOWS."

NON-SLIP-LAG

To bring your belt up to the maximum of its efficiency and keep it there, Continental-Erie Non-Slip-Lag is the thing. It increases the life of the belt, prevents its tearing, cracking or stretching. It eliminates all slippage. Order a roll today from your dealer.



Continental Rubber Works

ERIE, PA.

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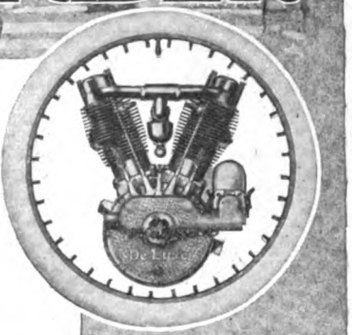
MR. MOTORCYCLE RIDER:



The joy of riding is enhanced when you ride a DE LUXE Motor equipped motorcycle.

Because there are four notable features of DE LUXE Motors:

SILENT CLEAN
FAST POWERFUL

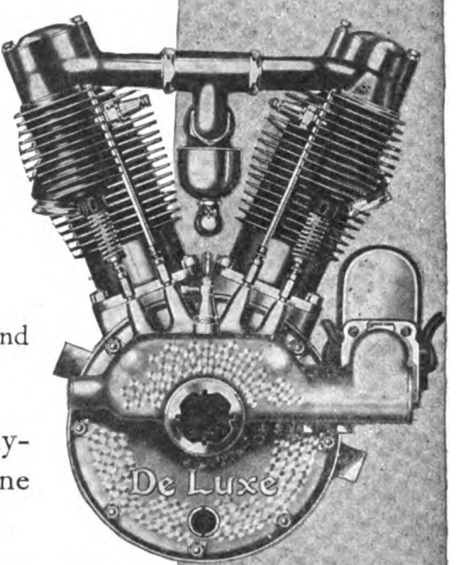
De Luxe Motors
The Heart of the Motorcycle

SO SILENT—that you almost forget that you have a motor running under you. It is like riding in a Pullman.

SO FAST—that you can pull away in an instant from any of your companions, and stay ahead of them.

SO CLEAN—that when you return from a run, your motor may be covered with gray dust, but will not look as if it had not been cleaned for a month.

SO POWERFUL—that you can climb the steepest hills and pull through the deepest sand, where others walk.



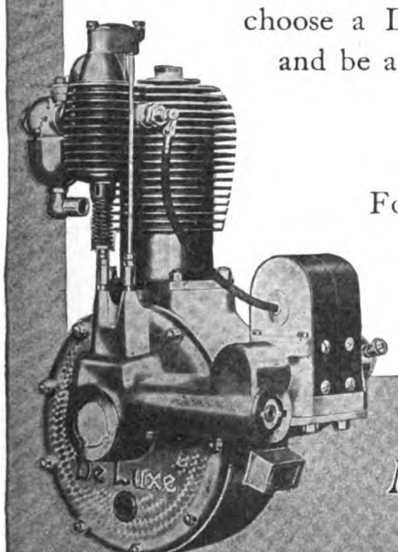
DE LUXE Motors have done more than anything else to elevate motorcycling to the high plane where no apology is necessary for it.

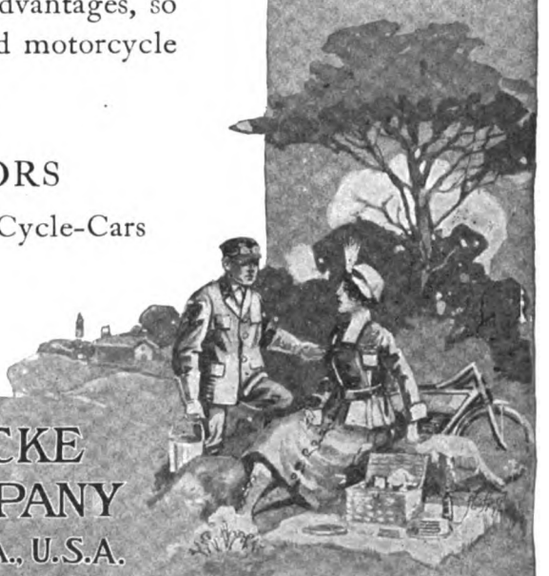
You cannot afford to be without these advantages, so choose a DE LUXE Motor equipped motorcycle and be a year ahead of the others.

DE LUXE MOTORS

For Motorcycles, Tri-Cars, Cycle-Cars

PATENTS APPLIED FOR





THE F. W. SPACKE MACHINE COMPANY
INDIANAPOLIS, INDIANA., U.S.A.

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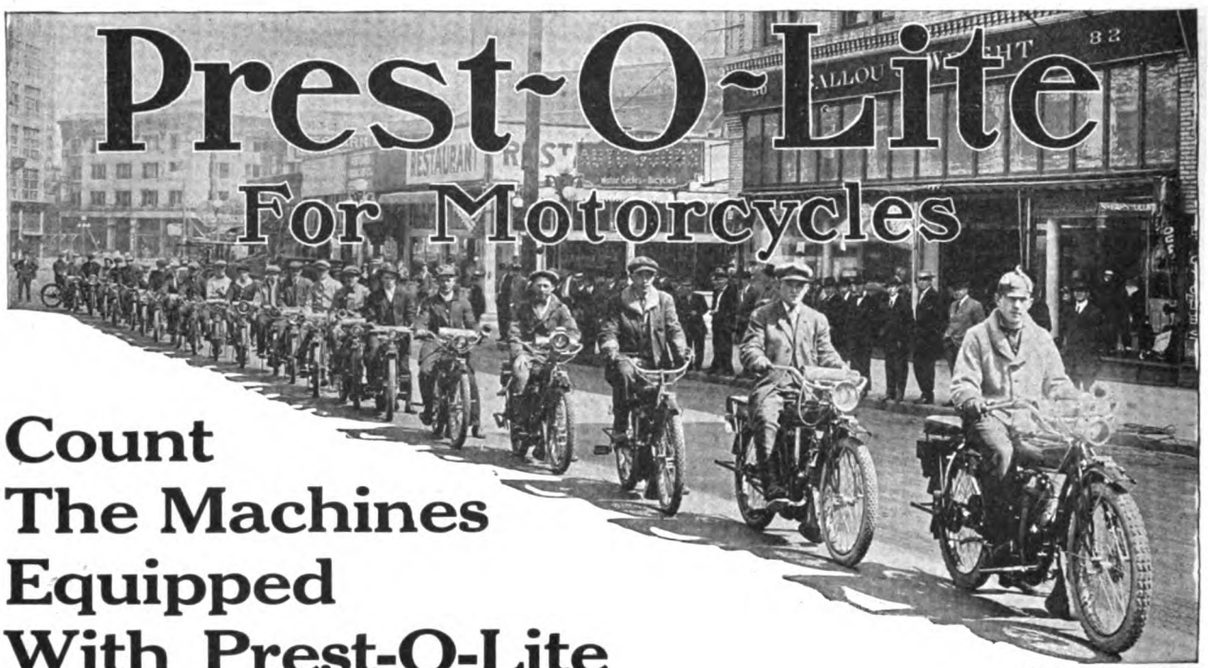
Prest-O-Lite
For Motorcycles



Count The Machines Equipped With Prest-O-Lite

Photograph courtesy Ballou & Wright, Portland, Oregon.

Here is a photograph of the Indian Riders' Club of Portland, Oregon. Their lighting equipment shows they are experienced motorcyclists. They know dependable light is necessary for riding at night. They have discarded the unsafe, unreliable systems for Prest-O-Lite. Prest-O-Lite is the mark of experience on the motorcycle.

Don't Depend Upon Failures or Experiments

The first and greatest features of lighting are reliability and economy. Before you consider buying *any* system of lighting for your machine get our free book—"Light on the Lighting Problem."

The real facts—proven by experience—show that no motor-driven or battery system can give light equal to Prest-O-Lite even at far greater cost.

Before you experiment—get the facts.

Write for the book today.

The Price, $10

Don't consider the price you pay for Prest-O-Lite as money spent—but as an investment. Remember that a genuine Prest-O-Lite never becomes second hand. It is in such universal use and demand that it can always be sold for about what you pay for it.

30 Days' Trial Free

We are so sure that you will find Prest-O-Lite indispensable that we make you this proposition.

Put a motorcycle Prest-O-Lite on your machine. Use it for thirty days and nights. Test it out on every kind of road, for city driving and country road work. Then if you find that you can do without it, the test won't cost you a cent. Can you afford not to make this trial?

To Dealers:

There are five times as many motorcycle Prest-O-Lites in use today as there was one year ago. Are you getting your share of this business?

The Prest-O-Lite Co.

Speedway, Indianapolis, Indiana

Canadian Gen. Offices and Factory, Merritton, Ont.

Exchange Agencies Everywhere

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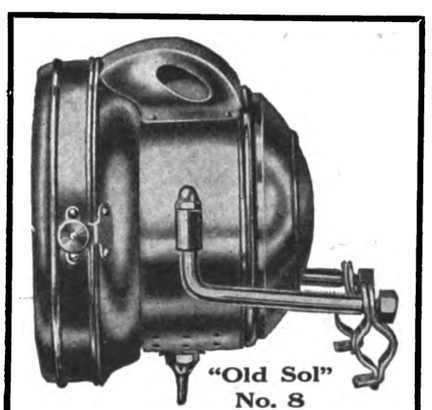
PRICE $4.25

Five "Good Reasons" for "Old Sol" Supremacy

PRICE $5.50

The tremendous popularity enjoyed by the "Old Sol" line wherever lamps are used, can be traced directly to the remarkable efficiency, perfection of workmanship and durability of the five leading models shown here. They have **made** the priceless reputation of "Old Sol" lamps—the other models have **maintained** it. Designed, tested and **perfected** by experienced riders—small wonder that each "Old Sol" lamp leaving our factory gives supreme satisfaction.

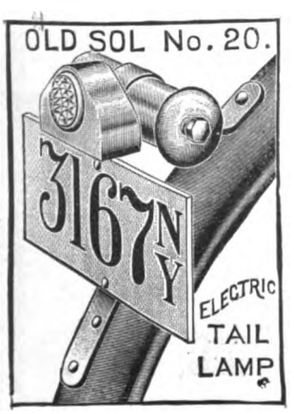
The head and fount of the entire "Old Sol" Line is No. 8—"Daddy." It is impossible to conceive of a gas lamp for motorcycles being more powerful in its light penetration, more handsome in appearance, more perfect in construction or more durable in service than "Daddy Old Sol." And it **is** impossible for us, with all our years of lamp manufacturing experience, to build a better gas lamp, from every viewpoint.



PRICE $6.50

Next in order of size and light penetration comes "Old Sol" No. 17, with a light penetration of 1,000 candlepower, 500 candlepower less than that of "Daddy." No. 17 is another powerful bulwark of "Old Sol" prestige. Its oversize lens, which is a feature of all "Old Sol" lamps, affords a remarkable flood of light for its size.

Then we have "Old Sol" Nos. 1 and 2, differing only in bracket arrangement, and remarkable for their compact, long-lived, consistent lighting service. For the rider who prefers a combined generator and lamp, "Old Sol" Nos. 3 and 4 (duplicates except for their brackets), give splendid satisfaction.

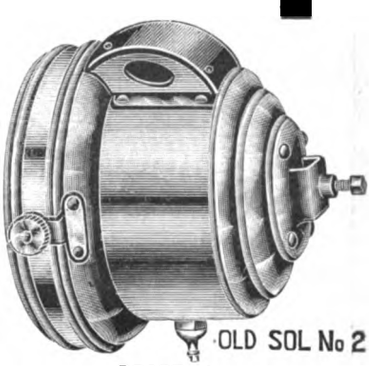


PRICE $3.00

Dealers—you cannot help but sense the pressing demand for "Old Sol" Lamps. The variety of models, the absolute maintenance of price, the wide range of selection afforded in the "Old Sol" line gives you unexampled opportunities for rapid-fire sales. Get our live Lamp Book. It's full of light.

HAWTHORNE MFG. CO., Inc.

37 Spruce Street, Bridgeport, Conn., U. S. A.



PRICE $4.25

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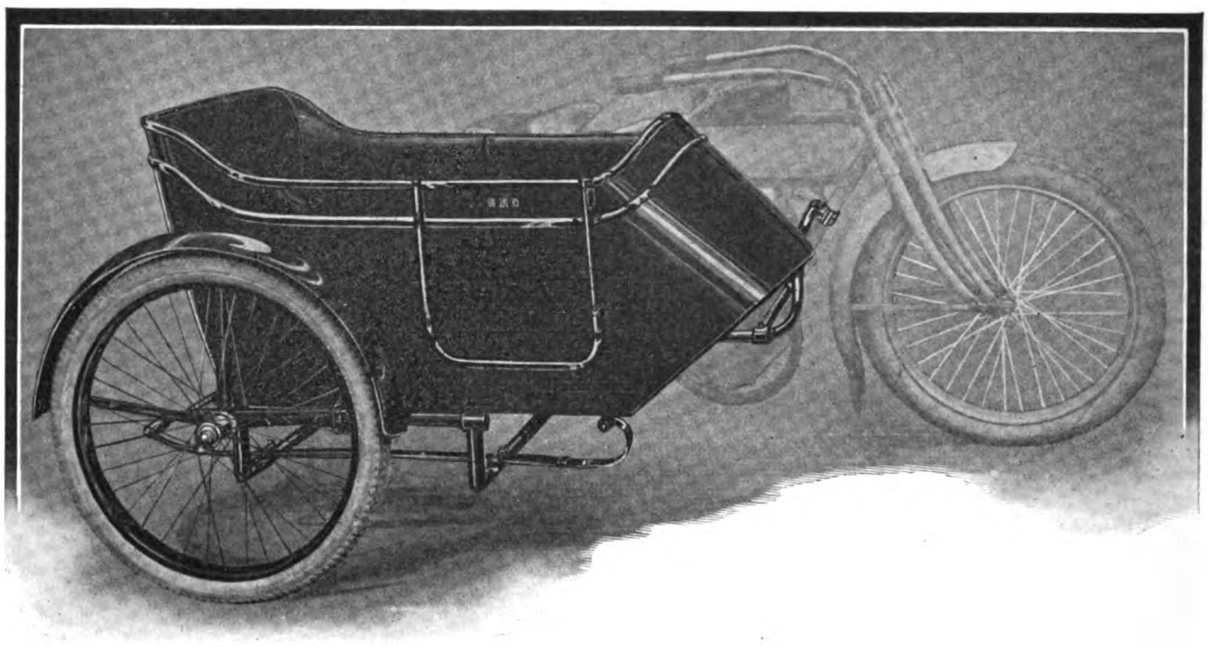
The New Autocrat $95.00



The Latest and Greatest Sidecar Sensation of the Year

AUTOCRAT

With Steel Body . . $95.00
With Aluminum Body $125.00

FOLDING CHILD'S SEAT $2.00

STORM APRON $3.00

Here is positively the classiest, raciest, strongest, lightest and best built sidecar in the world! That's saying a lot. But we can prove it.

This latest and greatest "AUTOCRAT" Model is of the highest grade automobile construction possible. It is built and finished with as great skill and care as a $6,000 automobile.

We're sidecar specialists. We make nothing else in the largest sidecar plant in America.

With an AUTOCRAT fitted with a child's seat and driven by a good motorcycle (a single will do—for the AUTOCRAT is remarkably light), you have a three-passenger combination, the equal, if not the superior of any automobile on the market. Your luggage goes under the seat.

Cars are enameled to match your motorcycle and beautifully upholstered in black. All tubing seamless steel—cold drawn. All fittings steel—weight and appearance of body the same, steel or aluminum. Attachments for every motorcycle. Special attachments for Indian, Merkel and Henderson.

Immediate Delivery

From Stock

Dealers—Your business instinct should tell you that our proposition is a good one to investigate. Do it today.

GREYHOUND MOTOR CO., 1440 Niagara St., Buffalo, N. Y.

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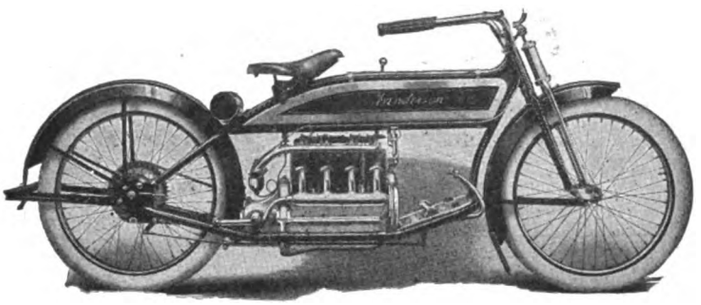
HENDERSON



4 CYLINDERS, 8 H. P., CHAIN DRIVE, 3-INCH TIRES **$325**

Tandem Attachment Complete, $25.

Four cylinders, smooth power; rides with no jerk or jar

The Henderson rider feels practically no engine vibration, and far less road shock than the average motorcycle sets up, because his is a four cylinder machine.

These advantages—and every motorcycle rider knows how important they are—come from the type of motor, the longer wheelbase, the lower center of gravity and the larger tires that distinguish the Henderson from the ordinary.

With four cylinders, the power development is two to four times more smooth and steady than with two cylinders or one.

It is more flexible, too, and the Henderson can be throttled to 5 miles an hour without releasing the clutch.

Hung low in the frame, the motor's weight steadies the machine; and the rider, placed well forward of the rear wheel, is comfortable on any road.

His feet rest in a natural position, his legs forward of the motor, instead of sprawled and cramped on pedals.

The Henderson owes its national popularity to these superiorities, which are well worth your investigation. Write for the catalog.

Henderson Motorcycle Co., 1158 Cass Avenue, Detroit, Mich.

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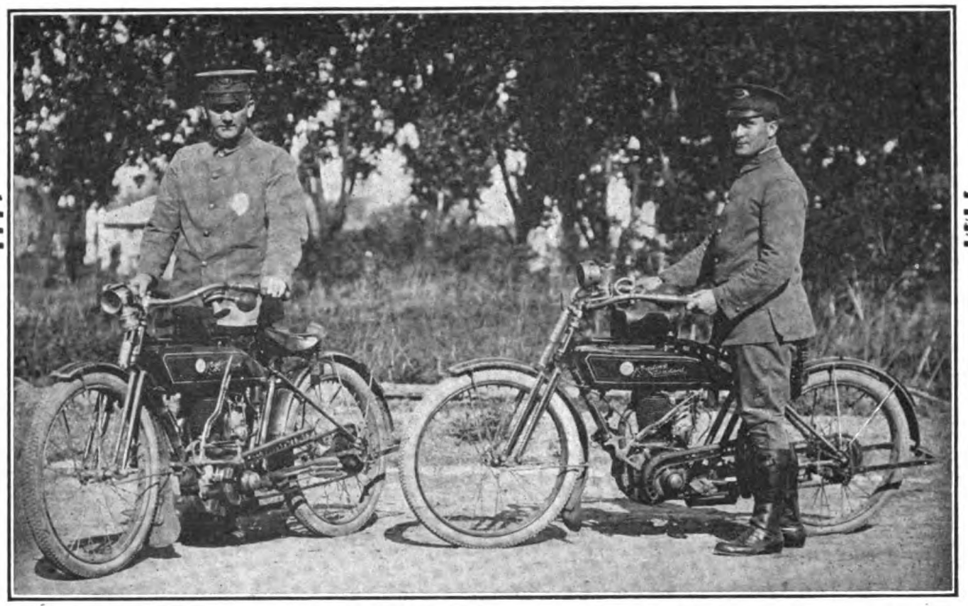


The R-S Guards the Nation's President

Models—

Twin, Chain Drive
$275

Tourist, Belt or Chain
$225

Service, Belt Drive
$200

On his automobile trips, President Wilson is invariably closely trailed by two motorcycle policemen whose duty it is to keep a watchful eye upon the nation's head to see that he comes to no harm. Obviously, their machines must be proof against any and all troubles. They must be fast—they must be silent. They must be clean-cut and graceful in appearance.

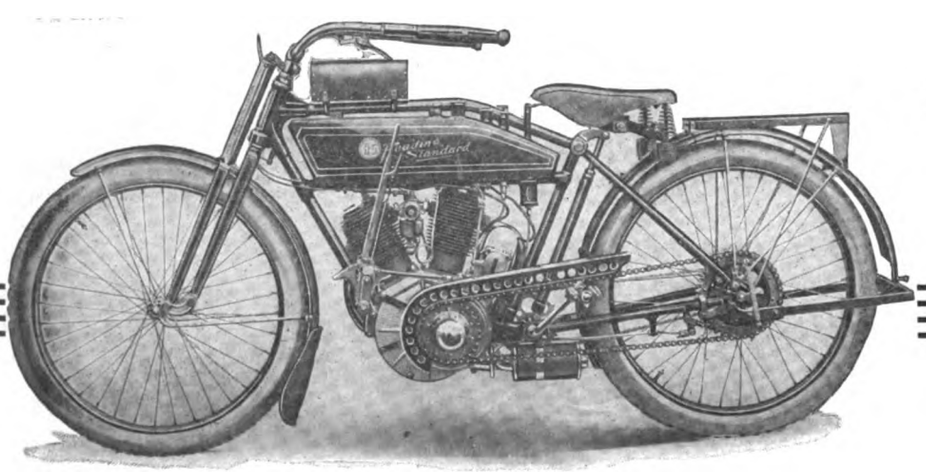
Is there any wonder that the R-S was chosen? What greater duty, what more responsible service can a motorcycle be called upon to perform than to guarding the President of the United States? Do you think the Washington Police authorities, who, by the way, use six Reading-Standards—chose the R-S haphazardly? Don't you think exhaustive experiments, merciless tests and keen investigations eliminated all other contenders for this high honor and left the R-S triumphant? That's understood.

Get our Art Catalog. It tells the rest of the story—the WHY of it.

Bulletin

On Decoration Day, at the Empire State Track at Yonkers, N. Y., an R-S Twin, John Cronan riding, won the ten mile amateur Race against six others. Time, 10:37. Next best time, 10:39⅘. Chalk up another for the R-S.

READING-STANDARD COMPANY,



306-340 Water Street, Reading, Pa.

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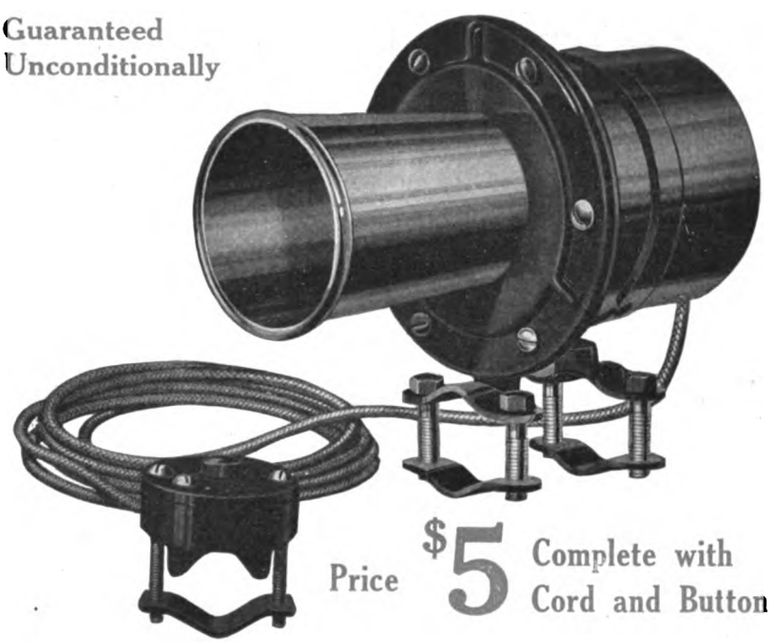
Elyria-Dean
TRADE MARK

The "MAXO" Horn—

The Effective Warning

Guaranteed
Unconditionally



Price $5 Complete with Cord and Button

The "MAXO" Electric Horn

The Only Guaranteed Electric Horn Built Especially for Motorcycles

The very appearance of the "Maxo," with its handsome black baked enamel horn and button, is an indication of its efficiency as a warning signal.

The cheerful, ringing tones of the "Maxo" horn give a **fair** warning of your approach. It creates no startled confusion, it does not wake to blind terror—it calmly, cheerfully and effectively announces your coming, and **clears the road without fail.**

The "Maxo" horn is the only electric motorcycle horn that is **guaranteed unconditionally** to give perfect service.

The "Maxo" horn is very inexpensive to operate. Three or four dry cells give from four to six months' service.

The "Maxo" horn can be installed on any machine in any position, as it is equipped with universal mounting brackets.

If you want a distinctive, dignified, effective, cheerful and handsome horn that is distinctly a 1913 product, order the "Maxo" today from your dealer, or if he does not **yet** handle it—from us direct.

THE DEAN ELECTRIC COMPANY

603 Taylor Street Elyria, Ohio, U. S. A.

KANSAS CITY **SAN FRANCISCO**

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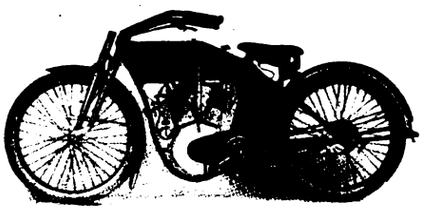
EMBLEM

STURDY STRENGTH—SILENT SPEED

The Emblem is impressive in appearance, in performance and in its reputation. It has more road records to its credit than any other motorcycle, American or foreign. These records have been achieved by strictly stock models; no special preparations were made—nothing was done to make the record-breaking machine any different than the EMBLEM **you** can buy.



It is up to you to decide whether the Emblem with its innumerable road triumphs is entitled to your careful consideration.

Our Catalog clinches our arguments.
Get it to-day.

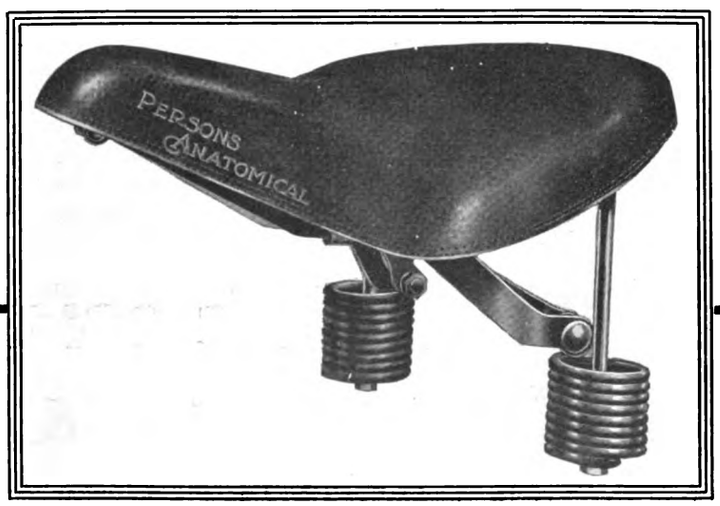
Emblem Mfg. Co.
Angola, Erie Co., New York

Investigate the Difference!

between "Persons Pan Dandy" and the others.
IT FITS "ALL MACHINES."
Without "Persons Pan Dandy" saddle comfort there can be no pleasure.

Send for booklet— "Persons Saddles vs. The Field."

Persons Mfg. Co.



Worcester Mass.

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Simmons at Full Speed | Earl Armstrong | Armstrong Leading | Simmons Who Made Mile In 51 Sec. Flat

The Excelsior Reels Off the Miles While Others Stop to Catch Their Breath

The Excelsior is the fastest stock Motorcycle in the world. It has a certain "snap" and "punch" that just carries its riders in perfect safety to easy victory.

The best part of it all is that the EXCELSIOR **"always makes good."** You can depend upon that **absolutely and positively.** No other machine has a show when the Giant-powered "Ex" is on the entries. We back up our statements with pictorial proof and incontrovertible facts. The records below are of the races held at Portland, Ore. They are more than cut and dried figures. Please note these interesting facts:

In Race No. 6 the winning "Ex" was a special stripped stock. Motor made 5 miles in 4:40 from a standing start.

The fastest mile was reeled off in 51 seconds flat. This machine was used by Mr. L. C. Rose, president of the Excelsior Motorcycle Co., Inc., of Portland, Oregon, for 17,000 miles, and has never received the slightest bit of repairs outside of two new piston rings two days before the race.

The 5-mile professional 4 H. P. ported race was won by Mr. Simmons, a 180-pound man, on an "Ex" which ran 68,000 miles in actual service for the Portland R. L. & Power Company. And so it goes. Behind each "individual Ex" victory is a bit of interesting history.

Six "FIRSTS," One "SECOND" Out of Seven Races

THREE MILES, 61:00, PORTED	EXCELSIOR FIRST, SECOND AND THIRD.	TIME, 2:38½
FIVE MILES, 30:50, PORTED	EXCELSIOR FIRST.	TIME, 5:00
FIVE MILES, 61:00, STRIPPED STOCK	EXCELSIOR FIRST.	TIME, 4:46
FOUR MILES, 30:50, STRIPPED STOCK	EXCELSIOR FIRST.	TIME, 4:18
FIVE MILES, 61:00, STOCK	EXCELSIOR FIRST AND SECOND.	TIME, 4:40
FIVE MILES, 30:50, PORTED	EXCELSIOR SECOND.	TIME, 5:07
THREE MILES, 61:00, PORTED	EXCELSIOR FIRST AND THIRD.	TIME, 2:34

Something for Excelsior Riders to be Proud of

Every Excelsior owner will become jubilant over the above great records. And why not? Isn't it a fine thing to ride a machine that has the reputation for speed, class and endurance? Excelsior popularity is becoming stronger and stronger every day. To be in the front rank you must ride an Excelsior. Ask us or see the Excelsior Dealer.

Excelsior Motor Manufacturing & Supply Co.

Offices and Factory 22nd and Union Streets, Chicago

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You Save 25 Cents

On Every Dollar

By Using

Our Catalog

Of Standard Motorcycle Accessories and Equipment.

IT'S Complete, Handsome, Up-To-Date, Indispensable, AND a Big Economizer.

REMEMBER THIS

We list in our catalog only quality goods, the standard output of well-known manufacturers. No cheap substitutes.

We guarantee **everything** to be just as represented.

We mail the same day we receive your order

And

WE SAVE YOU 25 CENTS ON EVERY DOLLAR.

Just write "Send me your catalog," and your name and address, on a postal addressed to us. The catalog you will get will surprise you. You will keep it. You will use it when buying accessories, and you will be glad we have given you an opportunity to buy the best—the goods you know about—at prices which will astonish you. Write us now.

Motorcycle Co-Operative Company

671-673 Woodward Avenue, Detroit, Mich.

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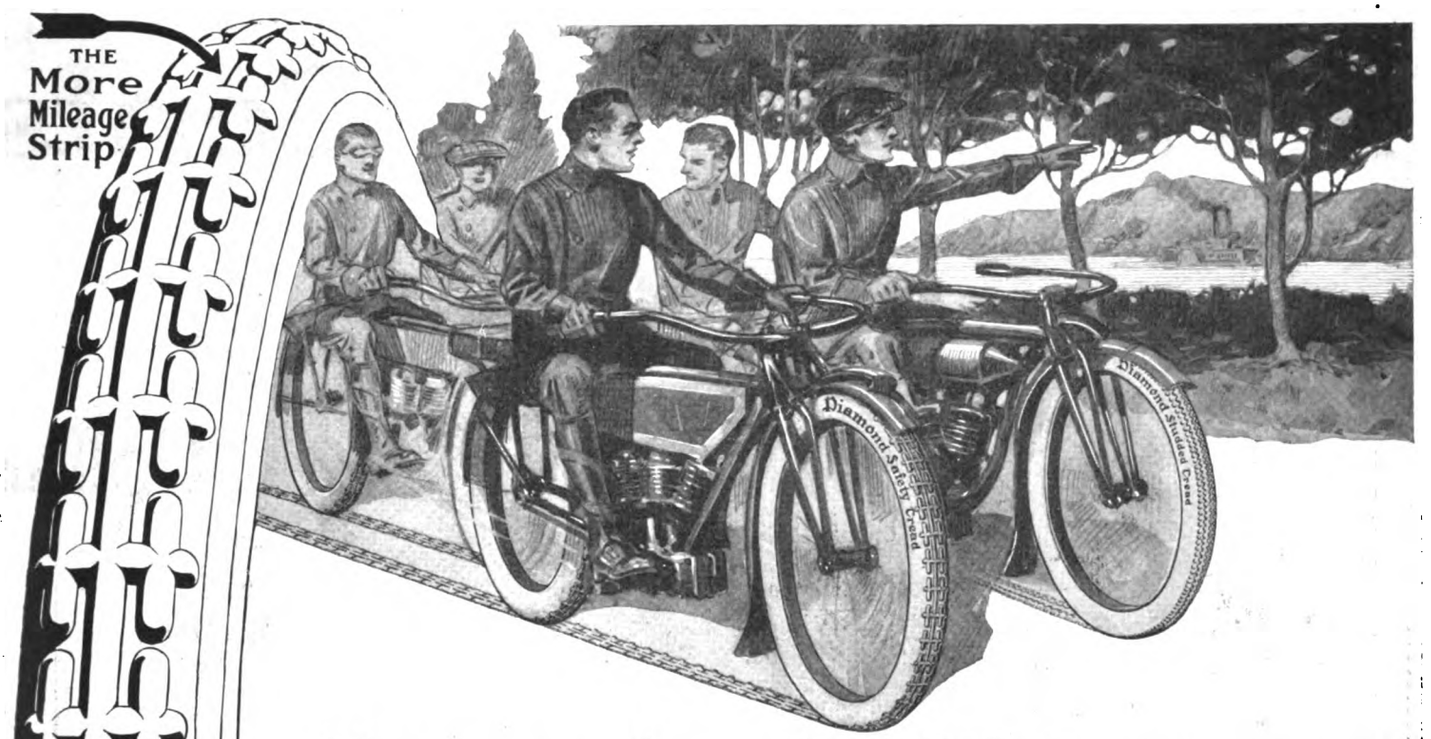

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You won't have to "drop out" if you ride on

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—made of Vitalized Rubber—with Perfect 3-Point Rim Contact

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The Diamond Safety Tread Tire is the famous Diamond Automobile Tire adapted for Motorcycles. It won't slip—won't slide—won't skid—it *grips* and bites the pavement—it gives you sure control in every emergency and a heaping measure of mileage.

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The Diamond Studded Tread Tire is also a favorite with tire-wise riders. The Studs are large, clear-cut and a part of the tread. They will not chip or break off, they are tough, road-resisting and real ground-grippers. The "More Mileage Strip" of the Safety Tread tire is another exclusive Diamond feature that should appeal to the motorcyclist.

And you get the "More Mileage" Strip on both the Safety and Studded Treads

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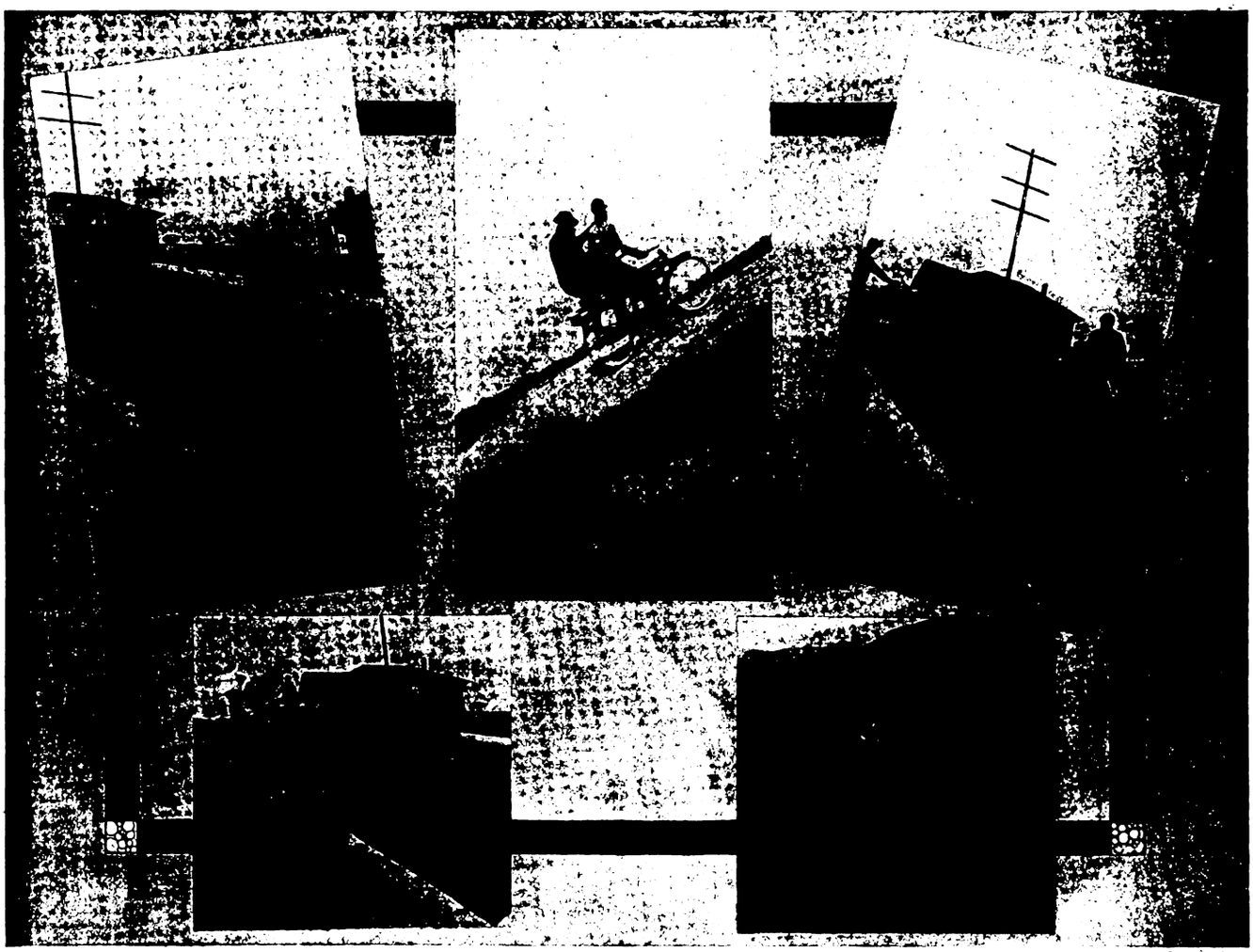

The Most Powerful Hill Climber in the World

Photographs shown above prove our emphatic declaration that the 1913 Flying Merkel has more power than any other motorcycle made.

In the upper left hand corner some idea of the steepness of the hill can be shown, the incline being so great that the rider was afraid to ride down.

In the center picture the Flying Merkel is shown on the steepest part of the hill (grade 37%). The Flying Merkel was the only machine able to carry another passenger all the way to the top.

The picture in the right hand corner shows one rider of a different make machine stalled and another rider about to stall.

The lower left hand picture shows a Merkel rider just going over the top of the hill while the rider of another machine, which stalled, looks on in amazement.

The lower right hand picture shows a 7 H. P. Merkel climbing a 25% grade hill pulling a tandem.

These photographs were taken at a recent Sunday run of the Los Angeles Motorcycle Club.

THE FLYING MERKEL

just last week won the big hill climb at Toronto. The 1913 Flying Merkel with sidecar attached was compelled to go against every well known make of American, and a number of British machines. The most remarkable part of it is that the Merkel used the regular stock gear, while other machines were geared low, especially for this climb.

The Miami Cycle & Mfg. Co.
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MIDDLETOWN, OHIO
MEMBER M.M.A.

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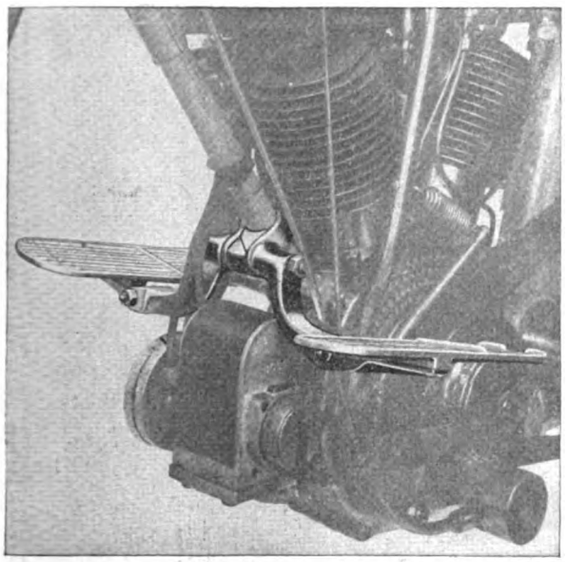
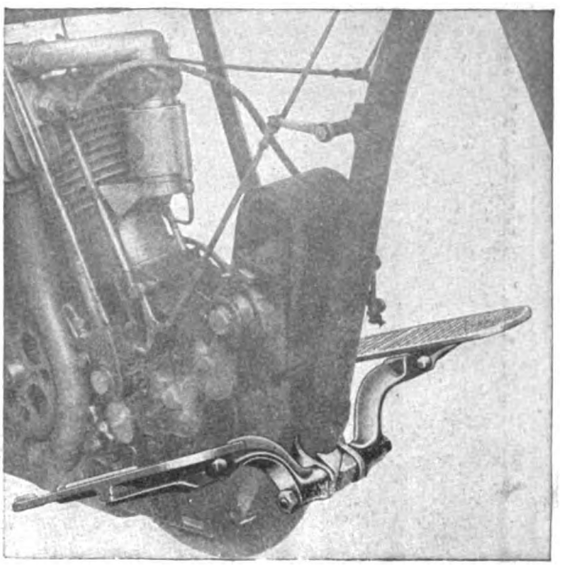
1914 Motorcycle Necessities



ATTACHED TO THE EXCELSIOR.

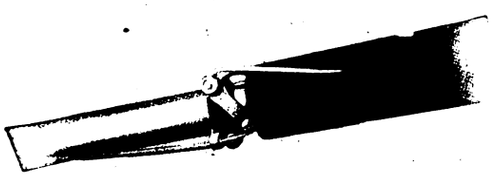
These Foot Rests add Comfort and Elegance to the machine.



ATTACHED TO THE INDIAN.

Easily applied. Will fit any make of motorcycle. Price $5.00.

The Crary Motor Speeder and Gasoline Saver



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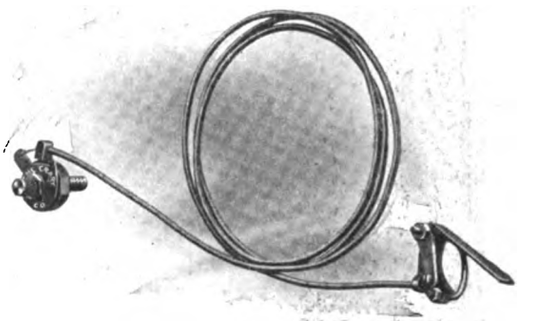
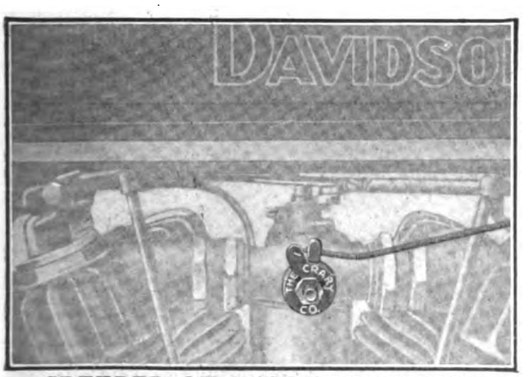
Makes the motor run faster, cleaner, smoother and cooler.



SHOWING COMPLETE SPEEDER.

Cuts down gasoline expense 20%. No trouble to install on any machine.

Price $2.50



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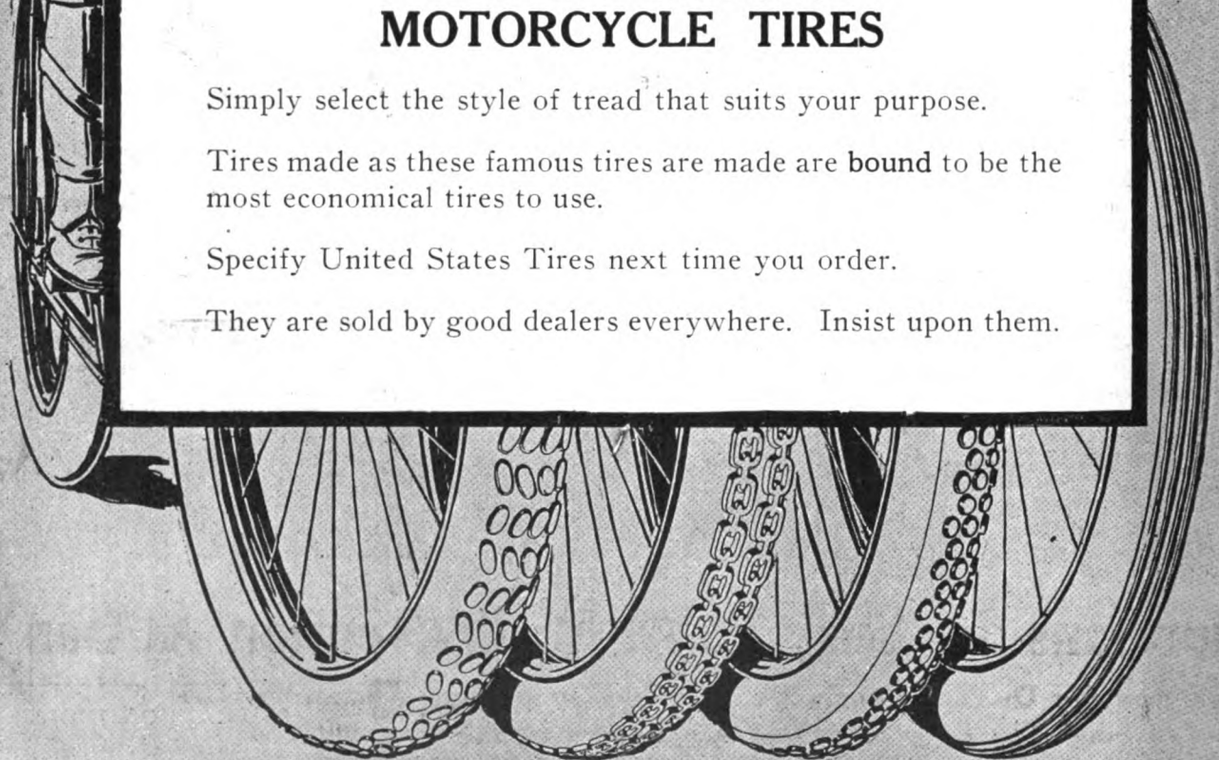
UNITED STATES MOTORCYCLE TIRES

Simply select the style of tread that suits your purpose.

Tires made as these famous tires are made are **bound** to be the most economical tires to use.

Specify United States Tires next time you order.

They are sold by good dealers everywhere. Insist upon them.



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MOTORCYCLE ILLUSTRATED

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NEW YORK CITY

THURSDAY, JUNE 26, 1913

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Sunset Ramblers Warmly Welcomed All Along Route

Los Angeles Squad Simmered Down to Thirty-Three Starters, but Fine Ten-Day Program Went Through Just the Same—Banquets, Receptions and Races Among the Features—How Divisions Were Made Up

SAN JOSE, CAL., June 22.—Quite a few riders who had counted upon making the Sunset Ramble with the Los Angeles Motorcycle Club found it necessary to change their plans at the eleventh hour for various reasons, and scores of others withdrew in the belief that their machines would not be able to climb some of the rather tortuous grades on the route. As a result only thirty-three enthusiasts pulled out of Los Angeles for the ten-day journey on June 16, but this squad made the most of the trip to San Jose. This city gave the Ramblers a warm welcome.

The reception given the squad in San Jose was a very pleasant climax to a series of entertainment programs in honor of the tourists all along the route. Special arrangements were made to greet the travelers in every town of note at which they touched, and at several points there were races to enliven things.

Although the number of Ramblers was smaller than had been expected, the Los Angeles Club proceeded with its plans with as much enthusiasm as if there had been a thousand riders in the party, and on all sides there were congratulations upon the manner in which the project was arranged and carried through.

Charles Fuller Gates, who had made the pathfinding trip for the Ramble, acted as tourmaster, with Charles E. Wride as his hustling assistant. There were five divisions, three for motorcycles exclusively, one for automobiles and the last for the trucks carrying supplies and equipment. The first division was made up of tandems, as follows: Captain N. W. Kimball (L. A. M. C.) and wife, on two-speed Indian 7; A. H. Longley, Jr., and wife, on two-speed Indian 7; W. T. Ranft and wife, on two-speed Indian 7; Fred Everett and lady, on two-speed Indian 7; P. C. Taylor and wife (Bakersfield), Thor 7. Mrs. Daisy M. Meyers and Arthur E. Honor, mounting 2¾ Indian singles, rode with the tandemites to round out this division.

The second division, made up of single-cylinder machines, was as follows: Captain F. A. Martin (L. A. M. C.), on Harley-Davidson 4; R. M. Allen, Indian 4; A. J. Fallandry, Harley-Davidson 4; Edward Peterson, Flanders 4; L. R. Smoot, Minneapolis 5.

The third division was made up of twin-cylinder machines, ridden solo, as follows: Captain Charles Wride; A. J. Menegay, two-speed Indian 7; O. B. Bray, 8 h. M. M.; M. A. Bastrup, 10 h. Monarch; Walter G. Hill, Indian 7; F. L. Holland, Thor 7; Leo Owen (Pasadena), two-speed Indian 7; A. L. Tucker, Indian 7; C. Smith, Indian 7; J. H. Shafer, Thor 7; Alfred LeRoy, two-speed Indian 7 and sidecar. LeRoy has lost both legs and drives from his sidecar.

The automobile division included several cars and was captained by Charles C. Alford, who was accompanied by Mrs. Alford. Others in this division were Mrs. Paul Derkum, Mrs. Leo Owen and L. J. Berger. In the final division were the official baggage truck and the United States tire truck. The official truck was in trouble much of the time and fell behind the riders on the run to San Jose, but the United States tire squad was up with the divisions and the crew rendered valuable assistance at many points.

The itinerary was as follows: June 16, Los Angeles to Santa Barbara, 104 miles—noon stop at Ventura; June 17, Santa Barbara to Pizmo Beach, 103 miles—noon stop at Lompoc; June 18, Pizmo to King City, 83 miles—noon stop at Paso Robles; June 19, King City to Santa Cruz, 89 miles—noon stop at Watsonville; June 20, Santa Cruz to San Jose, 69 miles—noon stop at Gilroy; June 21-22, in San Jose at F. A. M. State convention and on side trips; June 23, San Jose to Monterey, 82 miles—noon stop at San Juan Bautiste; June 24, Monterey to Paso Robles, 121 miles—noon stop at Soledad; June 25, Paso Robles to Santa Barbara, 146 miles—noon stop at Santa Maria; June 26, Santa Barbara to Los Angeles, 104 miles—noon stop at Ventura.

There were banquets for the Ramblers at Santa Barbara, Lompoc, Pizmo, King City, Santa Cruz, San Jose, San Juan, Monterey and Alum Rock, and in addition there were balls at Pizmo and San Jose.

In their ten-day journey the tourists crossed the following grades or passes: Cahuenga (Hollywood); Calabasas, Conejo, Gaviota, San Julian, Purissima, Cuesta, Chittenden, Dumbarton and Foxin Canyon. These stretches imposed severe tests, but the machines behaved finely and the lady riders were the last to complain. On the second and third days there was considerable head wind, but despite this and the fact that several mountain passes and a number of fords had to be crossed, the party made excellent progress throughout.

Californians In Busy F. A. M. Convention At San Jose

State Commissioner Owen is Retained, L. H. Rolofson Becomes Secretary and Dr. C. H. Lashlee Continues as State Referee—Committees Are Appointed and C. F. Pixley is Chosen as Director

SAN JOSE, June 22.—There was plenty of enthusiasm as the riders and delegates, assembled in this city, gathered in the Chamber of Commerce headquarters this evening for the first annual convention of the State F. A. M. organization. President Pogue, of the local club, acted as temporary chairman of the convention and Charles Fuller Gates, who was in the city as tourmaster of the Sunset Ramble, was elected permanent chairman. L. J. Berger was made secretary. Contests over credentials lasted for some time, Delegates Sorenson and Berger arguing that the proxy votes should be thrown out. This would have given full control to the San Jose club, and other repre-

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sentatives contended that this would not be fair to other districts in the state.

An appeal to the chair was lost and the proxy report of the credentials committee showed 256 members represented. At midnight State Commissioner Leo Owen, of Pasadena, had made his report and had been re-elected as head of the state body. The convention then adjourned to Sunday afternoon, when further business was taken up at the Alum Rock picnic. The Sunday session was a busy one. The San Jose club decided to vote full strength by delegates, instead of by individuals. L. H. Rolofson, secretary of the San Jose M. C., was elected secretary of the state organization and Dr. Claude H. Lashlee, of Redlands, was retained as state referee. It was decided that a State Constitution Committee of three be appointed by the State Commissioner, their recommendations to be submitted to a mail vote.

The resolution committee, composed of Delegates Powers, Kimball and Pogue, reported resolutions from the Western Federation of Motorcyclists relative to the proposed union with the F. A. M. at the Denver convention. Delegate Pixley, of Sacramento, moved that the resolutions be forwarded to the F. A. M. national assembly with the request that they be acted upon. A resolution requesting the Board of Supervisors of Santa Clara County to remove the speed restrictions to permit of the proposed automobile race on July 4 was adopted.

It was decided that the executive committee of the state organization shall consist of the State Commissioner, the State Secretary and the State Referee. The State Commissioner will be called upon to give a bond based upon the maximum funds to be handled. Plans were outlined for the taking of a mail vote upon all matters of importance, and it was the sense of the convention that the recall of state officials might be exercised if desired.

The annual convention for 1914 will be held not later than July 10. One hundred signatures will be required to nominate a town and a majority of fifty in the mail vote will be necessary to determine the scene of the assembly. The State Commissioner was authorized to appoint a publicity committee, of which he will act as chairman; a legislative committee, with C. F. Pixley as chairman; a committee on tours and hotels, with Paul Derkum as chairman, and a committee on roads. The convention passed resolutions calling for the immediate appointment of C. F. Pixley as director for California, so that he can attend the Denver assembly of the F. A. M. and aid in bringing about a compromise with the W. F. M. It was the sense of the convention that the resignation of Walter Collins as a national director be asked for.

President Hodges, of the Western Federation of Motorcyclists, and other prominent members of this organization attended the convention as spectators and later expressed the opinion that they would like to effect a compromise if possible. The convention resulted in better feeling on all sides. After the session at Alum Rock the delegates and other visitors hurried back to the city to attend the afternoon races.

REPORTS from England show that there are 2,095 motorcycles registered in Liverpool.

Lawrence Gibler, Yale Agent in Hillsboro, Ohio, Appears at the Left.

A SEVERE HILL CLIMB

Fresno Club Holds Contest on Famous Toll House Grade Which Has Some Startling 45-Degree Stretches.

ONE of the most severe contests ever held on the Pacific Coast was the recent annual hill climb of the Fresno Touring Club, of Fresno, Cal. The well known Toll House Hill was the scene of the climb. The grade is eight miles in length and is claimed to be at an angle of almost 45 degrees all the way. G. L. Epperson, riding an Excelsior, finished first in 13 minutes and 24 seconds. The best previous time made on this hill was twenty-two minutes and eighteen seconds, which was accomplished by an automobile. The hill has heretofore been considered impossible for the motor two-wheeler. The elevation at the foot of the grade, as given by the U. S. Bureau of Forestry, is 1,900 feet. After a climb of three miles the rider is at an elevation of 3,500 feet. The grade has many turns and at no time can the rider see more than 100 feet ahead. Of the fourteen entrants all but one finished.

The times of the finishers were as follows: G. Woods, DeLuxe, 15:50; Paul Waltman, Thor, 14:00; O. G. Nishkian, Excelsior, 22:09; L. O. Redmond, Pope, 16:59; Charles Vieheller, Indian, 18:45; Frank Murphy, DeLuxe, 14:59; Homer Trower, Thor, 15:58; E. Baldwin, Excelsior, out; R. Waltman, Indian, 16:59; G. L. Epperson, Excelsior, 13:24; Oliver Larsen, DeLuxe, 17:09; R. M. Turner, Indian, 18:24; P. Vicerich, Indian, 18:50; C. Sefer, Indian, 16:20. Waltman made second best time.

NATIONAL SHOW PLANS

Coffman Will Manage Independent Motorcycle Exhibition in Chicago—More Space in New York Show.

THANKS to the insistance of President Coffman, of the Motorcycle Manufacturers' Association, enough space will be available in the New York Show in the Grand Central Palace next January to permit of the display of motorcycle accessories, as well as the machines themselves.

At the Buffalo meeting of the Manufacturers' Association, it was decided to hold an independent motorcycle show in the Coliseum during the week beginning Monday, November 3, with President Coffman as manager. Twice as much space as the show occupied last year will be available, in fact the entire main floor of the Coliseum, the dimensions of which are approximately 35,000 square feet. President Coffman and the other two members of the committee, T. W. Henderson, and Arthur Davidson, visited Chicago immediately after the Buffalo meeting of the manufacturers and completed the arrangements.

LATEST SHOP REGISTRATIONS

AMONG the latest repair shops adopting the sign of the F. A. M. are A. T. Crabb, Brazil, Ind.; Taunton Cycle Co.; Amos Shirley, New York City; Edward Nyswander, Grand Rapids, O.; Seeber & Hofheins, Buffalo.

Harley-Davidson Squad in Montgomery, Ala., Ready for a Sunday Run.

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OHIOANS at FIRST STATE ASSEMBLY

PRESIDED over by State Commissioner Jes Campbell, the Ohio State Convention was held in the assembly hall of the Hollenden Hotel Saturday morning. E. D. Hensley, of the United States Tire Branch at Dayton, acted as secretary. Nearly one hundred delegates were in attendance; in fact, as many as participated in the National F. A. M. Assembly at Columbus last year.

Commissioner Campbell called upon Chairman Sauer, of the National Legal Action Committee, to explain the object of holding state F. A. M. conventions. Mr. Sauer said that the state convention principle had been made a part of the national Constitution and By-Laws in order to afford every club and every member of the organization an opportunity to take an active part in the government of the national body. He added that an organization like the F. A. M. could be conducted in one of two ways, either as a democracy or like a strictly business institution. In the former case individual members would only handicap their national officials if they did not exercise the rights given them under the Constitution and By-Laws of the Federation.

He pointed out that under the present form of government of the F. A. M. it was most important that every locality should be properly organized under the direction of a local commissioner having the authority and willing to take complete charge of F. A. M. affairs in his own community. Such a commissioner should not only seek to increase the membership of the Federation in his town, but also co-operate with the state and national bodies through the appointments of legal action, touring and other representatives. If this plan of procedure were not followed out in each locality the success of the state organization would be impaired. The state organization, in its turn, should act as a sort of medium between the National Board of Directors and the clubs and unaffiliated members in every community.

At Mr. Sauer's suggestion, a committee of three was appointed by the Chairman to draft a constitution and by-laws, this committee being made up of E. D. Hensley, of Dayton; Charles Quetschke, of Toledo, and Raymond Ray, of Cleveland.

Next in order came the election of a State Commissioner. R. S. McConnell nominated Jes Campbell. Mr. McConnell was also nominated, but declined, declaring that Campbell had demonstrated his ability to organize the state and his willingness to work in the interest of the Federation. Campbell's election was unanimous, as was also that of E. D. Hensley for secretary-treasurer.

Charles Quetschke, at the Left, and State Commissioner Jes Campbell, Snapped at the State Convention.

For the directorships, of which there are four, six were placed in nomination, as follows: F. L. Valiant, of Middletown; Carl Cappel, of Dayton; R. S. McConnell, of Cleveland; W. R. Kirby; Raymond Ray, of Cleveland, and Charles Quetschke, of Toledo. The ballot resulted in the election of R. S. McConnell with sixty-five votes, F. L. Valiant with fifty-four, Raymond Ray with forty-nine and Charles Quetschke with forty-one.

Upon the suggestion, by letter, of Dr. Thornley, the delegates voted to recommend a state referee. R. S. McConnell was the first choice of the convention with thirty-six votes, Quetschke with twenty-seven and Cappel with four.

State Commissioner Campbell reported an F. A. M. membership in the state of over two thousand, and forty-three affiliated clubs.

President A. B. Coffman, of the Motorcycle Manufacturers' Association, complimented the boys upon their attendance and interest shown, declaring that the state of Ohio had made a fine beginning and had set an example which other states might well follow. He expressed his disinclination to accept F. A. M. presidential responsibilities, stating that he would rather not undertake it as he did not feel that he could devote sufficient time to the work. F. L. Valiant, of the Miami Cycle & Mfg. Company, of Middletown, expressed the hope that Mr. Coffman would see his way clear to reconsider his decision, as he was confident that, in the event of his doing so, Mr. Coffman would have no trouble in getting a comfortable majority of the votes of the delegates to the Denver Convention. Valiant called upon each delegate present to promise to bring in at least three new members before the Denver convention. Those who were willing to do this were asked to stand. By actual count forty-two promised to add at least three each to the present membership in Ohio.

State Commissioner Campbell made announcement of the tour out of Chicago to the Denver convention, and requested that all who intended to make the trip a-wheel should write him at his home address, Michigan Apartments, Toledo. He also announced that those who wanted to go to Denver, but were not in position to make the trip on their motorcycles, should communicate with Mr. Sauer, at 51 Chambers street, New York City, with a view to joining the party which will make the trip in a special car.

The entertainment program was well arranged by the committee in charge. On Friday evening about two hundred riders enjoyed a lake ride on the steamer *Eastland*. A trip to Euclid Beach was on the program for Saturday afternoon, but the weather was far from inviting, it being cold and rainy, and the majority stayed indoors. Saturday night after the races at the Motordrome, a rally, at which about two hundred were in attendance, was held at the Plaza Theater in Luna Park. The F. A. M. prize cup, won by the Cleveland Club in connection with the recent F. A. M. membership campaign conducted by Director Sauer, was presented to the Cleveland boys. Short addresses were also made by Messrs. Coffman, Campbell, Hensley and Cappel. A vaudeville entertainment followed.

THE LINE-UP OF TOURISTS

Those who participated in the tours to the convention city were as follows:

Herman Warnke, Toledo (Yale); Lee Butler, Toledo (Indian); Paul Masell, Toledo (Excelsior); Charles T. Henderson, Springfield (Indian); Paul Martin, Springfield (Indian); W. Dean Mathews, Mt. Gilead (Indian); I. Schenck, Cardington (Excelsior); Ray Campbell, Edison (Emblem); F. J. Kehrwecker, Cardington (Harley-Davidson); J. E. Muller, Toledo (Excelsior); A. R. Ketcham, Toledo (Yale); Paul Misamore, Findlay (Yale); Glenn Swartz, Findlay (Yale); George Needles, Findlay (Yale); Sam Downs, Toledo (Indian); A. Davis, Toledo (Excelsior); A. R. Oberwegner, Toledo (Excelsior); L. F. Anderson, Vandalia (Yale); Paul Monroe, Sidney (Yale); Charles E. Barr, Columbus (Indian); Charles Dickason, Elyria (Merkel); Leigh Murray, Toledo (Yale); Fred Kirk, Detroit (Yale); Mrs. Lee Butler, Toledo (Indian); Mrs. T. Weiler, Toledo (Yale); A. G. Weiler, Toledo (Yale); Thomas M. Dunham, Buffalo (Yale); Homer T. Coleman, Toledo (Excelsior); H. M. John, Lorain (Merkel); William D. Shepherd, Dayton (Harley-Davidson); R. L. Hultgren, Dayton (Dayton); C. F. Weeber, Jr., Dayton (Indian); R.

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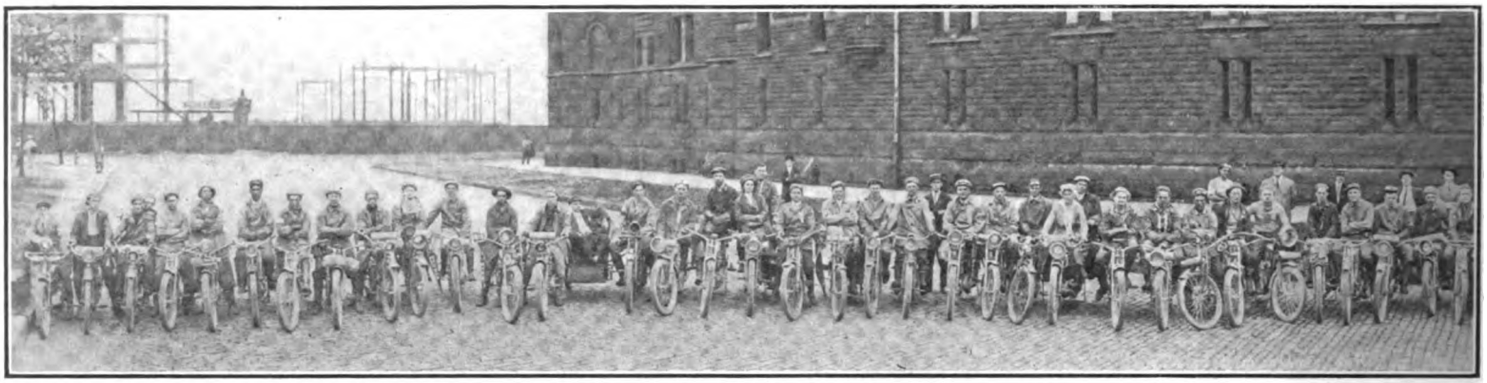
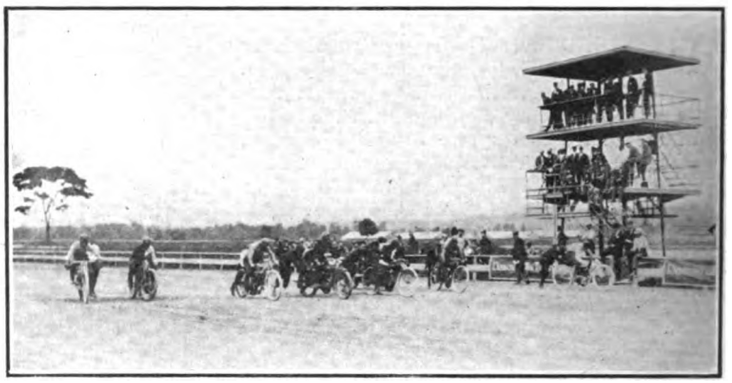


Main Division of Clevelandites and Visiting Riders Photographed During One of the Few Idle Periods of the Ohio Convention.

Big Gathering of Riders in Gordon Park. Note Sidecars in Front Rank.



Start of the 5-Mile F. A. M. Championship Race at Randall Park.

Phees, Dayton (Harley-Davidson); Albert Peake, Columbus (Harley-Davidson); E. E. Hagerman, Dayton (Thor); C. H. Kirzig, Dayton (Indian); C. G. Blackwell, Dayton (Harley-Davidson); E. A. Falknor, West Milton (Yale); C. J. Holflish, West Milton (Yale); Edward Hosler, Toledo (Yale).

C. C. Caldwell, Toledo (Excelsior); Charles W. Quetschke, Toledo (Yale); L. Z. Keister, Toledo (Excelsior); L. O. Coleman, Toledo (Excelsior); Leo C. Nieschwitz, Canton (Indian); Leslie O. Rhoades, Bloomer (Indian); A. L. Thacker, Toledo (Yale); Chester Baird, Zanesville (Indian); I. S. Boyer, Piqua (Indian); Raymond Ray, Toledo (Yale); G. O. Ellison, Cleveland (Merkel); F. A. Riemann, Zanesville (Indian); R. E. Miller, Zanesville (Thor); P. R. Brehmer, Zanesville (Indian); E. L. Atwell, Zanesville (Harley-Davidson); J. W. Tassell, Toledo (Yale); William George, Toledo (Yale); J. F. Meyer, Mansfield (Yale); A. Jacobs, Toledo (Merkel); Homer Long, Lima (Yale); Howard Stevenson, Lima (Yale); C. B. Schant, Lorain (Indian); Frank S. House, Fremont (Excelsior); A. A. Shuman, Toledo (Reading-Standard); I. F. Jacobs, Toledo (Yale); Thomas Wollenhaupt, Toledo (Yale); W. S. Bailey, Toledo (Yale); H. D. Capron, Toledo (Yale); Paul Sheridan, Youngstown (Thor); C. C. Little, Painsville (Indian); A. C. Fletcher, Covington (Emblem); Arthur Deeter, Covington (Yale); C. C. Lawrence, Canton (Indian); A. R. Cover, Canton (Indian); Ray Hart, Mantua (Indian); E. C. Eckert, Ravenna (Indian); R. J. Agate, Elyria (Harley-Davidson); DeWitt Kirkpatrick, Cardington (Harley-Davidson); Wayne S. Liddle, Springfield (Indian); G. W. Richeson, Springfield (Indian); C. L. Frank, Toledo (Indian); W. J. O'Shea, Toledo (Yale); Vern Timfrock, Dayton (Harley-Davidson); Gordon Wright, Sidney (Yale); O. Y. Blake, Sidney (Yale); H. C. Voress, Sidney (Yale); William Armstrong, Canton (Excelsior); Henry George, Canton (Harley-Davidson); H. R. Crock, Bucyrus (Indian); Robert Hinds, Toledo (Yale); G. W. Williams, Elyria (Indian); J. A. Campbell, Toledo (Yale); George Sterns, Elyria (Harley-Davidson); C. B. Tunte, Lorain (Harley-Davidson); L. H. Rankin, Elyria (Merkel); Fred W. Steirhoff, Columbus (Yale); A. J. McBeth, Elyria (Merkel); A. P. Cock, Oberlin (Indian); J. T. Green, Toledo (Yale).

THE RANDALL RACES

ON SUNDAY AFTERNOON the first annual Ohio State F. A. M. Championship race meet was held on the Randall track. The officers presiding were: Referee W. R. Kirby; starter, R. S. McConnell; clerk of course, Harry Johnson; judges, J. A. Campbell, E. D. Hensley, Frank Valiant and Carl Cappel; timers, Jos. Frisbie, Paul Sheridan, Fred Preston, Percy Long; umpires, A. McBeth and F. H. Penniman; scorers, Snell, Long and Entres; announcer, Harry Jacobs. The track was in fine condition and good time was made. The record for the local track was equaled. The old record for one mile was 50 seconds flat.

A Group of the Officials and Delegates Who Were in Attendance at the Convention in the Hollenden Hotel.

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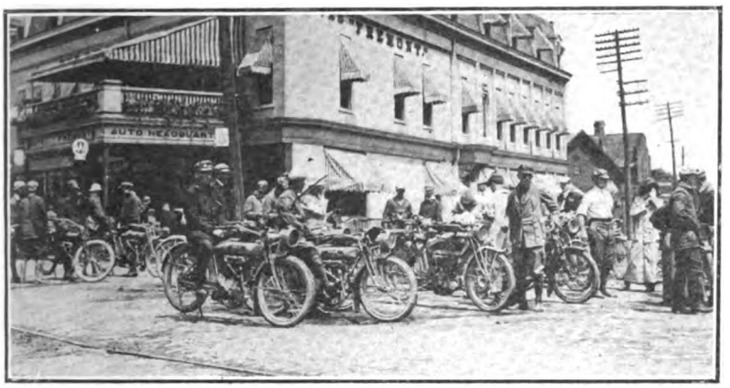
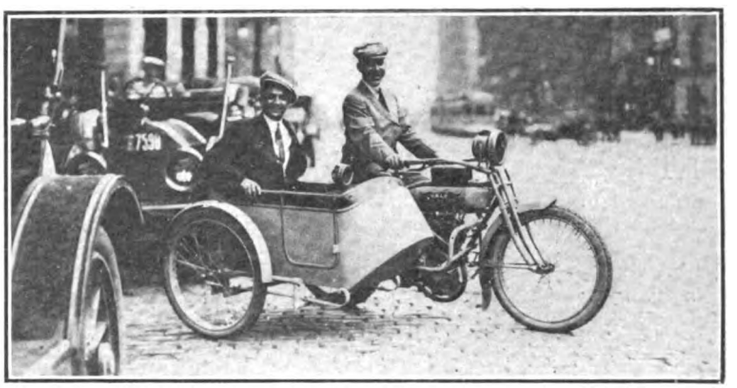
Quite a Few of the Sidecars Are Missing from This Line-up, but the Gathering Is Still Sufficiently Impressive.



Tourists Halted for Gasoline in Fremont on the Way to Cleveland.



T. M. Dunham, on Machine; Harry Jacobs in Autocrat Sidecar.

This was equaled by George Evans, of Toledo, on an Indian machine. The 25-mile race was the big feature of the day. This was won by Raymond Creviston, riding a Thor. All the races, however, were hotly contested.

Summary of events:

Five-mile Ohio State F. A. M. Championship; 61.00 cu. in.; stock; flying start; amateurs. First prize, Ohio State F. A. M. gold medal—H. Lister, Harley-Davidson; S. W. Simpson, Indian; H. Meyers, Harley-Davidson; H. D. Woolley, Indian. Time, 4:51⅘.

Five-mile professional; 30.50 cu. in.; open—Geo. E. Evans, Indian; Howard Cole, Thor; H. Huntsbery, Merkel. Time, 4:59.

Twenty-five-mile professional race; 61.00 cu. in.; open—Raymond Creviston, Thor; Lewis Seiple, Jefferson; Geo. Evans, Indian. Time, 22:57.

One-mile Ohio State F. A. M. Championship; 30.50 cu. in.; amateurs; stock; flying start—H. Woolley, Indian; H. Meyers, Harley-Davidson; Wm. Spicht, Pope; J. R. Paton, Reading Standard. Time, 1:08⅘.

Three-mile novice; amateur; 30.50 cu. in.—J. A. Paton, Reading Standard; H. D. Parker, Excelsior. Time, 4:07⅘.

Ten-mile Ohio State F. A. M. Championship; 61.00 cu. in.; amateur; stock; flying start—S. W. Simpson, Indian; H. Meyers, Harley-Davidson; Fiesler, Jefferson. Time, 9:45⅘.

Three-mile professional; flying start; 30.50 cu. in.; open—Geo. Evans, Indian; Jones, Merkel; H. Cole, Thor; H. Huntsbery, Merkel; Bailey, Yale. Time, 2:49⅘.

Pursuit race; professional; 61.00 cu. in.; strictly stock—Three entered. Won by R. Creviston, Thor; distance, 8⅓ miles. Time, 7:27.

Time trials; open—Geo. Evans equaled old record made two years ago. Time, 50 seconds flat (Indian).

Two-mile Ohio State F. A. M. Championship; 30.50 cu. in.; amateur; stock; flying start—Herbert Meyers, Harley-Davidson; H D. Woolley, Indian; Wm. Spicht, Pope. Time, 2:15.

In Spite of Numerous Outside Attractions the Riders Attended the Business Session in Encouragingly Large Numbers.

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A JAUNT to GETTYSBURG

by Hugh M. Smyth.

MEMORIAL DAY coming on Friday this year, and Saturday being a half holiday, a number of riders of the Wilmington (Del.) Motorcycle Club decided to make the most of their opportunity for an outing, and as soon as I heard of the suggestion I was enthusiastically in favor of making a trip. It was rather late when we thought of the combination of the holiday and Saturday, so that it was impossible to line up many of the boys, but those of us who could get away decided to enjoy a run to the famous Gettysburg battlefield. Our plans also included a trip over to Harrisburg on Sunday for an inspection of the fine capitol. Then came several rainy days and all the riders withdrew but the writer and one other enthusiast, Harry P. Jones. We insisted upon going, regardless of the weather outlook.

Accordingly, we started from Wilmington bright and early on Friday morning, May 30. I mounted my Indian 7 and Jones rode his 9 h. Dayton. We pulled out of Wilmington about 6 a. m. and by hitting up a pace of better than fifty miles an hour we soon left Delaware behind us and crossed over the state line into Pennsylvania. We had typed the routes, giving mileages, etc., on heavy paper which we folded in sections and fastened to our Prest-O-Lite tanks by heavy rubber bands. Our tanks are attached to the handlebars, and thus make excellent map holders, being just forward of the speedometer. By this arrangement we had the route, the map and the speedometer always in front of us for reference. Our map, by the way, had been clipped from the 1912 Touring Number of MOTORCYCLE . ILLUSTRATED. We marked the times of arrival and departure at the various towns on our route sheets and in this way kept a satisfactory record of the trip. Such notes as these are worth preserving and are always useful.

Cutting up through Pennsylvania over some fair macadam and some dirt roads we soon struck the Gettysburg Pike from Philadelphia, and in a short time we rolled into the town of Coatesville. Soon after leaving Coatesville we found the pike in bad condition, several sections of it being torn up for repairs. Finally the road improved somewhat, and approaching Lancaster it was in fair shape. We quickly discovered why this was the case for we had traveled only a short distance when we were held up at a toll-gate. We were riding at about 35 miles an hour when suddenly we saw something that looked like a white-washed fence rail come down into the road ahead of us—about a block distant. We rode up and found a toll-gate. We asked why it had been considered necessary to drop the rail across the road to stop us, and the man on duty explained that he could not take chances on having someone get by without paying. This struck us as peculiar, for we have tolls in Delaware but we had never seen a gate dropped in this manner.

Warm Reception in Lancaster

A few more toll-gates marred an otherwise pleasant trip into Lancaster, but on our arrival we were repaid somewhat by finding a very lively motorcycle town. Lancaster is certainly one of the liveliest towns we have ever struck for motorcyclists. We stopped over there two hours and received numerous invitations to stay in town for the races to be held in the afternoon. We also met the York M. C. there, the boys having parked their machines in the public square while waiting to go to the track for the speed events. We would have liked to witness the races but our schedule called for more road work, and we took our departure. Arriving in Columbia, we had to pay toll and then wait fifteen minutes before crossing the railroad bridge over the Susquehanna into Wrightsville. This is certainly a long narrow bridge, seemingly more so because all the trusswork is overhead. Still it was well planked and we were soon over it.

A Stretch of Hard Going

Finally we reached York and from that point to Gettysburg we encountered some mighty tough going. It seems that the state is repairing the roads and in many places the surface is torn up so that riding is practically out of the question. We bumped over all kinds of ruts, rode through a lot of broken stone and experienced almost every other kind of trouble imaginable. Oh, but that cracked stone was fine for our tires, and it made slow going, too.

The Tourists Met a Bevy of Fair Visitors in "The Devil's Den"

In due time—and none too soon—we were rewarded by seeing Gettysburg ahead of us and we opened up a little only to find more trouble where a street was being torn up for re-paving. After getting over this we chugged through the holiday crowds and stopped at the New Gettysburg Hotel Here we enjoyed a wash and removed our riding togs. Under them we had our regular suits, so we were up to the mark as far as appearances went when we went out again to mingle with the crowd. We arrived in Gettysburg at 3:45 p. m., having

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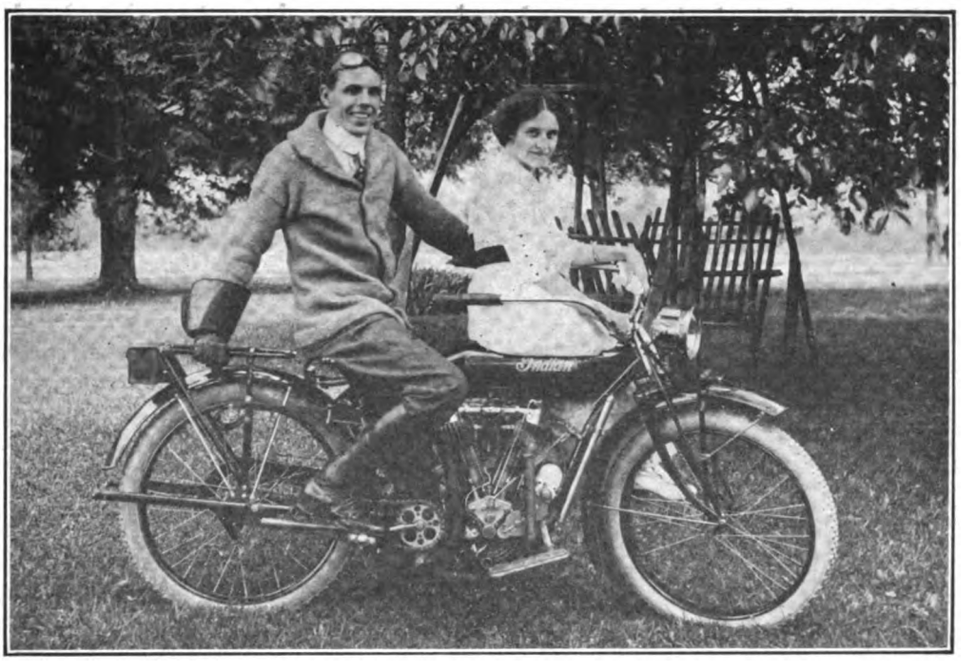
made the 120 miles from Wilmington in five and a half hours of actual riding. We had lost four hours in our stops along the route.

After supper we took a walk through the cemetery, up Culp's Hill and over East Cemetery Hill, studying the positions of the various forces as indicated by monuments so laid out as to show the progress of the second day's battle on that memorable field. On Saturday morning we rode all over the many fine drives which have been built by the government over the battlefield. We stopped frequently to view monuments and finally visited the tower on Big Round Top. From this point we looked down upon the field where Pickett made his fatal charge and later we went down to a hiding place of the Confederate sharpshooters, now referred to as "Devil's Den." Here we met half a dozen girls who were much interested in our mounts. They appear in the photograph which accompanies this article.



Donald H. Johnston, of Collins, Ohio, and a Fair Enthusiast Ready for a Park Spin.

A Detour to Harrisburg

After dinner, finding that the roads from Gettysburg to Harrisburg were poor, and having had a rainfall the night before, we decided to travel forty miles westward over the mountains to Chambersburg, and to go from there to Harrisburg. We left Gettysburg at 2 p. m. and arrived in Chambersburg at 4:30, after stopping at various points to take pictures of the mountains. Our actual running time was two hours. After a short stay in Chambersburg we left for Carlisle, the seat of the famous Indian school. We were misdirected off the route and had about 20 miles of rough mountain road to cover before reaching Carlisle.

Here we met the Indian motorcycle agent who treated us royally. We made only a short stop and then struck out for Harrisburg. We wanted to make up some lost time and for a good deal of the distance we were just two red streaks slipping over the highway. We paid toll to cross the bridge over the Susquehanna into Harrisburg, where we arrived a few minutes after seven in the evening. After supper we went sightseeing and finally turned in, tired but pretty well satisfied with our outing up to that point. At 6 o'clock the next morning we turned out, filled our tanks and made another sightseeing trip. We were much interested in the state capital, which we inspected both inside and out.

From Harrisburg we rode on to Reading, striking a pretty fair pike on which the worst features were the toll-gates. We encountered about fifteen of them where we had to stop and show a ticket that had been obtained at the first gate. On the way we stopped at the village of Hershey, where the Hershey chocolate is made, and it was undoubtedly the cleanest spot we saw on our trip.

After passing through Lebanon we reached Reading, shortly after 11 a. m. We stopped for several hours and had dinner. From Reading we made fast time through Pottstown to Norristown where we turned down past Valley Forge, through West Chester and to the Delaware line. Here we opened up for a sprint over the last leg of our outing and arrived in Wilmington at 5:30.

We had enjoyed a fine trip through beautiful country, at an ideal time of the year, and neither of us had experienced any mechanical trouble worth speaking of. I certainly gave my cradle-spring frame a severe test but it came through in fine shape. Jones was also enthusiastic over the showing of his Dayton. I discovered that I had used only five gallons of gasoline in covering 350 miles over hilly country, and Jones' consumption was about the same. We are now planning a Fourth of July trip to Delaware Water Gap, the Poconos and over into New York State.

HELPFUL HINTS

LET US back-pedal a bit upon the time-worn idea that our British friends are totally devoid of a sense of humor. Counsel for the defense submits the following, appearing above the name of Major General Horatio Bangs, in the English *Motorcycle:*

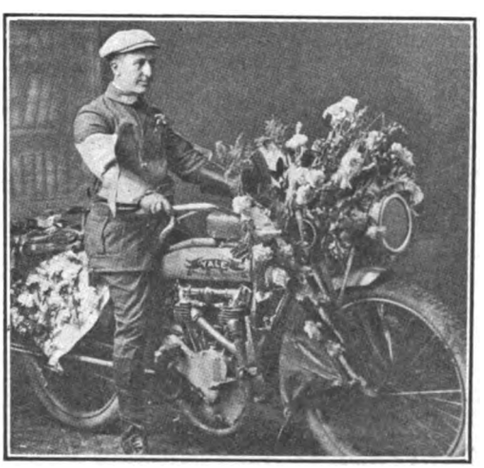
"Sir: One of the great uses of the correspondence columns in *Motorcycle* is that readers may give their experiences to others, and I wish to thank 'Next, Please,' for his most useful hint. Personally, it would never have occurred to me to remove the front wheel and take out the bearings to compress my valve springs so long as roads are bordered by fields and fields have gates, in the hinges of which one may easily compress a spring and hold it while being tied, nor do I think I possess the necessary stock of washers. It has occurred to me that the following hints may be useful to less experienced and resourceful riders than myself, but I have never tried them:

"1. If a motorcyclist should happen to leave his tire lever at home, a connecting rod will form a very good substitute, and the rider will be almost certain to find one or more of these in his engine. Also, if a piece of wood be driven into the big end, it becomes an excellent mallet.

"2. Riders wishing to tow their friends and not having an elastic tow rope are recommended to use the inner tube from their back tire; the butt-ended variety is especially suitable for this purpose.

"3. If a motorcyclist, when on tour, forgets his toothbrush, he should remember that there is a carbon brush in the magneto which will answer the purpose admirably.

"4. If a piece of thin wire be wanted for any purpose, *e. g.*, to affix a mascot, there is always an ample supply in the armature."



Harry Warnke, of Toledo, Ohio, on Yale Twin That Won First Prize in Parade Incident to Recent Race Meet

WINNERS IN MAY CONTEST

E. M. ESTABROOK, Bangor, Me., chairman of the Membership Committee of the F. A. M., announces the winners of Old Sol lamp in the club membership contest for May: Corning (N. Y.) M. C., two lamps; Nashville (Tenn.) M. C., one lamp, and the Passaic (N. J.) M. C., one lamp.

On June 30 the contest among the clubs for Old Sol lamps closes with the distribution of thirteen headlights, five of which will go to new clubs affiliating with the Federation during June. The other eight will be awarded to clubs affiliated before March 1, which have brought in the largest number of new members during March, April, May and June.

RUN TO ST. AUGUSTINE

UNDER the leadership of "Pop" Price, captain of the Jacksonville (Fla.) Motorcycle Club, members of the club recently made a run to St. Augustine. On arriving at Pablo a number of the riders declined to go any further owing to the bad condition of the roads, but "Pop" and a few of the gamer ones kept on until the "Ancient City" was reached.

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SEVEN SEASONS in the SADDLE

H · C · WING

IT was back in 1906 when the automobile was just becoming an ordinary sight on the roads, that I first interested myself in motorcycles. At that time I was employed as a mechanic and anything that would afford me an opportunity to tinker with a new piece of machinery was likely to hold my attention. I well remember the incident that aroused in me a desire to bestride a motorcycle. I was at work in the shop one day when a motorcyclist stopped and asked for oil. Being what you might call "green" on the subject of lubricating motorcycles I offered the stranger some steam cylinder oil, and he was foolish enough to take it. Then I asked him numerous questions, and when he finally chugged away I watched the trail of heavy black smoke behind him and felt that life would be worth living if I could skim about the country on two wheels.

My earnings at this time were scant and the outlook for purchasing a motorcycle was anything but bright. Still I was not discouraged and as soon as possible I set about finding extra work. I toiled many an evening and on Sundays and in three months my bank account had reached a total of $60. Don't smile; that $60 looked like a small fortune to me in those days. Having some cash at hand I began to watch the classified advertising in the trade journals and finally I came upon an announcement to the effect that a 1906 model could be bought on liberal terms. I wrote the advertiser and received in reply a letter full of the most remarkable claims ever made for a motorcycle. They did not strike me as being so funny at the time, but with years of motorcycle experience behind me I cannot help smiling over that first letter.

BREAKING INTO THE GAME.

The price asked for the machine was $75 and as I did not have that much money I decided to drop the matter. Then I received another letter from the owner of the machine. He told me that I was letting a good chance get away from me, and I finally wrote him to the effect that he was asking too much for his mount. I did not believe he would make a reduction, but he did. One memorable day a letter came telling me that I could have the machine for just $60—and I sent a deposit in a special delivery letter. This done I entered upon a period of suspense, for I was so anxious to have that machine that I could hardly sleep or eat for thinking about it.

Four days after sending the deposit I was taken sick and was unable to go out when my motorcycle finally arrived. You will agree that this was pretty tough luck. I strained a point and left my bed long before I should have, and my first move was in the direction of my machine. I got it uncrated and without great difficulty trimmed it up in shape for the road. Then I attempted to start it and for half an hour I pedaled enthusiastically without getting a single explosion. Of course, you will understand that I was quite weak, and this exertion played me out so that I was forced to go back to bed for two weeks.

FIRST MISHAP IN A LONG SERIES.

I had lots of time to think over the action—or lack of action—of my machine, and when I was able to move about again I made an examination that showed me the trouble. I discovered that the machine had little or no compression, and on taking the motor down I found that the wrist-pin had worked out and scored the cylinder on either side to a depth of nearly an eighth of an inch. This necessitated a new cylinder, piston and rings before I could hope to get the outfit in running order. I ordered the new parts and after a wait of four weeks I began to assemble the engine once more. I experienced no serious trouble in getting the power-plant together and was rewarded by having the motor chug merrily along on almost the first turn of the pedals. How that old machine did rattle and pound! It nearly shook me out of the saddle, but I managed to stick to the job and in due time I decided upon a road trial.

Let me say that my first ride on that machine will be long remembered. After a rather wobbly start in which I pedaled fully a quarter of a mile I got the mount under way and was enjoying myself immensely when I came to the first turn in the road. I knew nothing about taking turns, but I was destined to learn a thing or two, and that quickly. I retarded the spark (there was no throttle control) and slowed down as much as possible, but even with these precautions I struck the turn at about 20 miles an hour.

E. T. Swenson, of Redmond Falls, Minn., initiating a fair passenger into the delights of motorcycling.

AN EVENTFUL OUTING.

Alas! the strain was too much for the tires (they had been advertised as new, by the way) and as I swept around the bend they both went to pieces. The front one went first and the rear one only a few seconds later. Then things began to happen. I lost control of the machine and flopped all over the road before I finally struck the ground. It was my first spill, and it was a corker! I'll never forget it. I turned several cartwheels and landed in a heap, but managed to escape with a few bad scratches. It was a different story with my motorcycle. Both tires were in shreds, and the first glance showed me the brand new piston sticking its head through the side of the cylinder. Just what had happened I will never know, but is was evident that the piston had run amuck during the fracas.

As I did not wish my friends to see my predicament I waited until dark and then pushed the machine home, taking a roundabout course. I was very sore (mentally and physically) and discouraged, but not with motorcycles in general. I felt that I had been trimmed most effectively on that machine but I did not give up my determination to be a full-fledged motorcyclist. About a week after the spill, when some repairs had been made, I traded my first mount for another of a different make. This gave me trouble from the start, and after getting it in running shape I sold it for $40, and was glad to get rid of it. At this point I decided not to buy another motorcycle until I could afford a new and reliable one. I was thoroughly convinced that it did not pay to invest in second-hand machines.

A SATISFACTORY MOUNT AT LAST.

Still I was not long without a machine, for a month or two later a friend came to me with his machine, and agreed to let me use it for the remainder of the season if I would have a few repairs made. I jumped at the offer and soon had the mount in good trim. When it was ready for a try-out I hopped aboard and went off down Main street like a sky-rocket, without a muffler, light or horn. The next day I was served with a summons to appear in court for violating the speed

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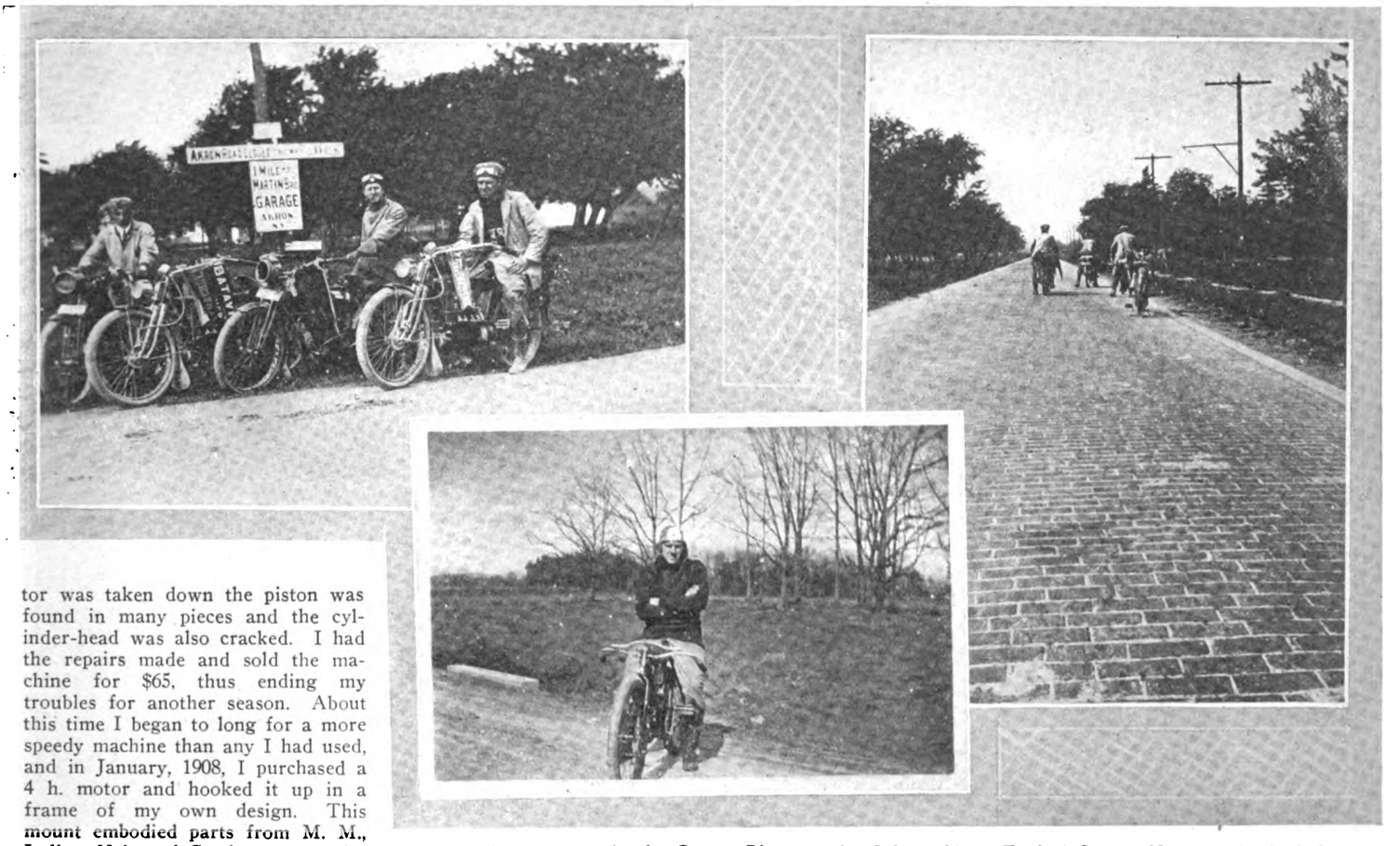
ordinance. Thereafter I was more careful. The machine gave excellent service and I had many a pleasant spin on it before the first snow fell.

In the spring of 1907 I bought a new machine of a well-known make and during the season I covered almost 4,000 miles on it without experiencing any trouble worthy the name. Late in the summer I had a chance to exchange for a machine of another make that was almost new, and as my machine had seen considerable service I decided to make the change. I had been riding the new machine only a short time when I had a spill that put the chugger in a repair shop. When the motor was taken down the piston was found in many pieces and the cylinder-head was also cracked. I had the repairs made and sold the machine for $65, thus ending my troubles for another season. About this time I began to long for a more speedy machine than any I had used, and in January, 1908, I purchased a 4 h. motor and hooked it up in a frame of my own design. This mount embodied parts from M. M., Indian, Yale and Curtiss motorcycles and came to be known in our district as "Little Red Riding Hood."



Mr. Wing Appears in the Center Picture; the Others Show Typical Scenes Near Springfield, Mass.

This mount proved speedy on the road and in a number of impromptu brushes I finished first. There was a reason for this, of course, for my machine developed 4 h. while most of the other mounts of that period had only 1¾ to 2½ h. I figured in some local races and while traveling at 50 miles an hour on one occasion I had a spill that wrecked the machine. I luckily escaped serious injury.

AFTER RACING LAURELS.

I managed to patch the motor up once more and participated in a July Fourth race meet in a neighboring town. The feature race was for two miles and was run in three heats. My motor seemed to be in poor condition and I was a tail-ender until the final lap. Suddenly I discovered that a broken spark plug connection was to blame for my trouble and I leaned over and held the wire in place. This allowed me to pick up lost ground and I shot across the line six feet to the good. I won the second heat with ease and figured that the third would go the same way, but after the second whirl somebody drained the gasoline out of my tank and that put the lid on me.

However, I felt pretty well satisfied with my machine and myself and three weeks later I entered a 5-mile free-for-all at a firemen's picnic. There were five starters, four singles and a twin. Those riding singles, like myself, figured that they would best the twin on the turns, but this theory did not work out. The twin rider pulled far ahead of us on the stretches and just slowed up enough on the turns to tease us. This race put a crimp in my pride and about two weeks later I sold "Little Red Riding Hood" and took a rest.

Next I bought a machine of a make that is now off the market, but I kept it only a short time. It was a 3 h. mount. After this came 3 h. racing motor which I assembled myself and placed in a standard frame. There was a big race coming off and I had the motor ready in time, but was unable to get tires, so I had to suffer another disappointment.

THE JINX STILL ON THE JOB.

I telegraphed several times for the tires and finally received them a week after the race. By way of making up for lost time I took the machine out on the road and had a spill that wrecked the front wheel. A week later I broke the rear wheel and soon afterward I struck a car track while riding at 50 miles an hour and was thrown seventeen feet in the air. I still have a few marks to show for that experience. As it seemed that this machine was made for hard luck I sold it. In the winter of that year I went to Jacksonville, Fla., and while there I picked up a 1908 model of a prominent make and began to test it.

I knocked around on it for a time with varying success and then purchased a 1909 model with which I made a trip to Jacksonville, Fla. While here I sold my machine but soon bought another and then went further southward. This machine had 3½ h. and as the roads in the Gulf section are anything but good I went through some exciting experiences. Still I did quite a bit of riding, and in general I enjoyed it. The machine finally settled down to fairly good work and I brought it home with me late in the fall of 1909. That ended my season's riding.

(To be continued.)

SANCTIONS WITHOUT CHARGE

IN PAST seasons a number of requests have reached Chairman Thornley, of the F. A. M. Competition Committee, for racing sanctions without charge, the explanation being offered that the program was being staged for a charitable cause or to boost Federation interests. The chairman has been puzzled as to how to discriminate between these applications and those for which the regular fee could be expected, and he has accordingly announced that the only sanctions to be issued without charge for the present season will be those covering events that are staged directly for charitable causes. Should an application be made on any other basis (requesting exemption from the fee) it will be referred to the Board of Directors.

AN expenditure of $50,000 is planned by the city of Baltimore this year to motorize the municipal departments, the plan being to replace all horse-drawn vehicles with automobile or motorcycles.

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THE Indian team consisted of eight machines. Three were nominated for the team prize, viz.: Oliver C. Godfrey, C. B. Franklin and J. R. Alexander, all riding specially built single cylinders, with dimensions of 82½ x 93 m. m. Of the remaining quintette, a Manxman named Noel Brown, and two more trade entrants, J. F. Sirett and Sidney George (the latter a discovery of W. H. Wells, and reported to be a real speedster), also rode special new single cylinder racers, while the remaining couple, A. H. Alexander, Jr., and O. G. Braid, rode a pair of the old cut-down 5 h. racers, measuring 70 x 64½ m. m.

Alexander's twin was the actual machine which Godfrey steered to victory in 1911; it is four years old, and has twice had its stroke shortened to fit the regulations of these races, for it started its road life as a 5 h. As it turned out, this machine figured most prominently in the race. There were 44 entries for the Junior race, and 103 for the Senior; it was impossible to find room for all these men simultaneously on a 37½ mile lap of very dangerous roads. Consequently the Junior men raced for two laps on Wednesday morning, after which the roads were cleared for the Seniors to race three laps on Wednesday afternoon. Then the machines were put under lock and key till Friday, when the survivors, numbering 32 Juniors and 79 Seniors, raced concurrently for the concluding four laps, the two sets of riders being distinguished by red and blue vests, bearing large numbers.

The Senior Race

THE ORDER of starting was by ballot, the 1912 winner, Applebee, on a two-stroke Scott, having the privilege of going off first. The eight Indians started 8, 26, 31, 38, 44, 79, 93 and 103, respectively. The first lap created a huge sensation. The two brothers Collier, with Harry Reed on a Jap-engined Dot, Applebee's Scott, and the two Indians ridden by Godfrey and Franklin, were regarded as the fastest entrants, but when the judges hoisted the lap times on the hundred yard boarding at the winning post, four single-cylinder Rudges headed the list, and the favorites were in a clump behind them, with the younger Alexander who was not seriously fancied, sandwiched betwixt them, thus:

Final Standing of First Eight Riders in Senior Tourist Trophy Event.

	H.	M.	S.
1. Wood, 3¾ h. two-stroke Scott	5	26	18
2. Abbott, 3½ h. Rudge	5	26	23
3. Alexander, 3¾ h. Indian, twin.	5	30	11
4. Franklin, 3¾ h. Indian, twin.	5	32	4
5. Cocker, 3½ h. Singer	5	32	13
6. Sheard, 3½ h. Rudge	5	42	27
7. Moxey, 3½ h. Zenith	5	45	42
8. Garrett, 3½ h. Green	5	50	49

1. Sheard, Rudge.....44 m. 23 s.
2. McDonagh, Rudge.....45 m. 2 s.
3. Greene, Rudge.....45 m. 11 s.
4. Bateman, Rudge.....45 m. 43 s.
5. Alexander, Indian, t. c..46 m. 6 s.
6. Godfrey, Indian, s. c.....46 m. 7 s.
7. C. Collier, Matchless.....46 m. 9 s.
8. H. Reed, Dot.....46 m. 11 s.

Wise heads wagged eagerly over this surprise, and we decided that the Rudges—which have a purely track reputation so far as speed is concerned, would not stay the course, and that the old hands behind them were hanging back, and letting the Rudges crack each other up. We waited confidently to see the Rudges let up the champions on laps two and three. But further sensations were in store for us.

When the Favorites "Went Bad"

GODFREY was missing when the men came around again, and it turned out that his engine chain and sprocket had swirled off the crankshaft and ricochetted over a hedge into a field of hay when he was beating 70 m. p. h. along the fastest piece of the course. Greene had met tire troubles—the Rudges were thrown out of the race by bad tires pure and simple; McDonagh burst his tire at speed, broke his collar-bone, and was ambulanced off to hospital. This left three vacancies in the original eight leaders, and they were snapped up by the Scott team's fourth string, by another Rudge, and by Franklin's Indian in the following order (times given are net for 2 laps—75 miles):

	H.	M.	S.
1. Sheard, Rudge	1	30	49
2. Wood, Scott	1	30	53
3. Bateman, Rudge	1	31	18
4. C. Collier, Matchless	1	32	7
5. Franklin, Indian	1	32	28
6. Alexander, Indian	1	32	34
7. Reed, Dot	1	33	14
8. Abbott, Rudge	1	33	23

The next lap produced an absolute slaughter of the favorites. Both the Colliers went out, Charlie with tire troubles, and Harry with a burst valvecap, of all extraordinary mishaps. Sheard's tires went, as his colleagues' had done in the earlier laps, and he dropped right back. Wood came with a wet sail and snatched four minutes' clear lead of everybody, and Sirett's Indian pulled up to back up his teammates, while Applebee, the 1912 winner, had as narrow an escape as a man could wish. He had just completed the fastest part of the course—which was also the roughest, and had slowed down for a bad bend when his steering began to wabble. Jumping off, he found both steering fork blades had snapped clean across, the wheel being held only by the bisecting flat liner, which is used on the Scott, as on the Indian, to strengthen all the frame tubes; had it occurred a mile sooner, nothing could have saved his life. So the first day's racing ended with the following eight men in front, not one of whom had been seriously fancied as a "placed" man, unless we except Franklin.

(112½ miles)

	H.	M.	S.
1. Wood, Scott	2	14	3
2. Bateman, Rudge	2	18	15
3. Alexander, Indian	2	18	34
4. Franklin, Indian	2	19	8
5. Abbott, Rudge	2	19	44
6. Sirett, Indian	2	20	32
7. Sheard, Rudge	2	20	38
8. Mundy, Triumph	2	20	44

This left it anybody's race, but as the Scotts were suspected to be deficient in stamina and had encountered serious plug troubles, due to the quantity of oil they require, the race was commonly regarded as a magnificent Rudge-Indian duel, with the red Indian a hot favorite.

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Friday's Concluding Four Laps

SENSATION began early on Friday and kept us all on tenter-hooks until the finish. Wood got into bad trouble on the fourth lap. He broke a water joint, and had to make two stops of 3 minutes each to mend it, while a momentary airlock in his petrol pipe caused him to conk out on the frightful hairpin bend with which the seven-mile ascent of Snaefell mountain begins, and so made him slow on the very part of the course where he was normally pulling back a couple of minutes on the fourstrokes. Sheard had more tire troubles, and after 150 miles the order was:

	H.	M.	S.
1. Bateman, Rudge	3	4	51
2. Alexander, Indian	3	4	58
3. Abbott, Rudge	3	5	39
4. Wood, Scott	3	7	59
5. Reed, Dot	3	8	16
6. Franklin, Indian	3	9	33
7. Sirett, Indian	3	9	45
8. Cocker, Singer	3	12	52

The next lap a terrible catastrophe let Alexander's Indian into first place. Poor Bateman was coming down off the mountain top, where a long straight grade of 1 in 10 ends in a sharp righthand curve. He was passing another rider on the inside, and had to leave his usual line round the corner. Getting into a rut he developed the speedman's wobble, and fought his machine manfully for upwards of 200 yards down the next straight; at last the front tire left the rim, and he was pitched 30 yards, falling on his head. He broke both legs and fractured the base of his skull, dying in hospital ten hours later, without ever recovering consciousness; he was a young Coventry tester, and leaves a widow and a child. This mournful smash cast a gloom over the rest of the race.

Meantime Wood had got his water joint taut, and was riding like a devil let loose from hell; the Scott open-frame with low central weight holds the road like a postage stamp, and he could take corners fast without cutting out, lying over at an angle of 40 degrees, where other riders had to switch out, and slow right down. His corner work was terrific to behold. Reed had an inlet valve head break off in his back cylinder, and it behaved in weird fashion; it went plump through the piston, and the connecting rod caught it and sent it flying out like a bullet through the cylinder wall.

Hopeful Outlook for Indians

ABBOTT was now the sole hope of the Rudge team, and with three Indians in the first five, and all going well, we began to prepare our farewells to the graceful silver trophy, which looked like gracing Madison Square Garden next show time. Lap 5 (187½ miles) ended thusly:

	H.	M.	S.
1. Alexander, Indian	3	51	44
2. Abbott, Rudge	3	52	13
3. Wood, Scott	3	55	22
4. Franklin, Indian	3	56	52
5. Sirett, Indian	3	57	20
6. Cocker, Singer	3	59	24
7. Sheard, Rudge	4	3	9
8. Brown, Indian	4	5	24

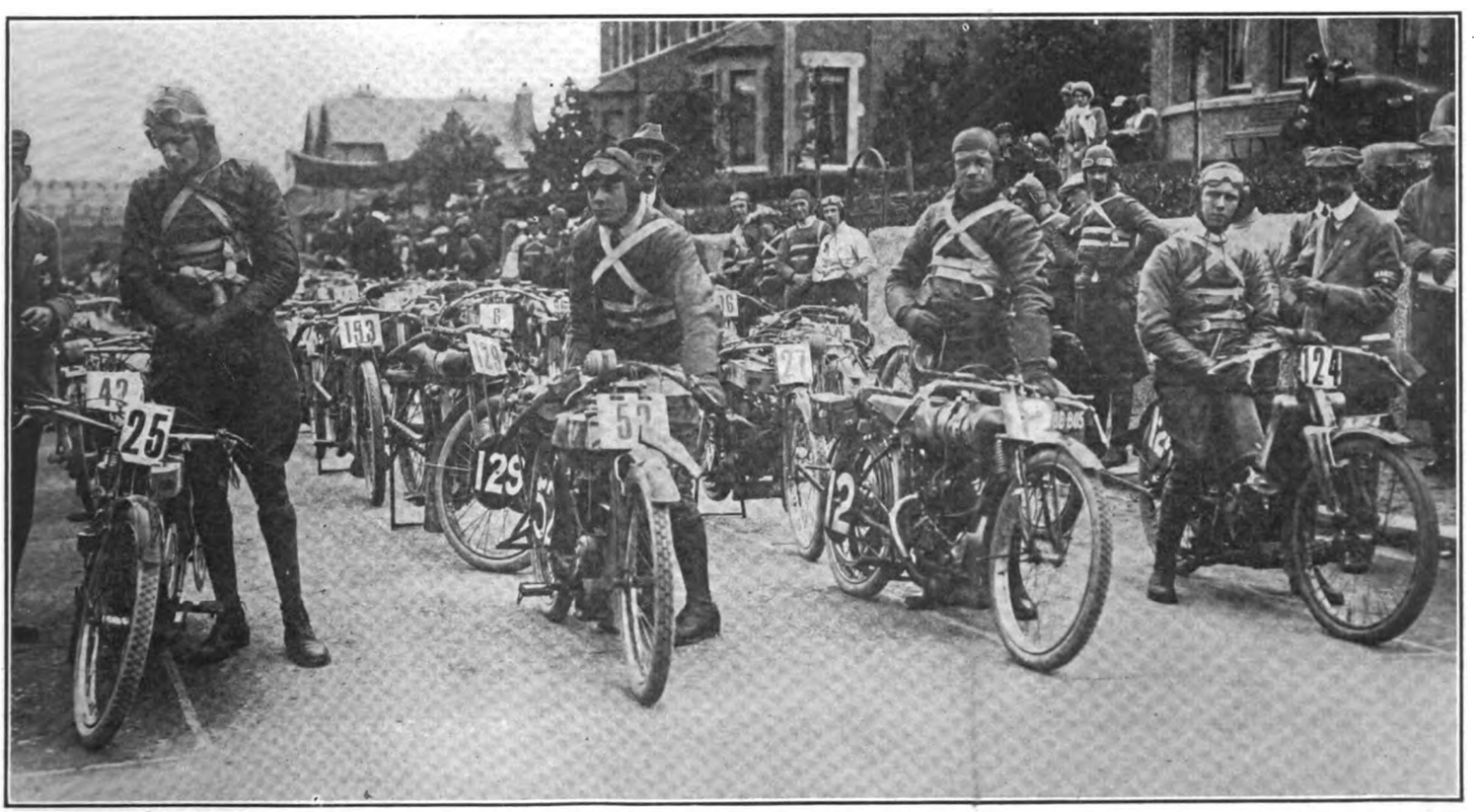
In the sixth round it became plain that the Scott was not yet done with. Wood rode with a dash and deviltry that put everybody else in the shade. His machine was no faster—perhaps not so fast—as the Rudges and Indians along the easier sections of the course, but one had only to watch him on corners to see that he was out to win, and likely to win. He got his wheel in front again, and there were only seconds between him and Abbott and Alexander. At 225 miles the positions were:

	H.	M.	S.
1. Wood, Scott	4	40	23
2. Abbott, Rudge	4	40	34
3. Alexander, Indian	4	40	55
4. Franklin, Indian	4	45	45
5. Cocker, Singer	4	46	37
6. Sirett, Indian	4	51	17
7. Sheard, Rudge	4	56	12
8. Moxey, Zenith	4	57	24

It was really a question now of who was due for a replenishment stop at one of the fuel depots; there were two official depots, and so few people knew whose tanks were full, and whose supplies were failing As it turned out, both Abbott and Wood had recently filled up, and Alexander's forward running was discounted by the fact that his tanks were nearly dry. Moreover Wood had a little more power up his sleeve. The men tore round the last 37½ miles, and there was mourning at Ramsey depot when Alexander rounded the corner slowing down and signalling to his attendant. He was very smart, getting oil and petrol on board and being off again in 22 seconds dead, but, as it turned out, even this stoppage did not lose him the race.

Abbott's Narrow Escape

ABBOTT knew he was there or thereabouts, and he dropped off the mountain summit at the speed of an aeroplane which has burst in an attempt to break the altitude record. In fact so fast did he go that he overshot one of the corners, coming up too fast, and seeing it meant death to turn at such a pace. So he charged down the byroad with his brakes spitting sparks, leapt off, lugged his machine round, and tore back on to the course. As it proved, this blunder just lost him the trophy, though Wood, curiously enough, did exactly the same thing at another corner on the very same stretch of road. However, Abbott passed the winning post by himself, and the



Start of Senior T. T. Race. Note How the Contestants Are Togged for the Long Grind Over the Treacherous Isle of Man Course.

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crowd, hastily adjusting the net times, made out that if Wood arrived within a minute and a half he would win.

The eternal seconds ticked slowly away when a tiny dust cloud was seen swooping down off the mistclad heights. Bigger and bigger it grew, faster and faster it came, till at last with the two-stroke engine screaming like a soul in torment at incalculable revolutions the Scott flashed past the post just on the stroke of time, and a confused hub-bub broke out, for only the officials could say whether the Rudge or the Scott was first. The signal presently emerged from the chronometer box that the Scott had won by *five seconds*—truly a thrilling finish to a thrilling race. The official times of the first eight men were as follows:

	H. M. S.
1. Wood, 3¼ h. two-stroke Scott	5 26 18
2. Abbott, 3½ h. Rudge	5 26 23

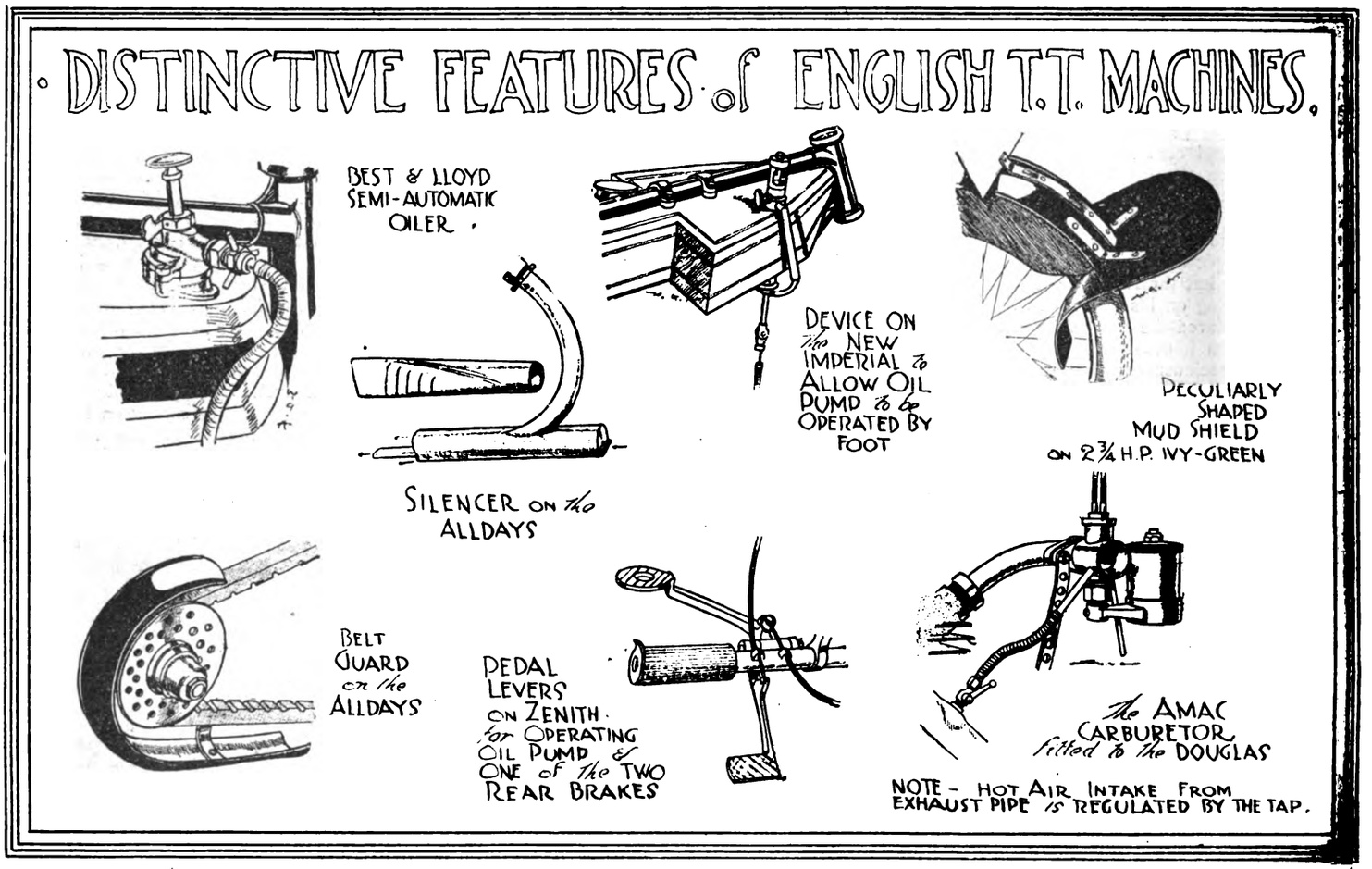
team prize for regularity of running, despite the fact that the secured 3rd, 4th, 10th, 14th, 16th, 24th and 26th places with only eight starters. The team prize went to the Rover Company, who entered three machines, none of which were ever formidable and finished 15th, 19th and 28th, respectively. This anomaly is due to the asinine regulation requiring entrants for this prize to nominate a particular trio of riders.

Actually the Rover team was the only nominated trio to finish, badly as they performed. The Rudge luck was also cruel; not one their large team suffered any stoppage other than those connected with tires, and they were undoubtedly the speediest and most reliable entry in the race; yet, as the lap times show, after bad tires had outed their four best riders, another Rudge man forged ahead and was only beaten through a tiny error of judgment within two miles of the winning post. This is

machine leading two Douglases by a few seconds. Mason was not expected to last, as a bad smash in practice had rendered him unfit to compete. He was vomiting over his handlebars during the race, and was literally delirious at the finish, and had to be parted from his machine by force and taken to hospital. However, he kept going for the second lap on Wednesday after which the leaders were left very close, viz.:

	H. M. S.
1. Mason, N. U. T.	1 41 58
2. Bashall, Douglas	1 42 3
3. Newsome, Douglas	1 42 30
4. Heaton, A. J. S.	1 43 33

During Thursday's rest Mason received medical attention, and was permitted to start on Friday, though few people expected that he would be equal to four more laps at a gruelling speed. Bashall soon had a tumble,



3. Alexander, 3½ h. Indian twin	5	30	11
4. Franklin, 3¾ h. Indian twin	5	32	4
5 Cocker, 3½ h. Singer	5	32	13
6. Sheard, 3½ h. Rudge	5	42	27
7. Moxey, 3½ h. Zenith	5	45	42
8. Garrett, 3½ h. Green	5	50	49

Other Indians to finish were Noel H. Brown, 10th, 5.56.57; S. George, 14th, 6.4.21; O. G. Braid, 24th, 6.33.33; J. F. Sirett, 16th, 6.7.49, and J. R. Alexander, 26th, 6.50.11. So apart from their champion Godfrey's mishap, the entire Hendee team were placed, and three of them looked very like winning in the middle portion.

Indians and Rudges in Hard Luck

TWO TEAMS suffered rather cruel luck; the Indians in that they were not awarded the similar to the Indian luck with tires three or four years ago. The winner had never competed in any race or trial before—he is repair foreman at the Scott works, and was put up at the last minute to ride the spare machine built for the team.

The Junior Race

THE 350cc. event was almost equally exciting, and its early stages witnessed a great slaughter of champions. The race was expected to lie between the Humber and Douglas teams, but the Humbers were never in the race at all, and the Douglas machines were beaten by a dark horse after a close finish. Two of the Douglas champions never got further than the first bad corner, and the first lap saw Hugh Mason on a Jap-engined N. U. T. and Mason and Newsome came out from the crowd by themselves to contest a most interesting duel. On the third lap Newsome led by 64 seconds. On the fourth lap Mason was only 10 seconds astern. On the fifth Newsome had drawn away again by 76 seconds, but on the sixth and last lap Mason beat all records for the 350cc. race by lapping in 49 m. 32 s. (equal to over 45 m. p. h.) and the two finished so close together that only the timekeepers could adjust the net speeds and say who had won. It proved that Mason had been 46 seconds faster over the complete distance, and he was thus awarded a very grim and plucky victory. He collapsed at the winning post, and had to be carried off the course and put to bed. Pluckier riding than Mason's has seldom if ever been seen in an English race.

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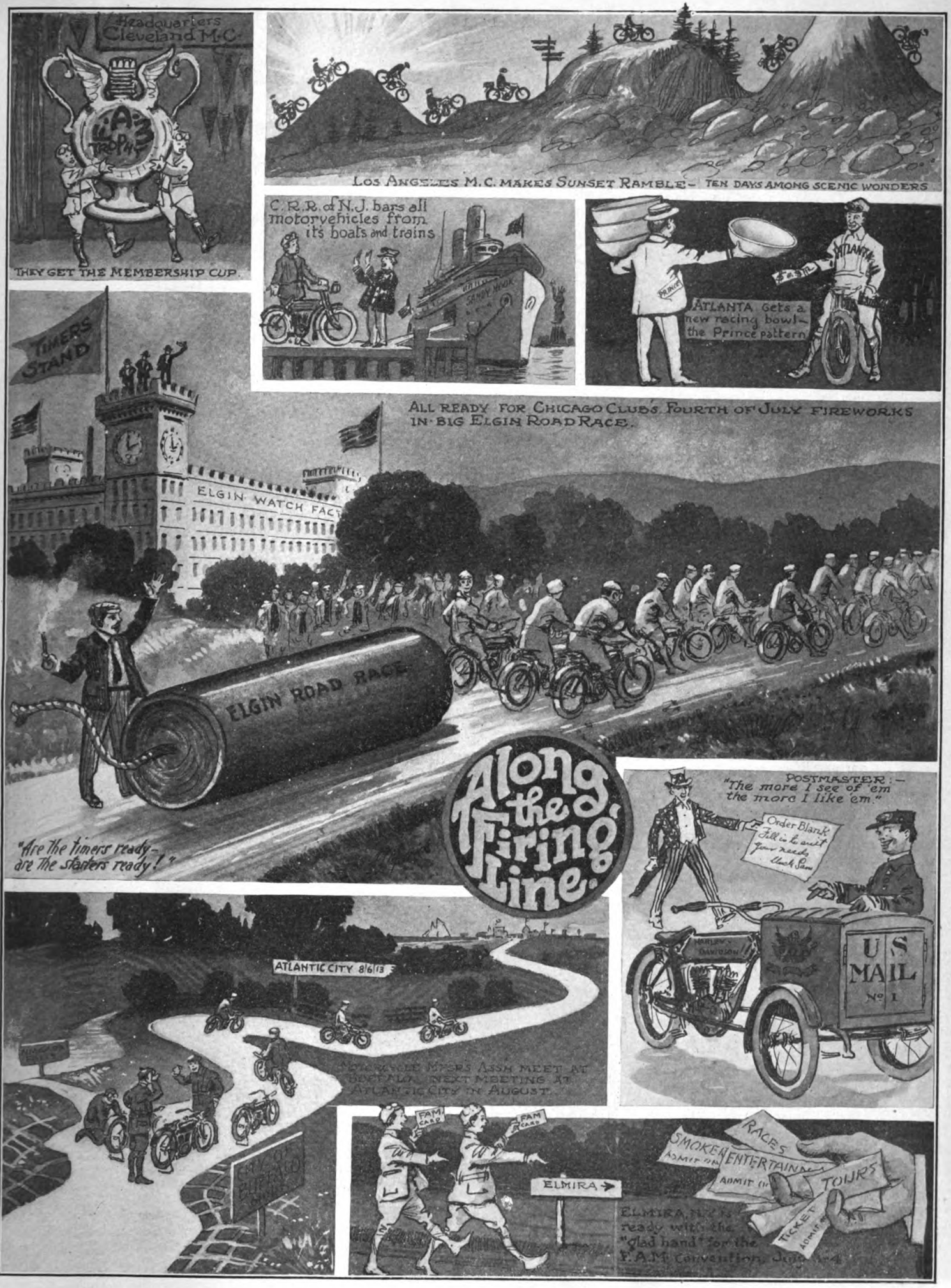

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LATE reports from Elmira boosters and from State Commissioner J. A. Hall and his lieutenants are to the effect that all is in readiness for the opening of the first New York State F. A. M. convention in Elmira on July 4. Committees have been working at top speed for the last ten days and as a result the assembly plans have been given wide publicity. Arrangements have been made for two general tours to the convention city, one from Buffalo and the other from New York City, and two shorter trips—from Hornell, to the west of Elmira, and from Binghamton on the east.

It is the intention to have the Lockport and Niagara Falls motorcyclists meet in Buffalo on the morning of July 3, leaving their respective towns at 6 o'clock so that an early start can be made on the trip across the state. They will pass through North Tonawanda on the way to Buffalo, at which point they will have traveled approximately 44 miles. There are two clubs in the Bison City, the Malta M. C. and the Buffalo M. C. From Buffalo the route leads to Batavia (total mileage from start, 81.7), to LeRoy (91.7 miles); Caledonia (99.2 miles); Scottsville (107.2 miles) to Rochester, the dinner stop, (118.2 miles). From Rochester the party will proceed to Canandaigua (147.8 miles); Geneva (164.5 miles); Seneca Falls (175 miles) to Auburn, where it will meet the division from New York and Albany.

New York motorcyclists who wish to make the full trip on their machines will be called upon to start at 7 a. m. on July 2. Otherwise they may go to Albany by the night boat and be prepared to start westward across the state early on the morning of July 3 with the riders from Albany and vicinity. Those who use their machines will travel the following route: Mt. Vernon, Tarrytown, Ossinning, Peekskill (Middletown and Newburgh riders will join at Fishkill Landing); Poughkeepsie, Rhinecliff (noon stop); Hudson, Kinderhook, Albany (night stop). Leave Albany at 6 a. m. July 3 for Schenectady, Amsterdam, Little Falls, Herkimer, Utica, Rome, Oneida, Syracuse and Auburn. From this point the joint squad will ride southward to Ithaca, where it is expected that a large delegation will be picked up. The touring party will then proceed to Horseheads, just to the north of Elmira, where it will be joined by the squads from Hornell and Corning to the west, and riders from Binghamton, Owego and smaller towns to the east. When all the tourists are rounded up in Horseheads the triumphal entrance will be made into Elmira.

The program in Elmira will open on the evening of July 3 with an "enthusiasm parade" by local riders, and any visitors from nearby towns who may be on hand. Following the parade a band concert will be held in one of the parks. On the morning of July 4 the entire Elmira club will act as a reception committee, and visiting riders will be escorted to the clubrooms. The Elmira M. C. requests that clubs or separate squads of riders that cannot arrange to join the main touring divisions give notice in advance so that a delegation may be sent out to meet them as they approach the convention city.

On the afternoon of the Fourth there will be races at the Maple Avenue Driving Park, the program including a novice event, a two-mile state championship, a professional race and a whirl for amateurs. In the evening there will be a big parade, with special floats on sidecars and other interesting features, and later there will be a "get-together" session and a smoker under the club auspices. The convention proper will be held on the morning of July 5 at City Hall. On the afternoon of the fifth visitors will be escorted through the extensive plant of the Eclipse Machine Company and later there will be races, with the events arranged as on the previous day, except that there will be a one-mile state championship instead of a two-mile championship event.

On the evening of July 5 there will be a "big feed" at Cold Brook Cottage, and this, with incidental entertainment features, will keep the visitors interested until it is time to flag the proceedings for the night. On the following morning the convention will be continued, if an adjournment is found necessary from the fifth, and if not there will be a sightseeing trip around Elmira and into the picturesque suburbs. On the afternoon of the sixth the Elmira club will escort the visitors on a trip through Watkins Glen, and this outing will close the official program.

Melodigrand Player Piano to Be Awarded in New York State Membership Contest.

Large posters have been sent to every club in the state calling attention to the plans and requesting attendance, and a beautiful 50-page souvenir program has been prepared, containing facts relative to the convention and considerable data concerning Elmira.

A handsome loving cup will be awarded by the Elmira M. C. to the club sending the largest number of representatives, pro rata, and a medal will go to the member who brings in the most F. A. M. memberships during the convention. In addition, each rider who joins the tours to the convention city will receive an F. A. M. pennant, with the compliments of MOTORCYCLE ILLUSTRATED.

During the convention State Commissioner Hall will outline plans for an extensive membership contest in which the prize will be a Melodigrand player piano, which is being donated by Henry and S. G. Lindeman, Fifth avenue at 142d street, New York City, through Mr. Hall. This award is undoubtedly the most costly and attractive ever offered for a contest of this kind, and that it will result in unprecedented activity on the part of clubs and individual riders throughout the state may be taken for granted. All the regulations have not been decided upon, but it is the understanding that the contest will continue until the first of the year. When the plans have been threshed out at the convention a full statement of the conditions will be prepared and given wide circulation, so that all affiliated clubs in New York State may start on an even basis.

State Commissioner Hall announces that riders of the Metropolitan District who cannot get away from business before the eve of the fourth, and who may not wish to go to Albany on the night boat, can make the trip direct to the convention city by train, leaving the Erie depot, Jersey City, at 1 a. m. on the fourth. Arrangements have been made to have special Pullman cars attached to this train for F. A. M. members, but in order to justify this procedure it will be necessary for clubs and individuals to communicate with Commissioner Hall at once. This train will make the following stops: Middletown, 2:42; Port Jervis, 3:24; Deposit, 5:41; Susquehanna, 6:19; Binghamton, 7:06; Owego, 7:44; Waverly, 8:13; Elmira, 8:40.

Those who ride their mcahines to Elmira will observe a 17-mile-an-hour schedule, and

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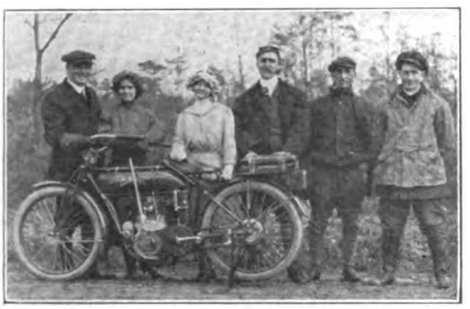
will be counted out and will not be eligible for any of the special prizes during the convention program.

Special emphasis is placed upon the fact that all motorcyclists of the state are invited to attend the assembly. Riders who are not affiliated with clubs may join some club for the trip or make up separate squads for the run to Elmira. Everyone will be welcome, regardless of club affiliations, and it is confidently expected that there will be a large attendance of unattached riders. The main touring squad will arrive in Elmira at 10 a. m. on July 4 and the fun will begin at once.



AT THE left in the photograph appears C. A. Van Doren, Flying Merkel agent in Atlantic City, N. J., and the other members of the party are friends who have accompanied him on a run westward from the coast into the pine tree district.

ON TRANSCONTINENTAL TRIP

OTTO BHEND, representing the San Diego (Cal.) branch of the Y. M. C. A., is riding from his home to New York, distributing California advertising material en route.

MORE AMENDMENTS

Chairman Thornley Will Propose Change by Which President of F. A. M. Would Be Chosen by the Directors.

CHAIRMAN J. P. THORNLEY, of the F. A. M. Competition Committee, announces that he will present at the coming convention amendments to the Federation constitution and by-laws which will provide for the election of the president of the national body by the Board of Directors instead of by the delegates to the assembly.

This does not imply that a candidate for the presidency must be a director in order to be eligible, but simply that the election of the chief executive will be facilitated through having the selection made by the directorate instead of the delegates at large. As soon as the official was elected, under the proposed amendments, he would automatically become chairman of the Board of Directors, and would be so designated.

COLUMBIA CLUB RE-ORGANIZED

AT A re-organization meeting of the Columbia Motorcycle Club, of Columbia, S. C., Dr. Hoefer was elected president; K. W. Hollingsworth, vice-president; George M. Thayer, secretary-treasurer; S. F. Habenicht, assistant secretary-treasurer, and Charles W. Cochrane, captain. The club has made arrangements to hold a race meet on the South Carolina Fair grounds track on July Fourth. This speedway is a one-mile circuit and is being put in good shape for the meet.

A PRINTING company of Marion, Ind., has engaged five motorcycles to take the census for a directory which is being prepared.

THEFTS IN INDIANAPOLIS

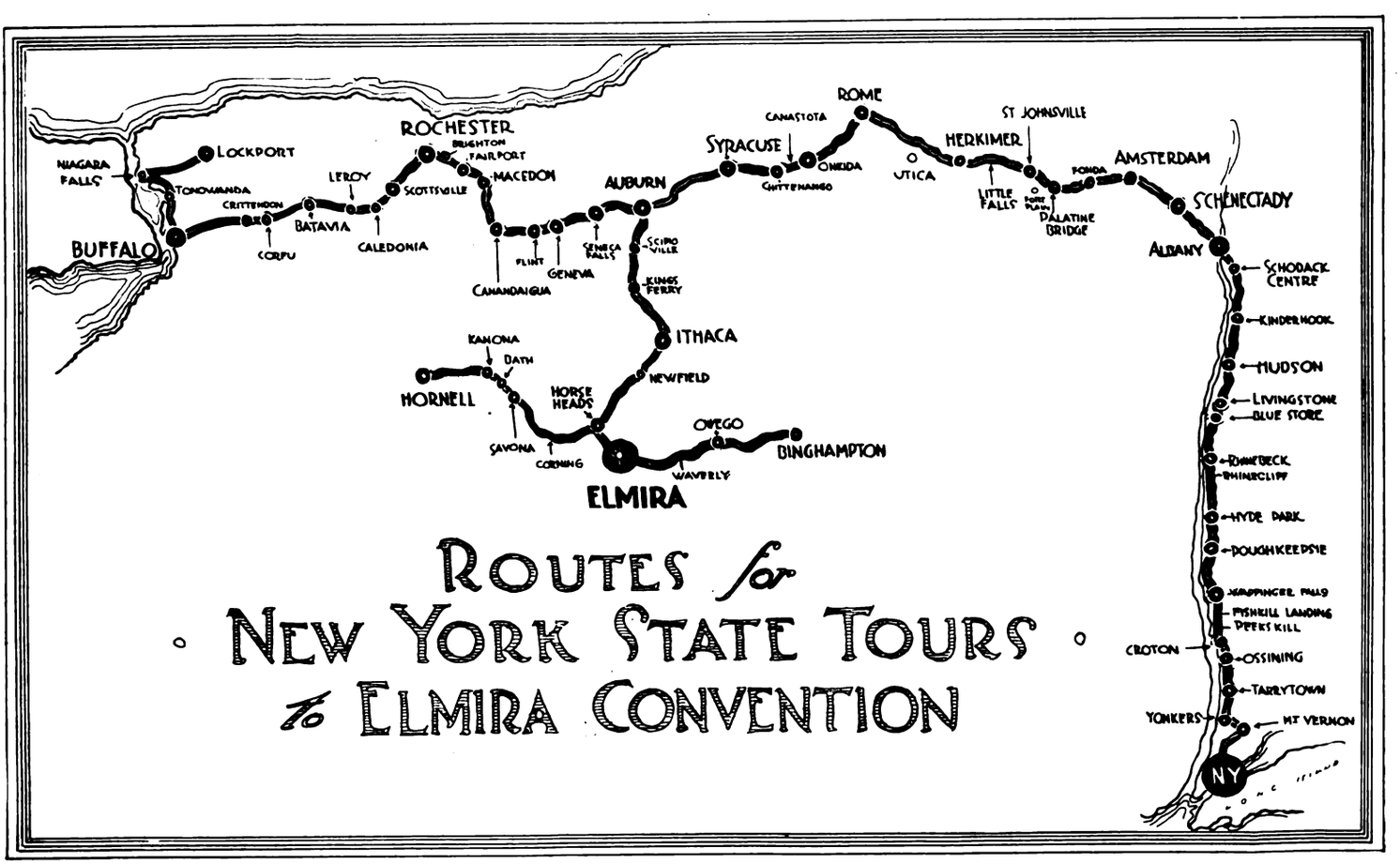
MOTORCYCLE thieves found a lucrative field in Indianapolis during the recent Speedway events. Four machines were stolen and no trace has been found of them. The police were notified immediately and the Indianapolis M. C. sent out a searching party. Machines belonging to R. H. Sturm and O. Hammel were taken from in front of the club headquarters. The numbers of the machines, all of which were Indians, are: 72D024, 75D430, 88E092 and 74E751.

RAY WATKINS and Ben Torres, riding alternately at San Jose, Cal., recently covered 346 miles on a motorcycle in seven hours. Not a single repair, replacement or adjustment was made to the machine during the ride.

IN THE accompany photograph appear some of the members of the LaPorte (Ind.) M. C. who participated in a recent outing.

FIRST RUN TO ELM GROVE

ON THEIR first run, members of the recently organized Wheeling (W. Va.) Motorcycle Club rode to Elm Grove. Their route included the towns of Bridgeport, Martins Ferry, Bellaire, Benwood, and Moundsville.



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Strong Line-up Assured for Elgin National Road Race

Chicago Motorcycle Club Expects One Hundred Starters In Big July Fourth Event And Much Interest Has Been Aroused In Trade Teams—All Is In Readiness For Starter's Gun.

REPORTS from Chicago are to the effect that 100 of the most daring speedsters in the country will start in the Elgin national road race, to be staged under the auspices of the Chicago Motorcycle Club on July 4. One week after the entry blanks were ready forty-eight applications had been received. The Chicago club has raised $15,000 to carry through its plans, and there is every reason for believing that the program will break all records for similar undertakings in this country, and rank in interest with the Tourist Trophy classics in England.

There will be two classes, professional and amateur. The professional race will be for 250 miles, for stock machines of 61 cubic inches displacement or under. Three cash prizes are offered; $500, $250 and $100, in gold. The amateur race will be for 174 miles, and the winners will receive $250, $125 and $75, for first, second and third places. The professional and amateur races will be run at the same time.

The Elgin course will be guarded by state militia and it is expected that 100,000 persons will view the contest, especially because of the fact that it will be the first national road race to be held in America. The course is 8⅓ miles long, and with 100 riders in action at the same time it is argued that there should be plenty of excitement.

Several of the leading factories have entered teams, and it is evident that the struggle between these representatives of the manufacturers will be a desperate one. The Indian team will consist of Charles Balke and Ray Seymour, both speedsters of national reputation; Charles Gustafson, the 24-hour record-holder, and E. G. Baker, the Indianapolis flyer, who is regarded as one of the most likely candidates for the individual honors. Baker has just completed a tour of 14,000 miles and is in fine condition for such a test as the big race will impose.

Another team that is certain to be heard from is the "Yellow Pup" quartet. Chairman Hill, of the Contest Committee, has received a telegram from the Miami Cycle & Mfg. Co., of Middletown, Ohio, naming the riders who will mount Merkel machines in the big event. The team will consist of L. S. Taylor, of Middletown; Ray Snyder, of Columbus; Ray Bowser, of Chicago, and Herman Sill, of Cleveland.

Taylor is known as the 100-mile dirt track champ, and be-in ga seasoned rider he is expected to give an excellent account of himself throughout the long grind. Bowser is one of the star riders of the famous Short Grass tours, and is certain to put up a daring exhibition. Snyder will probably be the youngest speedster in the race. He is only seventeen years old, but has established such a reputation that the Merkel folks have seen fit to pit him against the nation's best. He will ride under the colors of the Columbus M. C., and a trainload of Buckeye speed fans will go to Chicago to see that he does not lack rooters. Sill is another seasoned roadster who has put enough miles behind him to make the most of every opportunity that presents itself on the Elgin course.

Plenty of Team Rivalry

The Excelsior team is announced as follows: Leslie Allen, Danny Armstrong, Ed. Bomark and Joe Wolters. George Lyons, F. C. Raff and William L. Walsh will wear the Dayton colors, and the Jefferson team will be made up of W. G. Hamilton, Ray Comstock and Rudy Thoms. One of the latest entries to be received is from Mooresville, N. C., and is signed "Gray Sloop." This entry puzzled the Contest Committe for some time and Chairman Hill was inclined to believe that someone had worked in a yacht by mistake until he looked into the matter. Then he learned that Gray Sloop is a youngster who sprang from nowhere this year and romped off with the motorcycle championship of North Carolina. Sloop will ride a Reading-Standard machine in the Elgin race, and he is being talked of as a dark horse who is likely to spring a few surprises.

The Yale "Flying Squad," made up of Ivan Jacobs, Shorty Matthews and Raymond Ray, has entered and is looking forward to big things. Considerable rivalry has been worked up, by the way, between Ray and Herman Sill, the latter of the "Yellow Jacket" team. Until recently Ray and Sill were partners in road races, both riding Flying Merkel machines, and Sill now asserts that he is going to make his old team-mate ride the race of his life. Ray smiles and says: "July 4 'll tell the story."

A huge scoreboard will be erected directly opposite the grandstand, and it will be so arranged that the spectators will be able to tell at a glance which machine is leading at any time. Miniature motorcycles will show the exact position of each rider on the course. The Warner electrical timing apparatus will be used to time and score the contestants.

Ignaz Schwinn, of the Excelsior Motor Mfg. & Supply Company, created something of a stir among the racers a day or two ago when he announced that he would give the winner an extra prize of $100 in gold, provided he is a member of the Excelsior team. Joe Wolters, of Denver, who has been ranked among the champs for several seasons, feels that he has a strangle-hold on this purse, but his team-mates, Armstrong, Bomark and Allen have yet to be heard from.

Whipple, the Motorcycle Man of Chicago, was selected a few days ago to head the board of judges, and the other officials will be chosen kithout further delay. Great care is being exercised in chosing the officials, in view of the fact that a great deal may depend upon a technicality at any stage of the race.

At any rate, the race promises to be the biggest thing of its kind ever staged in this country, and the attendance at the course will probably suggest the big automobile cup events.

SPEEDSTERS AT DETROIT

ABOVE are shown the racers participating in the opening meet at the Detroit Motordrome. Reading from left to right they are: Hubbard, St. Louis; Gibson (captain), St. Louis; Huttinger, Detroit; Fenton, St. Louis; Milner, St. Louis; Fryckman, Detroit; Klark (captain), Detroit, and Dougherty, Detroit.

NEW RESOLUTIONS

AT THE last business meeting of the National Capital M. C., of Washington, a resolution was passed whereby the club is to pay $25 to any member in good standing who may be disabled for thirty days as a result of an accident. This is in accordance with the club's policy of adding beneficial features, it recently having adopted a plan to pay $25 for the recovery of any member's machine.

Two amendments to the by-laws of the club were offered by Fred Mills, financial and recording secretary, one being that after July 1 any member who pays dues semi-annually in advance shall be charged only $4 a year.

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NEW YORK - NEWARK N. J. ROUTES

BY ROBERT BRUCE

BETWEEN the west front of the Hudson river and Newark, the largest city and most important route center in New Jersey, is unquestionably the heaviest-traveled section of its area in the United States. Except that portion which goes across Staten Island, practically all of the road traffic from New York, New England and Long Island to the Jersey mainland uses one of the two options shown on the accompanying map between Manhattan and Newark, in order to get onto the through highways leading west and southwest from the latter city.

The motorcyclist coming into New York for the first time is usually surprised to discover that there is not now, and never has been, a thoroughly good highway over these few intervening miles. Primarily this is due to the meadows, which extend from the western edge of Jersey City most of the way to Newark; this cheap, undrained land has been a dumping ground from both sides. Then there has been a lack of co-operation between Jersey City and Newark, which are in two different counties (Hudson and Essex)—and at least some lapse of State pride in failing to provide a dignified entrance to the metropolis.

So the tourist gets a poor first impression of New Jersey when starting out from these Hudson river gateways, though once beyond the suburban district, the roads of the State open up surprisingly in every direction. Conditions now are much better than they were three or four years ago, and are more likely to grow better rather than retrograde from now on.

"Plank Road" vs. Turnpike

As the map shows, there are two nearly parallel routes between Jersey City and Newark—the Turnpike and the "Plank Road," located an average of a mile apart. For several years past the Turnpike has been the chief dependence of all road travelers; while never good throughout, it was always open, so tourists bumped over its uneven stretches and made the best of it, grateful that there wasn't more of it. Gradually, however, what was formerly the "Plank Road"—a name that will probably stick to it long after the last plank has disappeared—is being made the better of the two.

So far as it is completed and newly surfaced, it is in fine condition, but unfortunately both approaches are still incomplete; and these make worse riding than any spots of equal length on the Turnpike. The motorcyclist who would rather bump over a few miles of uneven, badly-pitted road than encounter two pieces of unfinished work will prefer the Turnpike; others will take the "Plank Road," making perhaps better average time on account of the speed possible on the completed stretches.

The map shows the principal connections into both, from Weehawken and Jersey City, the two most-used exits from middle and lower Manhattan. A rider coming from Brooklyn or starting from below Twenty-third street, will ordinarily find the Pennsylvania R. R. ferries from Cortlandt or Desbrosses street the more convenient; but from Long Island via the Queensboro Bridge, or from above Twenty-third street, the West Forty-second street ferry to Weehawken is more desirable. There are several turns in each case, all made clear by the detail on the maps; both lead into the Hudson County boulevard, the main north-and-south artery, from which one enters the Turnpike by Newark avenue or the "Plank Road" by Communipaw avenue.

All other things being equal, the tourist should take the "Plank Road," to avoid the most nauseating smells ever allowed between two centers of large population. Years ago extensive stock yards were established on the meadows near this road, and nearby a fertilizer factory. One is positively sickened by the nearness and vileness of the odors from these establishments, but a tourist traveling over the Turnpike has no way to avoid them.

Features of Construction

Having supposedly decided in favor of the "Plank Road," the tourist will follow down the Hudson County boulevard, passing Newark avenue (connection for the Turnpike), and crossing the viaduct above the Pennsylvania R. R. tracks. At West Side, or Hudson Park (see the map), a right turn is made, going to and turning left at the fountain, running out of the park onto Communipaw avenue. Again turn right, following the car-tracks over several blocks of stone pavement; then the trolleys come to the center, leaving on the north side a smooth surface for pleasure vehicles, and on the south side a granite block surface for the thousands of trucks that haul heavy loads back and forth.

This is an excellent arrangement, especially the attempt to divide the traffic, and provide a different surface for the two principal classes of travel. In fact the present condition of the Turnpike is due more to the constant mixed traffic than to the want of sufficient money to spend upon it. One interested in these subjects will also note the substantial protecting walls, where needed, and especially how the trolleys are separated from the road on both sides, saving many a collision; on the Turnpike the car-tracks are on the same level as the road, and accidents have been numerous.

The work on the Newark end is less complete than on the Jersey City end; and some of the planks that helped to give the road the name that still sticks to it may yet be seen. They were never meant for rubber tires, but having gone so far, it is better to go over them than turn back. It is certainly a pleasure to spin over the two bridges across the Hackensack and Passaic rivers; both are

Line-up of Harley-Davidson Riders in Marlboro, Mass., Where They Were Tendered a Banquet Recently by C. C. Wilber, Harley-Davidson Agent.

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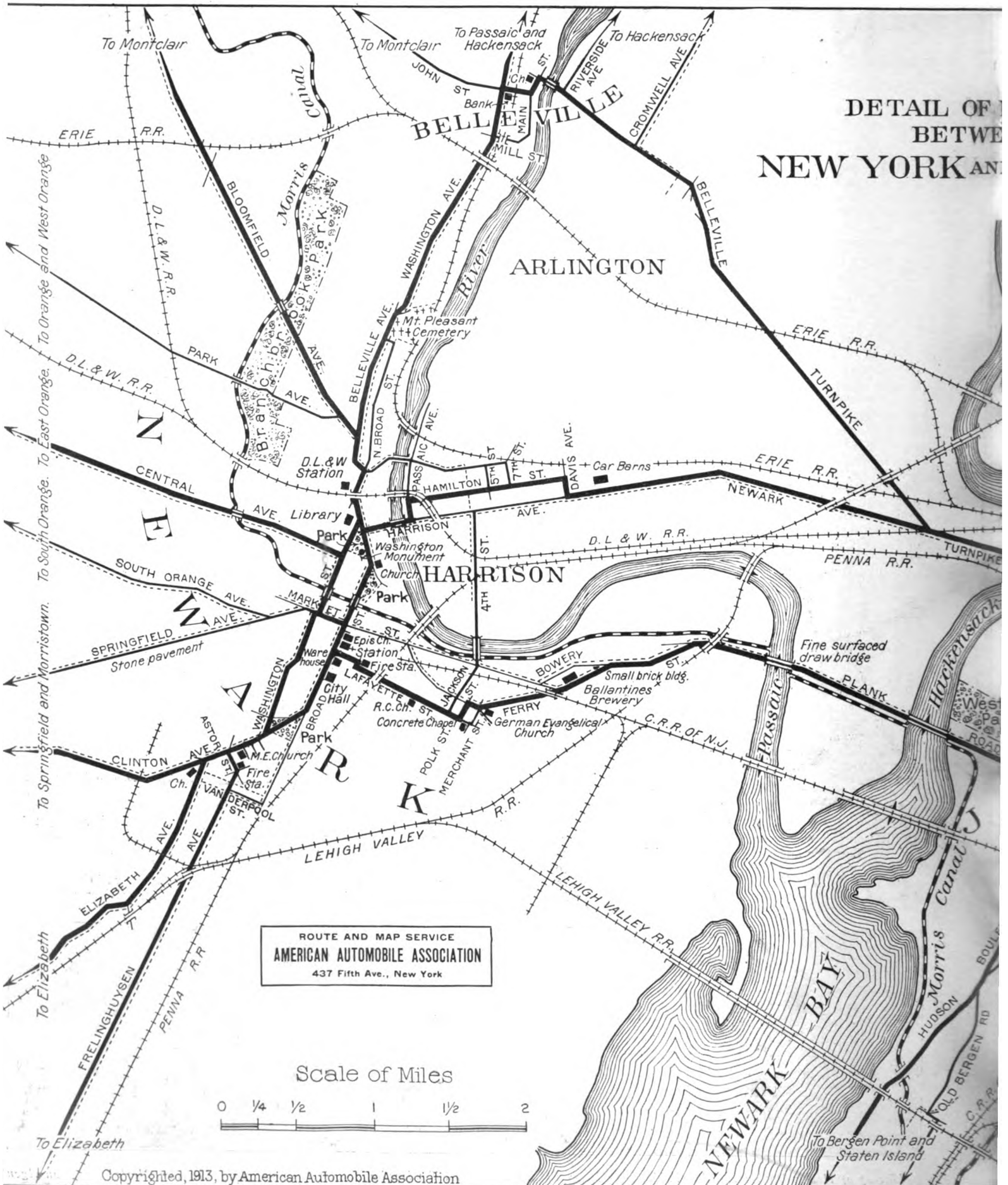

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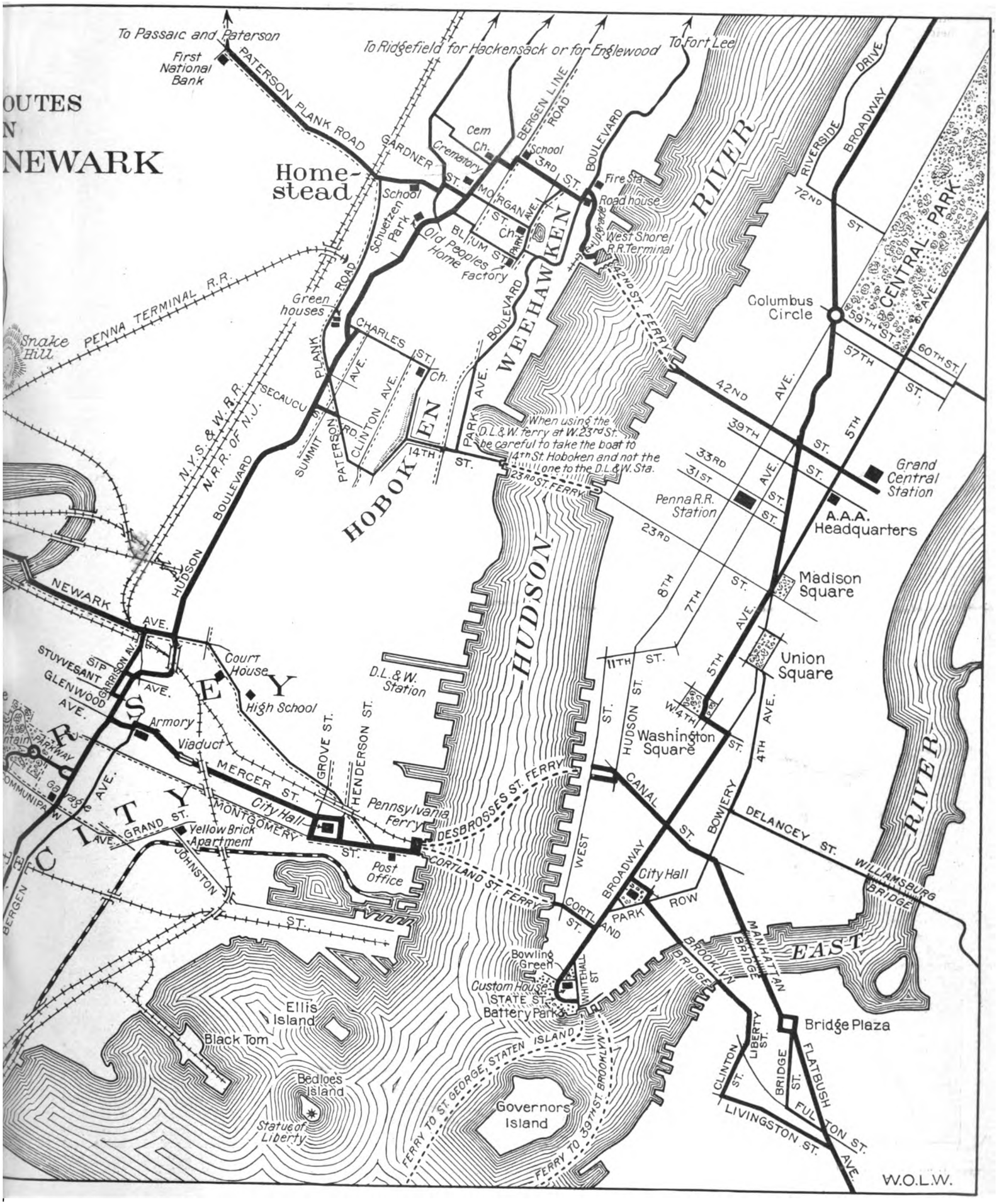

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smooth as a floor, and in striking contrast to their predecessors of bicycle touring days.

On the Newark End

You run off the "Plank Road" into Ferry street, Newark—the name suggesting the old-time highway from Philadelphia, Trenton and New Brunswick, which led over this same route to the ferry across the Hudson near Cortland street. Unfortunately, it seems necessary to have carried this important route through the factory and foundry section of Newark, making a slow, wearing ride over the stone-block pavements invariably found in such localities. Perhaps in the course of time a new connection may be developed around this "ironbound district" (as it is frequently called by its own inhabitants); but at the present time it is necessary to make the best of it, and save tires as much as possible by a moderate speed.

The first turn off from the stone pavement worth while is the one shown on the map through Polk street to Lafayette street; it will be necessary to watch for this, because the sign at the turn is inconspicuous. It is the first left-hand street after passing St. Stephan's old German church, also shown on the map; by turning left on Polk and right at the end of Polk street on Lafayette street, several blocks of asphalt are had. Then there is a fairly short stretch of stone-block pavement to the end of Lafayette street at Broad, a short distance south of the crowded business center, which this route avoids.

Nearly every tourist who has ridden between New York and Newark in the past is already familiar with the Turnpike; if not, all one needs to know about it is shown on the map. It has no novel features, and with the completion of the approaches to the Plank Road (probably several months hence), the latter will carry the great bulk of the travel, and the Turnpike will figure only incidentally in route directions. The running titles on the map show the principal connections from each into the main routes leading west and southwest from Newark.

Remarkable Photograph of A. MacDonald, Driving Excelsior Twin and Sidecar in Recent Hill-Climb of Toronto (Ont.). Note How the Load is Distributed

Various attempts have been made to provide a practicable exit from mid-Manhattan to the Hudson County boulevard and Newark through Hoboken, but so far with only indifferent success. As the map shows, such routes would be short and quick connections from a large section of the metropolis; but while possible they are yet far from desirable.

Poor Options Through Hoboken

The locally unacquainted motorcyclist attempting same should ride down to the foot of West Twenty-third street and take the D. L. & W. boat from the *right-hand slip* to Fourteenth street, Hoboken, carefully avoiding the larger boats that leave from the left-hand slip for the D. L. & W. terminal farther down the line, and separated by even worse streets from the Hudson County boulevard.

Landing at the foot of Fourteenth street, Hoboken, go straight ahead on stone-block pavement, following the trolleys to the viaduct, which can be seen shortly later leaving the ferry. Where the car tracks branch to the right and left, continue straight ahead up the slight grade on the viaduct to the end of same at the heavy stone wall, built to protect traffic on this route. Turn left, following this upper viaduct to the end of same at the Paterson Plank Road—so far nothing to complain about.

Like all other exits, however, this has its bad features—in the form of rough stone blocks on the "Plank Road," which cannot be avoided. Were there a short, good connection from the viaduct into the Hudson County boulevard, this disadvantage would be minimized; but it is necessary to go on to Paterson avenue and through that street to the boulevard, which one who has gone over it will consider hardly worth while. Until some betterment is made in that section, the majority will continue to prefer the exits through Weehawken or Jersey City already referred to.

(Editor's note: The map which appears with this article is fresh from the press and is representative of the best efforts of the American Automobile Association to provide for tourists who have heretofore been left almost entirely to their own resources in leaving or entering New York by way of New Jersey. It is undoubtedly the most comprehensive map available for the routes involved, and as such it fully justifies the special arrangement with the Route and Map department of the A. A. A. by which we have been enabled to reproduce it at this time.)

Walt Ardens, Toronto Merkel Agent, Making Successful Ascent on a "Yellow Jacket" in Recent Trials of the Toronto Club Which Aroused Much Interest

BAY STATE'S BIG GAIN

STATISTICS from Boston, Mass., show that there were 1,097 motorcycles registered in Massachusetts, April 1, 1912, whereas the total registration on April 1, 1913, was 1,945 making a gain of 848 machines in one year.

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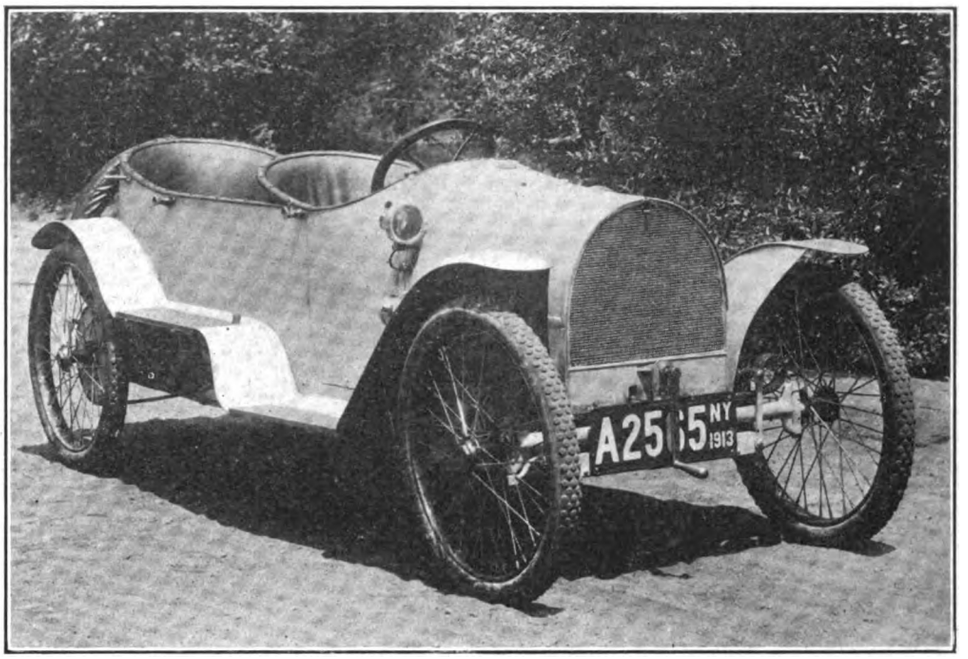
Latest "Cyclecar" Arrival Shows Some Novel Features

A NEW arrival, on cyclecar lines, that promises to become an exceptionally popular machine, is the Twombly car or motor-tandem, here illustrated. While at present fitted with an air-cooled motor, it is the intention of the designer, W. Irving Twombly, of 258 West Sixty-ninth street, New York, to employ a four-cylinder, water-cooled, sleeve-valve motor on all future cars. This motor will be silent in operation and will develop 15 horsepower, the bore and stroke being respectively 2¾ and 3¼ inches. The side-chain drive will likewise be replaced by a cardan-shaft and live axle.

While being a light car, it is by no means a toy reproduction of a large automobile, but a sound, practical vehicle. It is fitted with a selective sliding-gearset, having three speeds forward and one reverse, direct drive being on the high gear. The water circulation is thermo-syphonic, and ignition is by dual high-tension magneto. Two sets of brakes are fitted, both operating on the hubs. The springing is by cross scroll-end quarter elliptics on each corner, with balance-members to compensate for all inequalities of road, etc. The wheels are 28 inches in diameter, fitted with 6-gauge spokes and 3-inch studded tires are standard. The wheelbase is 96 inches, and the tread 36. The two seats are set in a substantial wood-panel body, colored French gray with nickel trim. A Cape cart top covering both seats can be fitted if desired, as can also a special windshield.



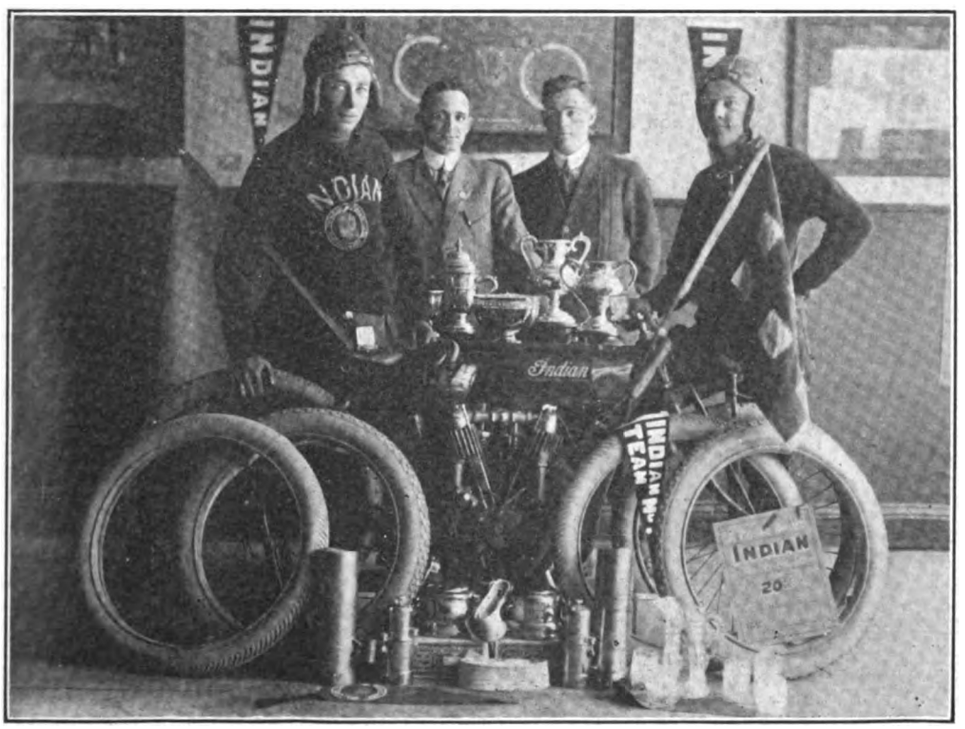
The Twombly car is priced at $350, without top and windshield. The guarantee is liberal, being for one year as regards material and workmanship, and additional to this are certificates of a speed of 60 miles per hour on the level and 35 miles per gallon of fuel. Agents' samples will be ready by September, and it is proposed to manufacture at least 1,000 machines for the 1914 season. The machine has been given numerous tests of late.

BUFFALO M. C. HILL-CLIMB

A RUN to Warsaw by way of Lancaster, Alden, Attica and Attica Center was held on June 15, by the Buffalo Motorcycle Club. Returning, the riders passed through Varysburg and East Aurora. The route covered is considered one of the most picturesque in Western New York.

GIBSON'S REPORT

INCLUDED in the last weekly report of Secretary Gibson were the following new club affiliations: Ganesha M. C., Pomona, Cal.; Sherman County M. C., Goodland, Kan.; Polonia M. C., 959 Milwaukee avenue, Chicago; Bay State M. C., Boston; West Side M. C., Springfield, O.; Newark M. C., Newark, N. Y.



Indian Team That Won Seventeen Out of Twenty Prizes at Winnipeg, Man., Recently.

STEWART-WARNER CONTEST

PROSPECTIVE motorcyclists as well as the initiated riders will find a recent announcement of the Stewart-Warner Speedometer Corporation of unusual interest. The company has started a contest wherein the contestants will have an opportunity to show their ability as judges of high-class art. They are asked to suggest an appropriate title for an expensive painting which the speedometer company has purchased. The first prize will be any motorcycle of standard make, costing $300 or less. For the three next best suggestions Stewart motorcycle speedometers will be awarded. Every motorcycle dealer in the country will be provided with copies of the painting for display purposes as well as post card reproductions for distribution. Six model D Stewart speedometers will be awarded the dealer in whose store is hung the copy of the painting which suggests the winning title. In order to make this possible all contestants, when submitting titles, should state where the picture was seen.

MERKEL LEAVES MIAMI STAFF

ANNOUNCEMENT is made that J. F. Merkel has discontinued his connections with the Engineering Department of the Miami Cycle & Mfg. Company. Mr. Merkel's plans for the future are not settled.

ON SILSBY'S STAFF

GLEN DAILY, formerly of Middletown, O., is now on the sales force of I. H. Silsby, central Ohio distributor for the Flying Merkel, with headquarters in Cleveland.

CONTRACTS have been signed for the erection of a plant for the Gordon Rubber Company, of Canton, O. The plant, which will consist of two buildings, will be located on Williams street.

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ECLIPSE

You Can't See Around A Corner

You can never tell what danger may be lurking just beyond the curve in your path. A wash-out, a partially destroyed bridge, a fast approaching railroad train, a deep ditch or any of a thousand and one hazards which the motorcycle rider must expect and for which he msut be prepared. That rider is best armed against accident whose machine is equipped with the

Eclipse

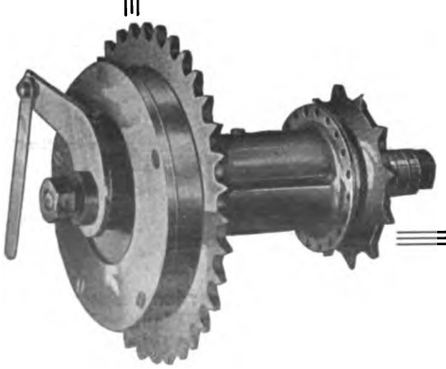
Perfection Multiple Disc Brake

Terrific gripping power, tremendous strength, marvelous durability, unfailing reliability—these features make the Eclipse worthy in every way of the title "The Brake You Can Trust."

With its 100 square inches of braking surface, the Eclipse Perfection Multiple Disc clutch is stronger, in proportion to the load, than the strongest automobile brake made.

Its six discs, each 5¼ inches in diameter, distribute the weight of a 350 lb. motorcycle so that there is a square inch of braking surface for every 3½ lbs. No automobile brake is made large enough to distribute less than 9½ lbs. over each square inch of braking surface.

What further proof do you require of Eclipse reliability?



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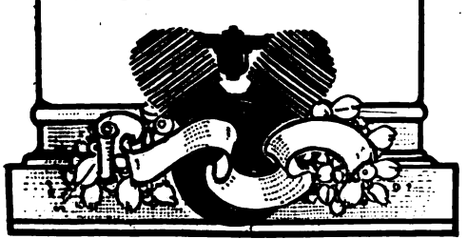
PAID CIRCULATION THIS ISSUE, 13,740.

OWING to its large circulation, it requires two full days of 24 hours each, after the last form has closed, to print, bind and mail a full edition of MOTORCYCLE ILLUSTRATED. In view also of the fact that this publication is read in more than 2,400 different cities, towns and villages in the United States, its wide distribution demands that each issue be placed in the mails not later than noon every other Thursday, the date of publication. In order to make the mails at this time, forms must close not later than 6 p. m. Tuesday, and advertising copy cannot, therefore, be handled if received later than Tuesday morning.

This applies also to text matter. Photographs should reach us not later than Monday morning preceding each date of issue. They will be given better attention if reaching us the Saturday preceding.

MOTORCYCLE ILLUSTRATED requires correspondence and subscription agents in many towns where the paper is not already so represented; we pay a liberal commission to subscription agents, and the best space rates for text-matter, drawings and photographs.



EDITORIAL VIEWPOINTS

BOTH the Indiana and Ohio F. A. M. State Conventions were well managed and well attended, notwithstanding which fact neither demonstrated the need for a more democratic form of government than the members of the Federation enjoy at the present time. In other words, the howl, which has lately gone forth from certain isolated quarters, demanding that individual members be given more authority has by no means resulted from a thorough appreciation of the wants of the general membership. Experience teaches that in an organization like the F. A. M., no matter how many and how attractive may be the opportunities afforded individual members to participate in governing a national body, very few exercise their privileges. Even among those who attend conventions, a majority can always be counted upon to prefer the entertainment program to the business sessions, and these are invariably the men who afterwards complain of "star chamber" methods, the existence of a "close corporation," "control by a chosen few," and so on *ad infinitum*.

It is our opinion that the average member of a body like the Federation holds benefits above representation. He's willing to contribute his mite per annum, but he does not feel called upon to do any more than that. Only a small proportion of riders even belong to the local clubs, and of those who are members, in each instance but a handful do the work. The others simply pay dues, and continue to do so as long as they are satisfied with the returns.

Believing that this attitude is general toward the F. A. M., it is our opinion that the organization would grow faster and accomplish more if run like a business instead of as a democracy. Let the directors be elected by the members of the districts they represent, and then have the directors appoint a chairman or business manager whose term of office would be indefinite—as long as he makes good—and whose salary would be whatever he was worth to the organization.

Once in office, this individual would shoulder all the responsibility while, on the other hand, he would be amenable to the directors only, whose privilege it would be to remove him at will, in the event of his failing to produce satisfactory results—in other words, to prove his worth and earn his salary.

The directors, in their turn, would hold office only as long as their services were desired by those whose votes elected them. At the same time, the present division of responsibility would no longer stand in the way of the development of the organization along strictly business lines. More could be accomplished with the same amount of money and, as long as each member desired benefits commensurate with the amount of his investment, there would be no complaint from any quarter.

Ultimately the Federation will adopt this or a similar plan. And then its progress will be tremendously rapid and solidly substantial. We are now obtaining valuable experience and there are indications that the time is near when we shall profit by it.

LIVING UP TO A PREDICTION

A CASUAL review of the past month will bear out the prediction, made while the year was still young, that 1913 is destined to set new marks for American motorcycledom, in sporting and social as well as trade branches. Two F. A. M. State conventions were held during June, and plans were completed for another. The Los Angeles M. C. held its ten-day Sunset Ramble, crack speedsters from all over the country were signed up for the Elgin National road race to be held July 4, at least ten endurance runs were staged, hill-climbs and social outings were held by the dozen and the board tracks have been drawing capacity crowds. All this in June, when motorcyclists are only swinging into their gait for the season. Before the leaves begin to turn in October there will be a story of progress in all directions well worth the telling.

OUR FIRST NATIONAL ROAD RACE

ONE hundred unmuffled exhausts cannonading over the Elgin course in the Chicago Club's road race should furnish something very closely approaching an old-fashioned Fourth of July celebration. Aside from the noise, however, the program will be as "safe and sane" as the club can make it, and this means a great deal. Expense has not been spared in the effort to protect both racers and spectators.

A BIG contest is fruitful not only in proportion to the number of entrants and the enthusiasm aroused, but upon a basis of wholesome and cumulative interest developed among non-riders. Serious accidents are not recruit-makers. All that human ingenuity and broad-gauge plans can do to protect both racers and spectators has been done by the Chicago Club, and it remains simply for the contestants to keep in mind that there is a limit somewhere for daring and even the best of man-made mechanisms.

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KELLY R. JACOBY

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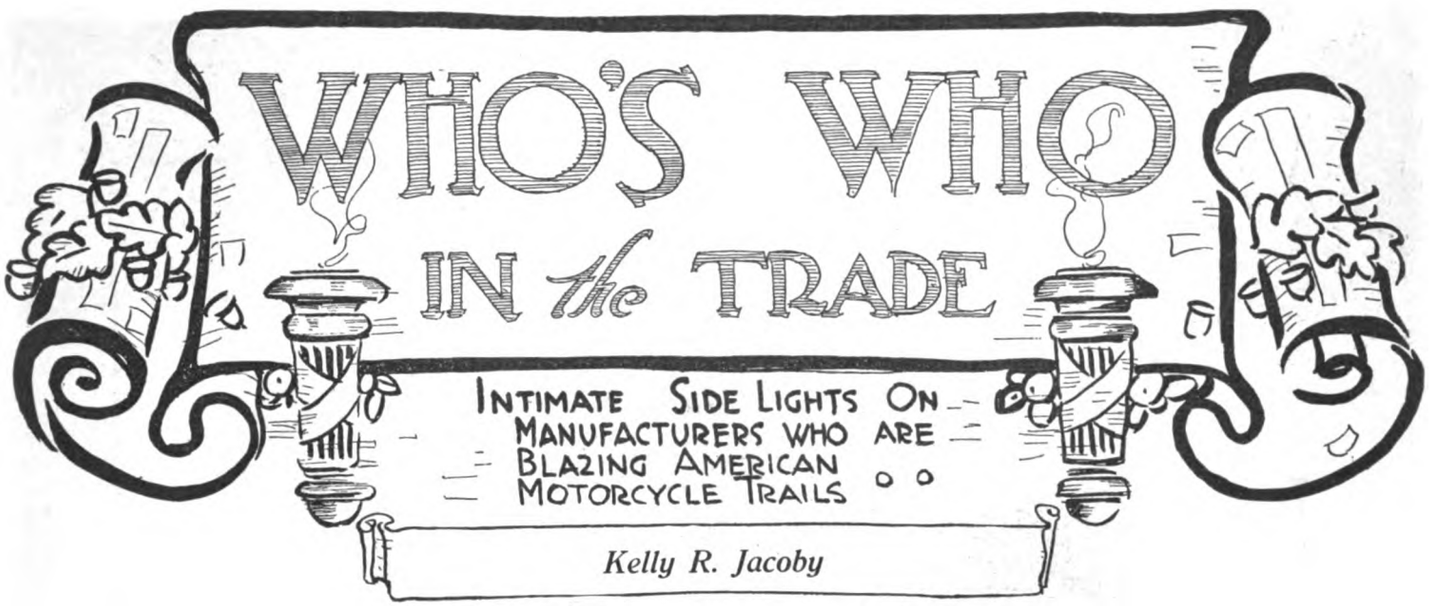

"It is the Men of Action, Not the Men of Reflection, Who Get the Joy Out of Life"

THIS motto, hanging over the desk of Kelly R. Jacoby, president and general manager for the Miami Cycle & Mfg. Co., at Middletown, Ohio, is interesting because it is so closely allied with the makeup of the man in whose office it hangs. Kelly R. Jacoby is one of the big men in the motorcycle industry, and his bigness is reflected pretty generally in the things he has accomplished. His career—from the time he started—if set forth in minute detail, would serve as a splendid example for ambitious young men.

In common with the majority, Mr. Jacoby believed that a college education was an essential foundation for a business career, and like Judge Taft and other men in the public eye he acquired that foundation at Yale. After finishing at Yale, Mr. Jacoby returned to Middletown—his home—without a very definite idea of what his life's work would consist of, although he had several plans in view.

When the Opportunity Came

It was not long before the big opportunity came, although it did not look very big at the time. The Miami Cycle & Mfg. Co., as makers of the Racycle bicycles, was started by the late P. A. Sorg. This bicycle plant was Mr. Sorg's pet project, although he had many other more profitable institutions. After Mr. Sorg's death his widow continued to run the business under different managers, more for the sake of associations than for the profit it was paying. In fact, the business was being run at a loss, and when Mrs. Sorg offered the managership to Jacoby she would have been pleased if he simply did not let the deficit become any larger. But he did better than that.

To make a long story short, Mr. Jacoby rolled up his shirt sleeves, literally and figuratively, and plunged into bicycle making. He found out just why the business was being run at a loss, and the first thing he did was to cut off all loose ends. Instead of merely cutting down a deficit, the very first year under Mr. Jacoby's management showed a nice profit, the next year a still larger one. Today the Miami Cycle & Mfg. Co. is one of the biggest concerns of its kind in the country, and within two months will have two factories, employing nearly two thousand men—all this through K. R. Jacoby's guiding hand.

A Believer in Outdoor Exercise

Mr. Jacoby is a young man, considerably under forty, and without doubt the most active official in the Motorcycle Manufacturers' Association, of which he is vice-president. When he is not at his desk, Mr. Jacoby's chief thought is to get physical profit from exercise. He pilots a big six-cylinder Chalmers like a race driver, and also knows how to ride a motorcycle—and does it sometimes. He admits, however, that he did not learn to ride until the Miami Cycle & Mfg. Co. purchased the Flying Merkel and moved the Pottstown plant to Middletown.

Mr. Jacoby is a firm believer in outdoor exercise. He is a great walker, runner and ball-player, and can box and wrestle like a champion, as some of his less athletic associates will testify. He is at this moment figuring on installing a summer gymnasium on the roof of the Middletown plant for the benefit of the officials and office employees, but some of those who have boxed a round or wrestled with him, are not so keen over the project as Mr. Jacoby himself.

It has already been stated that President Jacoby is a young man. He is more than that—he is a believer in young men, and every man under his official jurisdiction has a splendid opportunity for advancement.

Everybody around the Miami plant knows when Mr. Jacoby is in his office. From the minute that the president steps into his private office things begin to hum—and continue humming until the whistle blows at 5:30. It is surprising the number of details that President Jacoby familiarizes himself with. Not only is he a born executive from the financial viewpoint, but he knows mechanical details as well.

Perhaps one of the secrets of Mr. Jacoby's success is that he keeps in close touch with his associates. Conferences are held every day with the heads of various departments, and in this way President Jacoby always has every detail of the business at his fingers' ends.

Proud of His Organization

Although he works like a whirlwind during business hours, Mr. Jacoby believes that "all work and no play makes Jack a dull boy." One of his associates tells a story of how he was threatened with dismissal if he didn't stop coming back to the office and working at night. Mr. Jacoby believes thoroughly in work, exercise and sleep, for he knows that plenty of the latter two will produce keener minds. He is naturally proud of the Miami organization and well may he be. Apropos of this feeling of pride in the big Middletown industry he tells a bully story at his own expense.

Mr. Jacoby was at a hotel recently and after the introductions one of the men at the table turned to Mr. Jacoby and inquired:

"Pardon me, but didn't you say you were from Middletown?"

"Yes," replied the president of the Miami Cycle & Mfg. Co. and vice-president of the M. M. A.

"Which Middletown?" continued the questioner, "Ohio, New York, or Connecticut?"

"Ohio, of course!" said Jacoby.

"Oh, yes, yes, to be sure. They've got just three things in Middletown!"

"Have they?" politely interrogated Jacoby, feeling certain the man would mention the Miami company as one, the American Rolling Mill as another and perhaps one of the big tobacco plants or paper mills as the third, but with a view of hearing someone else remark about the Merkel plant its president inquired:

"Three things, what are they, may I ask?"

"Morning, noon and night!" said the man, and in the laughter that went up around the table, Jacoby heartily joined.

TWO-COUNTY MOTORCYCLE CLUB

CARL FUTTERER, Ray Menke and Joseph Esler, members of the Quincy (Ill.) Motorcycle Club, recently made a run to Mt. Sterling for the purpose of organizing a club there. They were met at Camp Point by three motorcyclists of Mt. Sterling, where the party arrived at noon. In the afternoon a meeting was held and the Adams-Brown County Motorcycle Club was formed. Ollie Jennings was elected president; Ray Menke, vice-president; R. L. Webber, treasurer; Carl Futterer, secretary, and Joseph Esler, captain.

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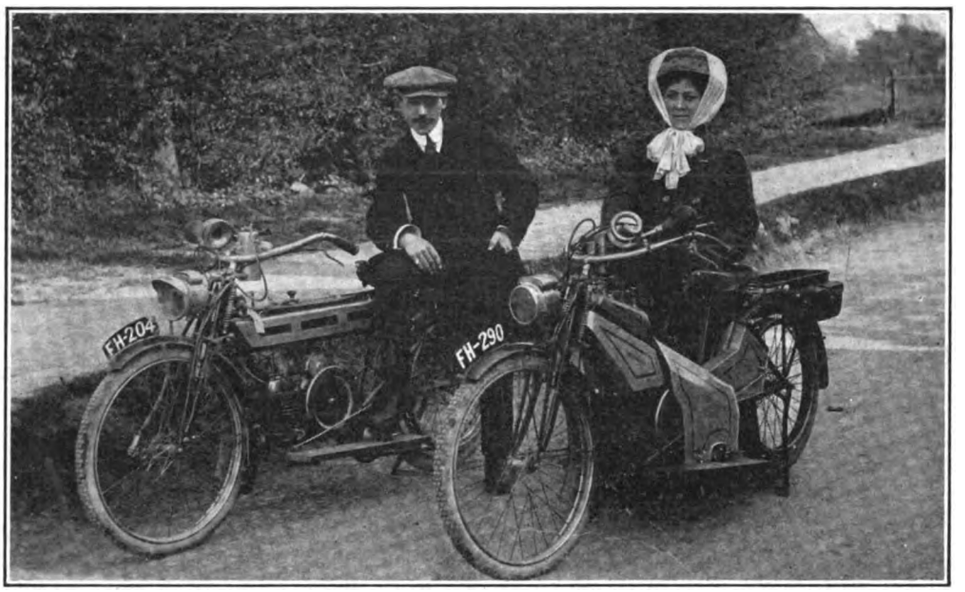
The LADY MOTORCYCLIST

By NORA HOUGH

JUDGING from my observations a great many men vote the lady motorcyclist something of a nuisance, and for some time past I have been puzzled as to why this should be so. Men riders certainly cannot hope to keep this delightful sport to themselves for all time, and in my opinion they should rejoice over the fact that their wives, sisters and sweethearts are displaying interest in such a healthful pastime. The girl who uses a motorcycle consistently and with reason benefits physically, and assumes no greater risk on the road than would attend an ordinary trip in an automobile.



Mrs. W. B. Gibb, of Gloucester, England, is the lady rider in the accompanying photograph. Mrs. Gibb is a keen Douglas enthusiast who uses her machine for daily trips over the hilly country around her home. Her husband, "also in the picture," is one of the most successful English riders in general competition. Note the shields fitted to protect the rider.

A short time ago I received an extremely interesting letter from an American motorcyclist who is quite in favor of girls joining in the sport, and who believes that we should also master the common technique of the motor. In other words, he argues that we should be prepared to make any light repairs on the road, and thus guard against the possibility of being left helpless because of some trivial breakdown.

I quite agree with this writer. I do not wish to flatter my sex by arguing that we are as apt in picking up mechanical details as the men, but we certainly could learn to make our own adjustments and minor repairs and so keep our machines in good running order.

GETTING ACQUAINTED WITH THE MOTOR.

In my opinion the easiest way to study a motor and get acquainted with its various parts is to watch a friend or a repairman's mechanic take one of the power-plants down and overhaul it. This will assist the observer in obtaining a clear impression of the parts, and why it is necessary to have them where they are. Until these details are fairly clear in the mind of the lady rider it is obvious that she cannot be expected to tinker with the motor advantageously. Even after watching several take-downs she must proceed with caution, and I have found it a good scheme to strip a motor and then attempt to put it together again. For the first few attempts the novice will have a surprising collection of parts left over after the motor has apparently been put back in running condition, and it will be necessary for a mechanic to explain where these belong and why. Then the lady rider may make another attempt—and so on until she is capable of removing or replacing any part of the engine. This is not the most pleasant kind of work for the fair motorcyclist, but it is more interesting than would appear at a glance, and the practical returns from it are worth while.

Two Lady Riders Turning a Nasty Bend in a Recent English Reliability Trial.

A working knowledge of the motor breeds confidence, and I am personally acquainted with a number of lady riders who would not hesitate to make a trip of any length with the understanding that they would have to make all their own repairs along the way. In our English competitions we have quite a few lady entrants; in fact, we scarcely hear of a competition—especially a reliability trial—without one or more feminine riders entered.

In all these events the rule invariably is that any rider accepting assistance—even from a passenger in a sidecar—will be disqualified, and as our ladies rarely fail it is evident that they must be able to care for their own machines. This should prove that the motorcycle and its motor are not very difficult to master.

HELP IS USUALLY AT HAND.

As a matter of fact, I have found that in case of a breakdown on an ordinary trip I would not have to wait along the road very long before other riders would appear and offer assistance. Sometimes this is quite acceptable—especially if one is traveling with a light tool-kit—but I have also noted that the men take a better view of the situation if the girl rider is sufficiently informed to help in the repair work. The girl who simply throws herself on the mercy of the first male rider who happens along, and then stands about idly while the work is being done, does not create a favorable impression.

The men are willing to help us, but they are also prone to go away and remark that a motorcycle is no vehicle for a woman until she knows how to operate it. Therefore it is well to have all the practical information possible so that we may "hold up our end," as you Americans say.

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Worcester Run Proved a Terror for the Tenderfeet

Greasy Hills And Damp Sand Pulled Down Many Promising Scores In 24-Hour Endurance Trial And Puzzling Schedule Added To Woes Of Riders—Returns Are Not Yet Complete.

WORCESTER, Mass., June 23.—In the opinion of the 42 starters in the 24-hour endurance run of the Worcester Motorcycle Club, June 21-22, it was the stiffest twice-around-the-clock event ever held in this country, and after liberally discounting their appraisal, it can truthfully be stated that it was no pink tea function. Half of the 42 finished before the control was closed Sunday night, and some of the fallen ones are still in the mountains, it is believed.

These were the starters in the order of their numbers: Frank D. Johnson, Harry B. Lake, Roy Dow, Howard L. Clark (Indian); Carl P. Thomas, Stanley Fountaine, Leo W. Ludden, Andrew T. Moore (Henderson); Robert R. Reid, Ernest Marble, Robert Cooke, Jr., Warren E. Loring, Edward L. Plympton, Wm. S. Bunker, Ralph Corey, John Livingstone (Excelsior); Paul M. Brown, Nelson Robinson, Forrest L. Kidder, Gustave Johnson, Leon E. Crooker, Geo. W. L. Clarke, A. B. Varnum, Earl Gove, A. H. Bachilder (Indian); Mark J. McCann (Dayton); A. E. DeLong, Edward Cadarre, A. L. Hawkes (Indian); W. H. Tannebring (H-D); E. L. Mills (Thor); W. F. Cornwell (Excelsior); B. C. Thayer (H-D); A. Zimmerman (Indian); E. W. Padelford (H-D); Arthur LaRoe (Indian); A. P. Madison (Excelsior); W. H. Burnett, Earl N. Goff, Clarence Loftes, N. Brosler, W. F. Halliday (H-D).

The following were checked in at the finish before the control closed: Frank D. Johnson (Indian); Roy Dow (Indian); Wm. S. Bunker (Excelsior); Ralph Corey (Excelsior); John Livingstone (Excelsior); Paul M. Brown (Indian); Nelson Robinson (Indian); Forrest L. Kidder (Indian); Gustave Johnson (Indian); A. H. Bachilder (Indian); Edward Cadarre (Indian); A. L. Hawkes (Indian); W. H. Tannebring (H-D); E. L. Mills (Thor); W. F. Cornwell (Excelsior); B. C. Thayer (H-D); A. Zimmerman (Indian); E. W. Padelford (H-D); Arthur LaRoe (Indian); W. H. Burnett (H-D); Clarence Loftes (H-D).

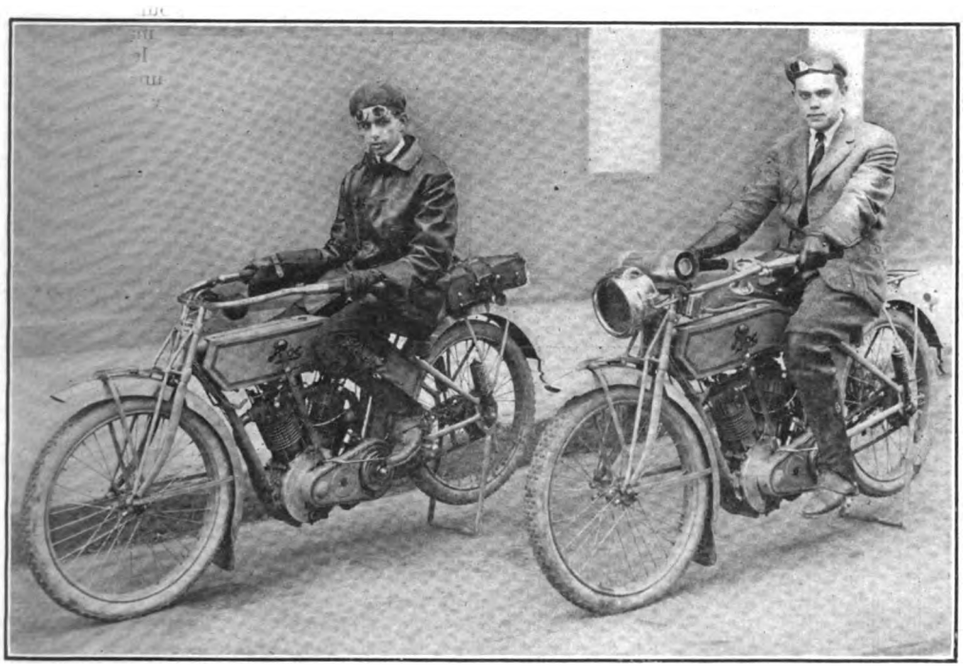
There were quite a few seasoned riders competing, in addition to the usual flock of novices, and naturally the mortality was greatest in the latter class.

The course led into the heart of the White Mountains of New Hampshire, Bretton Woods being the outward termini, and the total distance was 430 miles, according to the entry blank. However, several riders claimed that this mileage was less than that registered by their odometers. The night schedule was given as 15 miles per hour, and the day schedule, 22 miles per hour, but as a matter of fact the riders had to maintain a faster gait all the time to make controls on schedule, which bears out the assertion that the actual mileage was greater than the figures given on the entry blank.

As all checking sheets are not in, it is impossible to state positively who made perfect scores, or are entitled to medals. The official results will be known about the end of the week, but at this writing it seems pretty certain that the team prize has been captured by the second Indian team, composed of Brown, Robinson, Kidder and Johnson, this being the only team to finish complete. It is reported that two or three who finished did not check at certain controls, and will be disqualified, which will, of course, alter the final result.

There were five teams competing, as follows: Brockton Indian team—A. B. Varnum, captain, Earl Gove, W. L. Clark, Leon Crooker. Worcester Indian team—Howard Clark, Frank D. Johnson, H. B. Lake, Roy Dow. Brockton Henderson team—Leon W. Ludden, captain, Andrew T. Moore, Carl Thomas, Stanley Fountaine. Worcester Excelsior team—W. S. Bunker, captain, E. L. Plympton, John Livingstone, Ralph Corey. Harley-Davidson team—Clarence Loftes, captain, Earl Goff, E. W. Padelford, W. Tannebring.

Worcester had a young cloudburst late Saturday afternoon which wet down the roads quite satisfactorily for the riders. In fact, it looked threatening overhead when 8 o'clock arrived, and several of the riders slipped on their raincoats and ponchos, but this precaution proved needless. The only rain that fell during the contest was a few drops near Lowell. The men were sent off from Franklin square in squads of four, three minutes apart, and for more than a block were forced to ride through a deep lane of people composed of the usual Saturday night crowd. Several policemen were detailed to assist in dispatching the riders. It was about 8:30 p. m. when the last squad left, and then speculation began on the result.



STANLEY F. WITHE, of Springfield, and Walter M. McKim, of Brookline, Mass., students at Harvard, left Boston on June 14 for the first leg of a motorcycle tour that will carry them to Europe, and to most of the points of interest along foreign touring routes. Mounting Pope twin motorcycles, the boys headed southward from Boston with Savannah, Ga., as their destination. At Savannah they took passage for Liverpool.

On the way to Savannah the tourists stopped at Baltimore to visit relatives of Mr. McKim, and late bulletins were to the effect that their jaunt into the Southland was entirely satisfactory. On arriving in Liverpool the boys will ride to London, where they will attend the annual dinner of Harvard men at Piccadilly Circus, July 10, they having received an invitation to be present through former Ambassador Robert Bacon. From London they will ride to Dover where they will board the channel boat for Calais, and here they will enter upon the longest stretch of their trip. They will proceed to Paris to spend some time with relatives and will then ride as far southward as Lake Lucerne, where the trip over the Alps will be started. In Brenner Pass the tourists will encounter some rather startling going, there being one straight climb of about 20 miles to try out their motors.

THE "AUTOCRAT" ON THE JOB

THOMAS M. DUNHAM, of the Greyhound Motor Company, was in attendance at the Ohio State meet in Cleveland last week. Dunham was demonstrating the new Autocrat sidecar, manufactured by the Greyhound Company which, attached to a Yale machine, he had ridden from Buffalo, by way of Erie, Warren, Meadville, Youngstown, and Ravenna. He left Monday afternoon for Detroit. The new model, which looked like new despite its rather strenuous trip, attracted no small measure of attention everywhere.

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THE Badger State Motorcycle Company distributes the Reading-Standard in Wisconsin. The company is making a strong bid for popularity through an energetic selling campaign throughout the State.

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SIDECAR LAMP SYSTEMS

By W. T. MILBURN

LIGHTS on any moving vehicle perform two functions, both of which are safeguards to all users of the road. The first is that of illuminating the road so that the way may be seen and accidents avoided, and the second is that of indicating to others the presence of the vehicle and to prevent collisions, etc. Most owners fit lights which carry out the first function, but not everyone considers the second requirement seriously enough. It is all very well to attach a lamp to the motorcycle, but safety demands that the lighting equipment show the full width of the vehicle, as well as its situation on the highway.

Where the increasingly-popular sidecar is used, the ordinary head and tail-lights are insufficient; there is no way for an oncoming road-user to distinguish such an outfit from a solo motorcycle or a bicycle for that matter. If all vehicles were provided with adequate headlights, the necessity for defining lamps would not exist, but we probably will not find this ideal condition for the next century or so. It is a case of protecting the rider and passenger from the negligence or recklessness of others as things stand at present, and the real need for at least two lamps on a sidecar outfit can be appreciated when one has gone through an experience such as the writer had last Spring.

A Narrow Escape on the Road

While driving along the Boston Post road on the way back to New York City it was found that the sidecar lamp had a broken burner and only the motorcycle headlight and tail lamp could be used. We decided that chances must be taken and drove cautiously, as there were a number of places where the road was torn up at one side, leaving only about 5 feet of clear roadway. On entering one of these narrow stretches, the writer (who was driving) saw two headlights coming along side by side, and not knowing whether it was a motorcar or two motorcyclists, pulled up and halloed. "It's all right," came back the answer, "keep straight ahead; we'll pass on both sides." The passenger sung out that ours was a sidecar outfit just as the right-hand rider discovered the fact and set his brake hard. Fortunately only the nose of the sidecar body was dented when the bump came, but we were treated to some bitter language for not having lights to show how wide our outfit was. When we measured the road later there was only a foot of space to our left where the first rider could have passed the sidecar, so the passenger and the other rider might have been seriously injured as they would have met head-on. The second rider was in the wrong in suggesting passing on our left side, but just suppose that he had tried to pass without announcing his intention! Since then, a spare burner has been carried in the driver's coat-pocket on all night trips.

How the Lights Are Arranged

The arrangement of lights on the sidecar mentioned above is as good as any that the writer has seen so far. The sidecar or body-light is fitted at the extreme right of the outfit, but with its rim on line with the hub-cap of the sidecar wheel so that if the lamp will "clear" an obstruction the sidecar will pass by also. The light is placed on the nose of the body and higher above the ground than a lamp carried on the fork-side of a motorcycle, to eliminate all possibility of mistaking the lights for those of two separate vehicles. Recently a top sector of green glass has been put in the lamp front to further attract the attention of oncoming drivers, following the French automobile law. Riders and car drivers who have been met on the road at night invariably say that they class the lights as those of a sidecar or light automobile as soon as they see the second light with the green sector. While this green sector idea is excellent, it is by no means necessary, the two headlights being sufficient if the width of the outfit is defined.

If there is only one tail-light fitted, the rider should keep well over to the right side of the road rather than on the crest, where there is a possibility of being overtaken. There are riders and drivers who take chances of passing on the wrong side when overtaking, just as well as when coming on, and as rather reckless riding was prevalent until recently in the territory where the writer left most of his wheel-tracks, two rear lights were fitted. The second one was mounted on the back of the body, well up, so that luggage would not obscure it, but after it was knocked off several times it was discarded and the motorcycle rear lamp only was used. While a license plate is not necessary in New York, there is one fitted, with a side ray from the tail-light showing it up and aiding in the car-like appearance of the outfit. In general, the lights which are necessary for riding the machine solo can be used, with the additional sidecar headlight when the car is coupled up. This brings us to the question of the lighting medium and its supply.

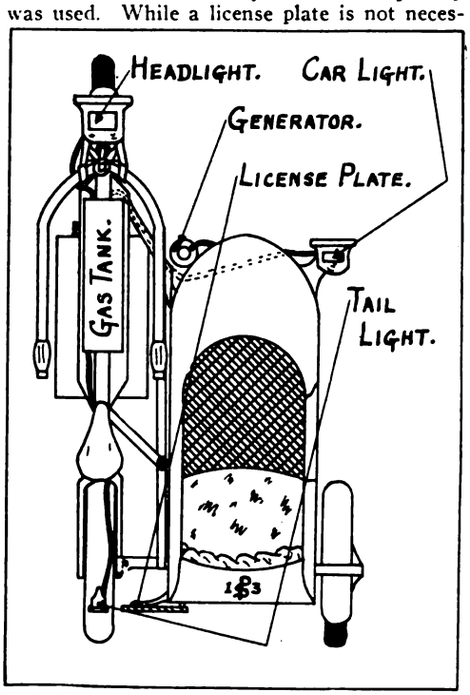

Diagram of Lamp Positions.

A Good Word for Acetylene

The writer prefers acetylene to any other means of lighting. He has had more experience with it than with electricity, and has probably been unfortunate in the bulbs and batteries that have been provided for his use. Considering the requirements of a healthy 8-horsepower sidecar outfit, a small generator or dynamo and 20-ampere-hour battery have been insufficient for any more than moderate speed at night. The dynamo which gave the greatest satisfaction for this outfit was an experimental car outfit, weighing 34 pounds, and of course it was a monstrosity for motorcycle use. Lack of time and opportunity to try out more than three pieces of apparatus this season has caused him to miss some excellent devices without doubt, but as the situation stands, acetylene is preferred.

After some consideration, two separate lighting units have been fitted, one to the sidecar and the other to the motorcycle. This is because some of the club members have the privilege of using the car when the writer goes solo, and not having a three-way connection for their gas tanks or a sufficiently large generator, as the case may be, they can use the separate sidecar generator, which is mounted as in the first figure. The plan of having the generator and lamp on opposite sides of the nose of the body gives a sort of balance to the unit, the tubing is short and the generator gets the benefit of the air currents as the outfit travels. In the same figure will be seen (dotted line) the rubber tube that can be led from a three-way connection near the gas tank to the lamp teat, this being substituted for the separate generator if desired. The tank has ample capacity for three lights, but the sidecar when detached would then be without a lighting supply. Hence, the gas tank supplies the motorcycle lights and the generator serves for the body headlight. Each lamp and supply thus has its own means of control.

Wiring for Electric Lighting

Where electric lighting is used, space rather necessitates the placing of the battery on the sidecar. When either dry or storage cells are used, the best location is under the seat and firmly fastened in place by iron or steel bands or a framework. In a coach-built car the battery should be accessible from the seat by lifting the cushion, and the switch itself should be protected like the battery by being located close to it. On several battery-lighted sidecars seen recently, the switch was placed near the door where it was very handy —too much so, in fact. The passenger could knock the switch blade off contact with his

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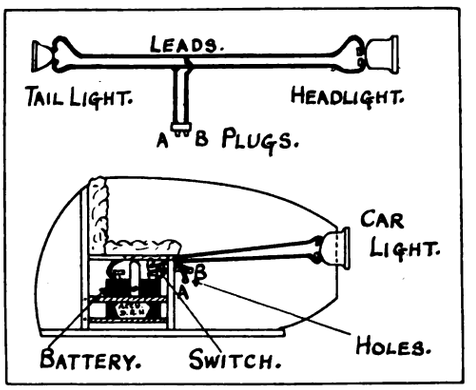
knee or break the whole switch off; a pump or other metal object on contacting with the blade would cause a short-circuit, and lastly there are lots of people of all ages who like to twiddle knobs and are tickled to death to see something happen as a result. Consequently, the batteries so controlled do not last long, and it is better to undergo a little more inconvenience in lifting the seat cushion than to be confronted with a "dead" battery some night, a score of miles from home. A diagram of the wiring for a sidecar outfit is shown in the second figure. When the sidecar is detached, the plug A-B is withdrawn from the sidecar socket.

Gas Tank Equipment

Where the gas tank is used exclusively as a lighting source, there are several positions in which the tank can be carried. The first is that usually recommended: on the top tube of the machine, and the piping is shown in the first figure. The second is on the frame of the sidecar, at the rear. This is an excellent place, but has the disadvantage that when the machine is used solo the tank has to be removed for fitting on the top tube. Another point is that when touring it may interfere with the luggage, unless the riders travel with the traditional tooth-brush and comb only. It will be noticed that the tubing is carried up the sidecar braces to avoid pinching and undue vibration, there being clips with arches to bind the tubes at the various points. The writer uses iron pipes on the sidecar and rubber tubing elsewhere, especially at points where the lamps are connected. There is no doubt that all tubing could be rubber or part copper and part rubber, but iron pipes stand up better and cannot be pinched.



Outline of Wiring for Electric Lighting System, Showing Storage Battery Placed Under Sidecar Seat. It is Out of the Way, But Accessible.

MORE MACHINES STOLEN

TWO Harley-Davidson motorcycles are reported missing. One belonged to Melvin Groves, Box 787, Clinton, Ind. The engine number is 7177. The other was the property of the Missouri & Kansas Telephone Company, of Kansas City, Mo. The latter machine was taken on Decoration Day; engine number, 9161-B.

Does a Copper Surface Fight Off Carbon Deposits?

English Motorist Found Copper Spark Plugs Clean Although Pistons And Cylinder-Heads In Same Motor Were Heavily Encrusted—Interesting Possibilities Suggested By New Theory

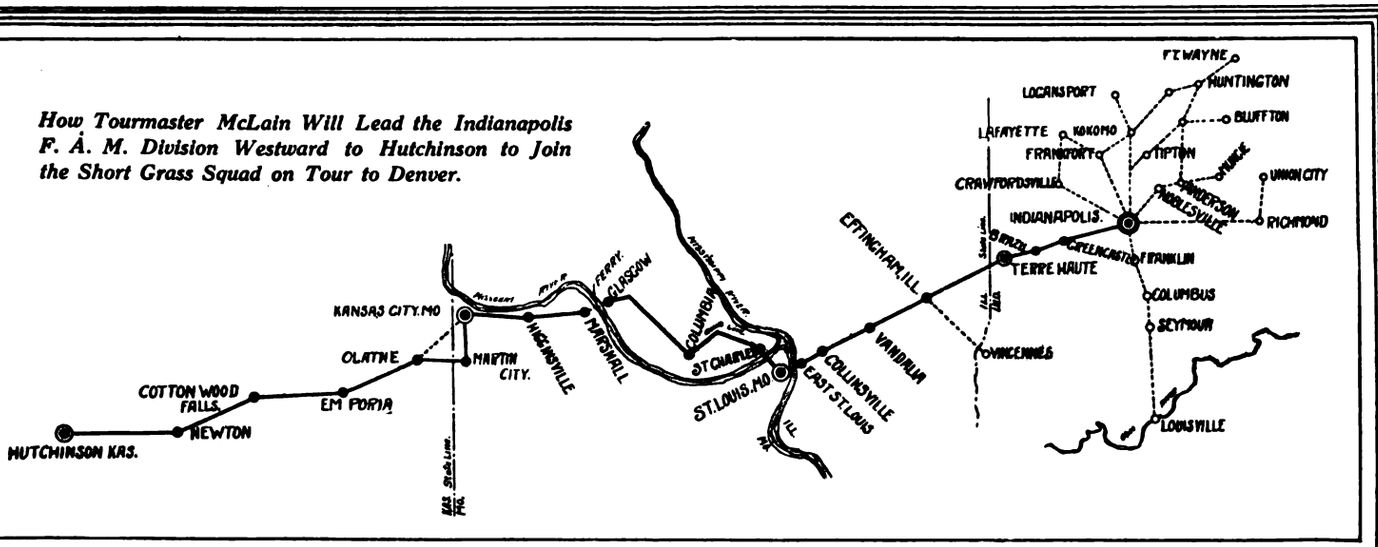
AN English motorist while dismantling a three-cylinder, air-cooled motor, which was fitted with a copper plug in the top of each cylinder, discovered that the plugs were practically clean, although the cylinder heads and pistons were heavily encrusted with carbon, and was unable to account for these conditions except through the fact that the plugs were of copper. In calling attention to his discovery he suggested that if the tops of the pistons were copper plated also they would be kept free of carbon deposits, proceeding upon the theory that the copper surface was not readily susceptible to the accumulating of carbon.

The matter was taken up by *The Autocar*, an English automobile journal, and was dealt with later by *The Motorcycle* in an article from which the following is an extract:

"A statement of the case was submitted by *The Autocar* to an analytical chemist, who is also a practical motorcyclist and motorist. The summary of his opinion is that the absence of deposit on the plugs is due to the copper always being at a considerably higher temperature than the cast iron cylinder. Unfortunately, he points out that plating a piston with a deposit of copper would not have the same effect as if the piston were made of the solid metal, because it would only change the surface of the metal. It is interesting to note, however, that the copper gets so hot that soot or carbon soon burns off, and for this reason the chemist referred to thinks that this accounts for the sparking plug being rarely coated with carbon deposit, because it is surrounded by a large bulk of metal (usually gun-metal) in the form of the valve cap, which cannot cool quickly enough to allow the deposit to form. This brings up the question whether an alloy could not be used for piston heads, or separate combustion heads, which would have an effect similar to copper?

"There is one item in this interesting article which does not seem to bear out our experience, and that is in connection with motorcycle engines six or seven years old. The writer says that these engines were far freer from deposit than modern motorcycle engines, because they were always running with their exhaust valves red hot, so that no deposit could form. Although it is probable that, with improved carburation and better designed exhaust passages, modern engines keep cooler than those made six or seven years ago, we are still of the opinion that the exhaust valve is usually nearly red hot, but that does not prevent a large amount of deposit forming."

How Tourmaster McLain Will Lead the Indianapolis F. A. M. Division Westward to Hutchinson to Join the Short Grass Squad on Tour to Denver.



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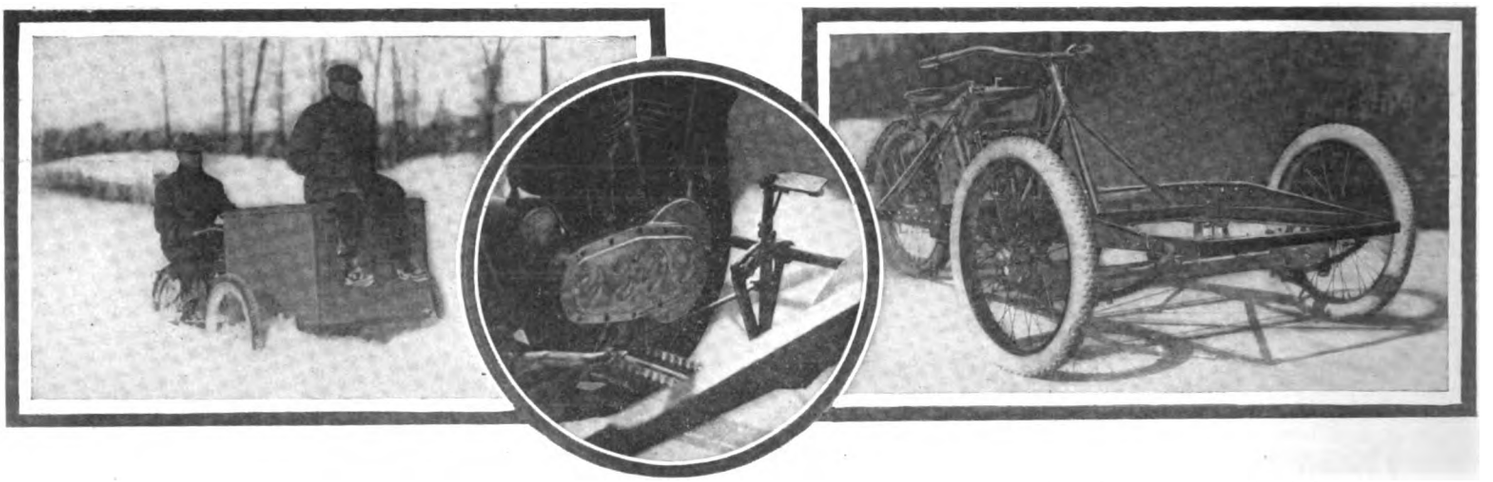
New Harley-Davidson Motorcycle Truck Is Ready

Exhaustive Tests Prove That Commercial Three-Wheeler Combines Remarkable Sturdiness With Mechanical Simplicity and Economy—Parcel Post Trial Pleases Milwaukee Postmaster.



The Truck Undergoing a Severe Winter Test; the Sturdy Power Plant; Stripped Chassis, Showing Unusual Strength of Construction.

ONE of the most interesting announcements made in some time from the Harley-Davidson headquarters concerns the company's new motorcycle truck which is shown in the series of photographs on this page. The truck has been in process of development for some time past, and the company has refrained from giving it publicity until it measured up to every expectation. It does this now—and with something to spare. It is stanch, speedy, roomy, economical and so simple in operation that even a novice can obtain uniformly satisfactory results with it.

The truck body is 2 feet 10 inches wide, 3 feet 6 inches long and 2 feet 4 inches high. The wheelbase is 76 inches and the tread is standard, 56 inches. The last-given point is important, as it means that the vehicle will track perfectly on any road. The twin motor develops 8 horsepower, and being equipped with the Harley-Davidson two-speed gear it affords a ratio of 5 to 1 on high speeds and 10 to 1 on low. With the maximum load the truck can be started easily in mud or snow and on heavy grades. With a full load it can be driven at any speed from two to thirty miles on hour.

The operator can step from the curb to the machine and start without the slightest trouble, and with the rear wheel always on the ground. The machine is equipped with the well-known Harley-Davidson free-wheel control. It is fitted with an internal expanding brake 7 inches in diameter and operated by a foot pedal. The face of this brake is seven-eighths of an inch, thus giving plenty of friction surface. Well-designed mudguards protect the driver so that the machine can be used regardless of weather conditions. Of special interest also are the chassis and steering knuckles of the new motorcycle truck. The former is built of pressed steel of open-hearth stock, heat treated, with cross braces under the body and side stays to the rear wheel so that none of the strains of the load are communicated to the engine frame. The chassis follows the practices that have been found most satisfactory in automobile construction, and the steering knuckles have ball bearings at the top and bottom to facilitate the handling of heavy loads.

The vehicle is fitted with 28-inch wheels, each of which has forty spokes, and especially large hubs. The tire equipment on the two front wheels is 2¾, and a 3-inch tire is used on the rear wheel. A low center of gravity is obtained with the underslung construction of the springs. The load in the body of the truck is carried on semi-elliptic springs, 1¾ inches wide. Another exclusive feature is the use of hardened steel bushings and steel pins on the spring shackles. These hardened steel bearings are practically indestructible and give great strength where it is of vital importance.

The truck was given its most severe tests last winter, when traveling conditions were at their worst and when any weakness, either in mechanical equipment or general construction, would be certain to show itself. On one occasion two men from the Cutler-Hammer Manufacturing Co., two members of the Harley-Davidson staff and three bags of sand were carried up all the hills in the vicinity of the plant without difficulty. When the men and the sand were weighed they tipped the beam at 1,120 pounds. This was considered a remarkable performance in view of the fact that the truck is designed to carry a load of 600 pounds.

D. C. Owen, postmaster in Milwaukee, is deeply interested in the utility of this type of truck, and at his request the Harley-Davidson company loaned him one of the outfits for a test recently. Fifty-one parcel post packages were delivered in two and a half

Harley-Davidson Truck Outfit Used in Delivery Service by J. F. McLelland.

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hours on a route of 14.2 miles. This work would have consumed four and a half hours with a horse and wagon. Owing to the fact that it was necessary to make a second call at two places where the people were not at home, fifty-three stops were required. The post-office department figures two minutes for each stop, and the same length of time is required for stops whether delivery is made by horse and wagon or by the new method, so the gain in time between stops is as two to one with the motorcycle truck over old Dobbin.

William Harley handled the truck himself in this test, as he was desirous of learning what the government requires in parcel post delivery. Over the entire route he carried the regular parcel post man sitting on the box. In ordinary service, of course, this extra weight would not have to be handled. The greatest advantage of the motorcycle truck over the horse and wagon lies in the economy of operation. The motorcycle delivery vans now in service have demonstrated that when used for long runs they make from forty to forty-five miles on a gallon of fuel. The gasoline consumption on the test conducted for Postmaster Owen was a trifle less than half a gallon, and Mr. Harley figured that the trip was made on a basis of thirty-two miles to the gallon. The number of stops necessarily reduces the number of miles per gallon, but even figured at the low average of thirty-five miles per gallon, with an oil consumption at the rate of 250 miles per gallon, the operating cost would be about sixty cents per day.

One of the photographs accompanying this article shows the motorcycle truck used by J. F. McLelland in his Milwaukee Parcel Delivery Service. McLelland was formerly employed by the Harley-Davidson company to operate one of the trucks between the factory and the post-office, and he became so deeply impressed with the commercial possibilities of the vehicle that he decided to go into business himself. Accordingly, he placed one of the trucks in parcel delivery service and has made such rapid progress that he will put on one or two more as soon as he can get them.

TESTS IN WASHINGTON

WASHINGTON, D. C.—"If you want a thing well done, do it yourself" is evidently the motto of the Harely-Davidson organization. Bids have been called for by the Post Office Department for delivery machines of the three-wheeled type to be used in parcel post service, and W. S. Harley and Arthur Davidson both were in this city for an official test of the new Harley-Davidson motorcycle truck by postal officials.

Mr. Harley personally conducted the test. He drove through the city streets and out into the suburbs, taking all grades with apparent ease. Starting at the bottom of Mt. Pleasant hill, a grade considered very difficult even for 7 h. machines carrying one passenger, the Harley-Davidson truck made the ascent with ease. The start of the climb was from a standstill. Then four passengers were taken aboard the machine and the hill was climbed again without difficulty. Another test was made on the Thirty-fifth street hill in Washington. This hill ascends at a very sharp grade from M street, a business thoroughfare which is always crowded, preventing any attempt at a flying start. Several other successful tests were made and the post-office officials were favorably impressed. No contracts will be made at this time, but the bidders will be notified in the near future as to the decision of the department.

EASTERN F. A. M. ROUTE

Tourmaster Bushnell Tells How He Will Lead Big Squad from Chicago to National Assembly in Denver.

TOURMASTER BUSHNELL announces that plans for the tour of the Eastern F. A. M. division to the national convention in Denver have been completed, and that the itinerary will be as follows:

The Eastern branch will leave Chicago at noon of July 13, reaching De Kalb at night. Sterling will be the noon stop for the following day, and the riders will spend the night at Davenport. Iowa City will be the dinner control on July 15, and at night the party will check in at Des Moines.

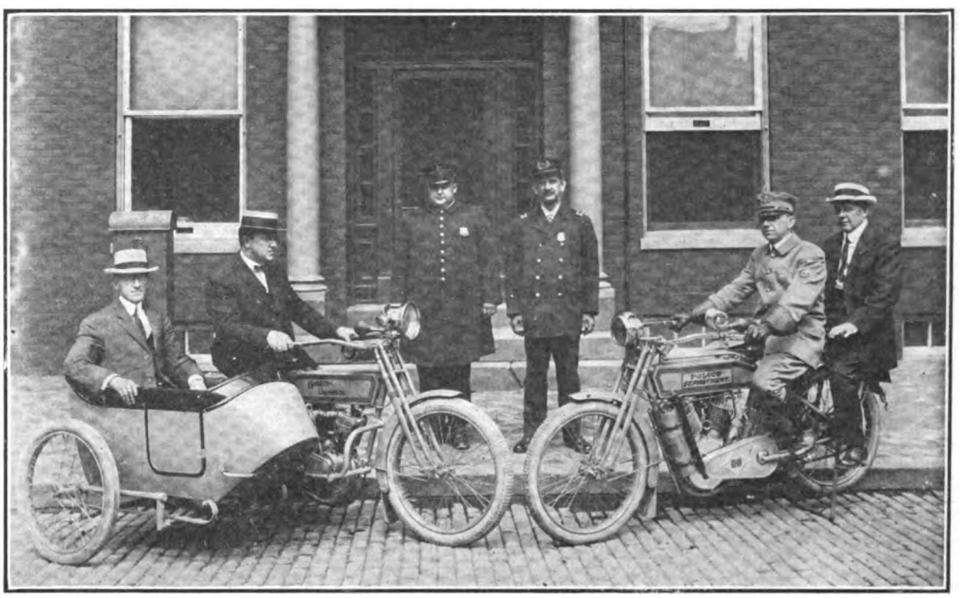
The division from Minnesota is scheduled to leave Minneapolis on the morning of the 14th, making its noon stop at Owatonna and remaining overnight at Mason City. On the 15th the party will have dinner at Marshalltown, arriving in Des Moines in the evening. Here Bushnell will take charge of both sections and the party will leave Des Moines on July 16, making Atlantic, Ia., the noon stop and Omaha the night rest.

The Dakota branch will leave Aberdeen, S. D., at noon of the 13th, and will remain at Watertown overnight and on the following day will make Brooklings the noon control and Sioux Falls the night stop. They will spend the next night at Sioux City and will reach Omaha the night of July 16, where they will join the main tour.

At Omaha there will be a parade in the evening and other forms of entertainment which will be provided by the Omaha Motorcycle Club, assisted by the Commercial Club. One of the big features of the Eastern division's program will be a banquet at the Standish Hotel, in Denver, on the evening of July 22.

BUFFALO CLUB'S CENTURY

A CENTURY run to Lockport, N. Y., was recently made by members of the Buffalo Motorcycle Club. The route led through Clarence, Akron, Middleport and Medina.



UP-TO-DATE OFFICIALS IN YORK

FROM C. W. Hoffman, 21 West Market street, York, Pa., comes the accompanying photograph of the Harley-Davidson machines in use by the local police department. The York police officials use the solo machine for general service and the sidecar outfit is frequently utilized to carry three men for an emergency call. The Mayor of York is seen seated in the sidecar. He is accustomed to use it on his inspection trips through the town and into the suburbs, especially for keeping in touch with highway repairs. Last year the York police department purchased two 4 h. Harley-Davidsons from H. O. Young, the local agent, and early in 1913 these were replaced by the two 8 h. twins shown in the picture. The sidecar is an "Autocrat."

ANOTHER ONE GONE

A 1912 7 h. Indian was stolen from Andrew Kraus, of Genesee street, Auburn, N. Y., on May 17. The machine was of the twin cylinder type, red, and the engine number is 74D739.

FAVORABLE RULING OBTAINED

THROUGH the efforts of P. E. Zimmerman, secretary of the Kansas Short Grass Club, a ruling has just been obtained from the Attorney General of Kansas which will save considerable money for motorists of the Sunflower State. The new ruling gives both automobilists and motorcyclists the right to operate a machine not equipped with a headlight. This benefits the riders who do no night touring, but who previously have been compelled by a sweeping regulation to equip their machines with a lighting system.

MOONLIGHT OUTING

A SQUAD of Harley-Davidson riders of Trenton, N. J., recently enjoyed a 50-mile moonlight jaunt. The riders gathered in front of the Harley-Davidson headquarters on North Broad street and, headed by James Fenton, an attache of the agency, they rode through Washington's Crossing, Pennington and Ewingville to Mercerville, and thence back to Trenton by way of Hamilton Square, Allentown, Yardville and White Horse.

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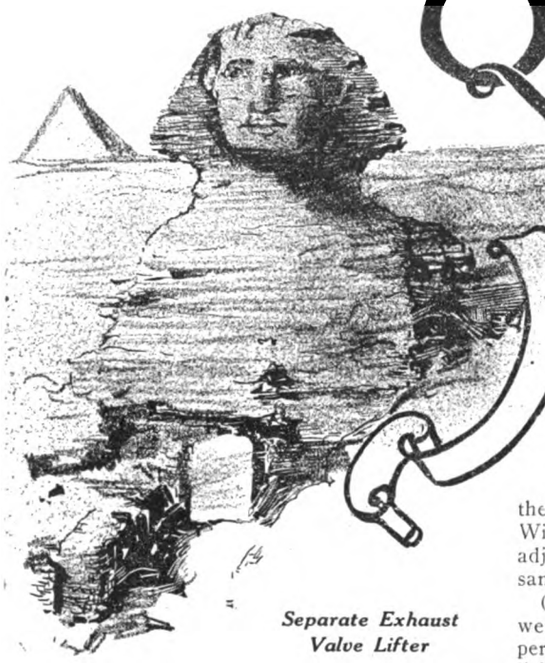
Questions & Answers



Separate Exhaust Valve Lifter

DONALD CARTER.—We have no official record as to when the separately-operated exhaust lifter was first applied to a motorcycle, but one of our Editors has used one on every machine that he has owned since 1906, fitting one when makers neglected to do so. We believe that the separate lifter was introduced on the N. S. U. motorcycle in 1906-07 into this country.

The separately-operated valve lifter enables the rider to set throttle and spark to the most advantageous positions for starting and leave them so set while he pedals over. At the proper moment, he lowers the valve and the motor starts off, there being no "feeling" for the proper position of the spark and repeated movements of the spark control are avoided. On taking a turn, the valve can be lifted and speed reduced without altering the setting of the controls, and on dropping the valve, the machine is again ready to resume its former pace. These are two of several reasons for using the separate lifter, given by our contributing Editors.

When fitted the lifter should be on the opposite side to the clutch control, so that the machine can be stopped either by pulling the clutch or lifting the valves in an emergency. It is perhaps better to have the throttle and lifter on the same bar rather than another arrangement, for either solo or passenger work.

Shock-Absorbing Systems

ITHACA RIDER.—We cannot recommend one make of shock-absorbing device to the detriment of another, but suggest that you find out from users of the various types just what satisfaction they have had in each case. A conscientious rider will, generally, give you some idea of where a device might, in his opinion, be improved upon, but most riders' opinions on the things which they do not use are highly prejudiced and usually confuse the inquirer rather than assist him in making a choice.

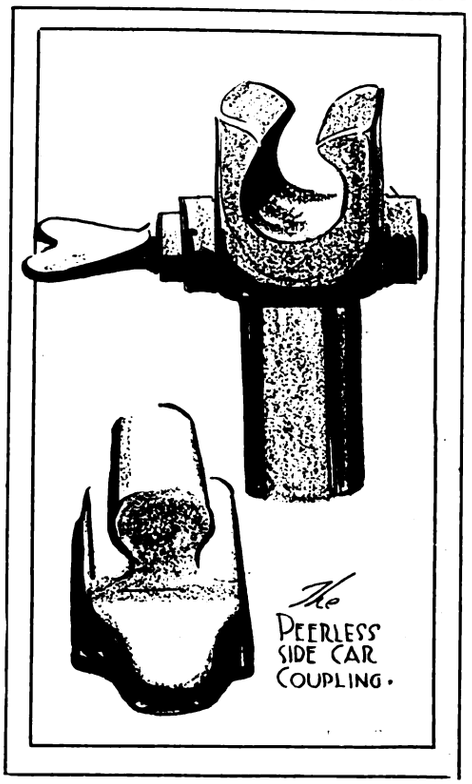
(2) You can regulate the tension of a spiral spring in several ways. One is to extend or reduce its "pitch": i. e., pull the spirals or coils apart or bring them closer together. With a spring acting in tension, extending its pitch reduces its power, while reducing the pitch increases the power. When a spring acts in compression, extending the pitch increases its power while reducing the pitch reduces its power. Another method of regulating the power is to compress the coils together by a screw and nut for increasing or by slacking off the nut for reducing the power of the spring. With care, then, two spiral springs can be adjusted so that the power of each will be the same.

(3) There are no means of regulating that we know of, short of annealing and re-tempering. Write the makers. The official English definition of a cyclecar is as follows:

"A cyclecar is a vehicle in which the cylinder capacity of its engine must not exceed 1,100 c. c. (67.1 cubic inches). The chassis weight must not exceed 6 cwt. (672 lbs.) inclusive of the weight of the tires, or in the case of those vehicles the bodies of which are not separable from the chassis, the total weight all on and ready for the road, but without fuel, oil or water, must not exceed 7 cwt. (784 lbs.)"

A Mysterious Leak

JOHN D. STRAKIN.—It is difficult to explain such a tire leakage as you refer to without seeing the tube and casing, but when a slow leak occurs there are several methods of procedure open to the rider. First examine all the old patches on the inner tube to ascertain that they are not permitting air to escape. If a leaky patch is found it should be removed and a new one used; attempts to "patch a patch" are rarely successful. If there are no patches on the tube the investigator may proceed at once to examine the valve, which may have pulled slightly away from the inner tube.



A New English Sidecar Product

Slow and mysterious leaks often give much trouble and arise from strange causes. Not long ago a Brooklyn (N. Y.) rider was bothered in this way by one of his tires. He finally removed the inner tube, inflated it and found that one section (about six inches long and two inches wide) bulged out like a toy balloon beyond the tube proper. This part was very thin and somewhat porous and it was natural to assume that the loss of air occurred at this point. In the instance referred to the defect was in the tube when purchased and there was no remedy for it. We are inclined to believe that your trouble will be located in or around the valve.

Maximum Speed

ARTHUR MORROW.—We fear that the 25-mile speed is the maximum speed of your machine in its present condition, unless you have it overhauled and the piston and timing clearances verified. We presume that the motor is a 2¼ horse type. If the motor does not, as you state, run over the 25-mile speed with regularity, attempts to force it faster will cause alternate firing (missing and resuming regular firing when the maximum speed is again attained). The re-timing of the exhaust valve might work for an increase of speed, say about five miles per hour, and a trial of this might help.

STRONG FAIRBURY LINE-UP

EIGHTY-FIVE members of the Fairbury (Ill.) Motorcycle Club recently made a run to Pontiac, and before getting under way they posed for the photographs which appear on the opposite page. The picture reached the Art Editor's desk in panoramic form, and it was found necessary to rearrange the grouping of the figures in order to bring them within mechanical requirements. A glance at the line-up of enthusiasts will show that Fairbury is not short on motorcycle spirit, and the turnout for the recent run is especially noteworthy because of threatening weather. The club officials are confident that no less than 125 riders would have figured in the picture, but for the fact that there were strong indications of rain.

When the squad arrived at Pontiac, John L. Purdum, the Harley-Davidson agent, played host at a dinner and the boys voted him one of the liveliest boosters they had ever met. Fairbury, by the way, claims to have the largest motorcycle squad in the state.

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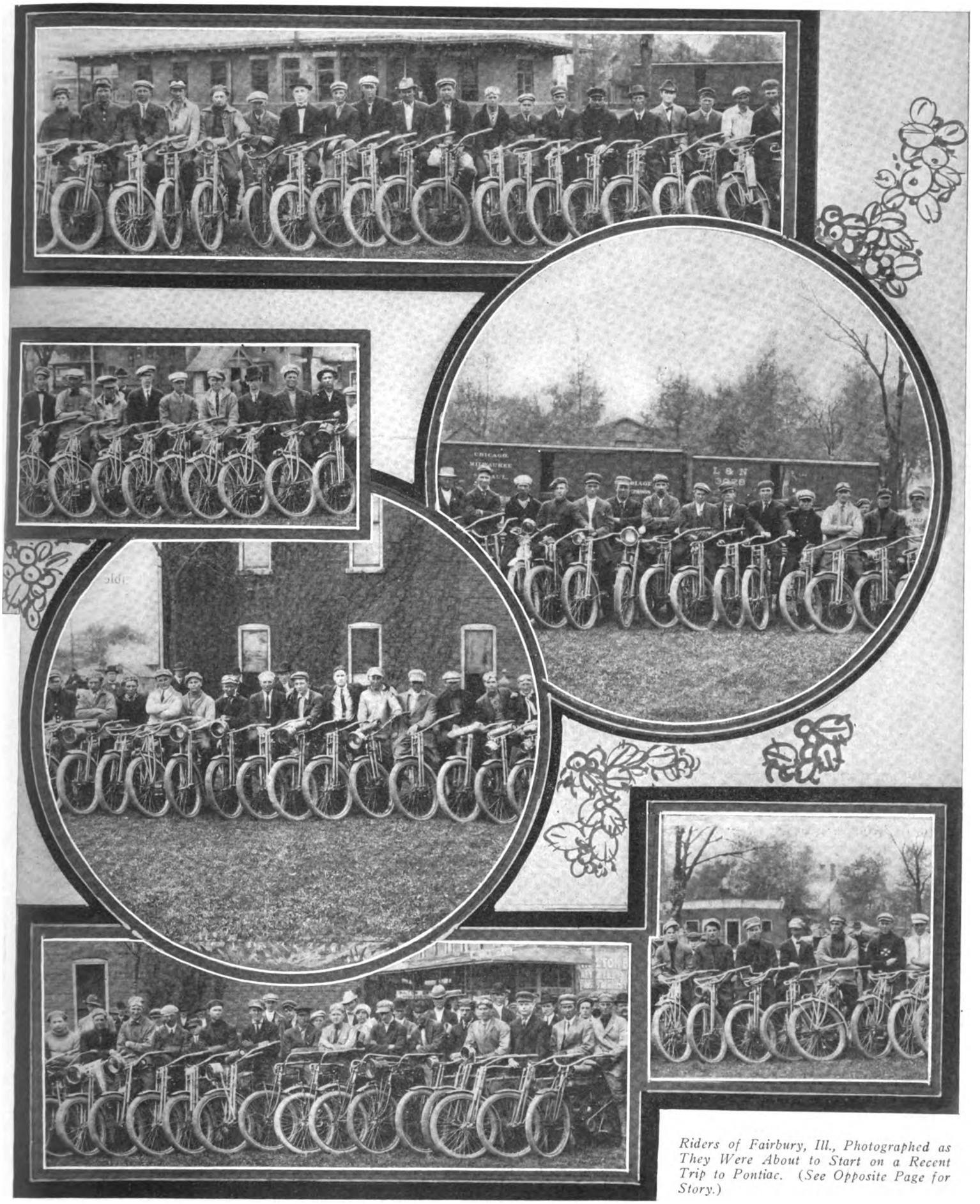

Riders of Fairbury, Ill., Photographed as They Were About to Start on a Recent Trip to Pontiac. (See Opposite Page for Story.)

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DEALER'S MACHINE STOLEN

GEORGE HUTER, agent for the Harley-Davidson in Dallas, Tex., reports the loss of a 1913 Harley-Davidson single. The machine was stolen on May 22. It was a belt-driven model equipped with Goodyear tires, four-chime exhaust whistle and cyclometer. A small leather box was strapped to the front forks. The engine number is 275-C, and the machine carried a Texas license, number 4246.

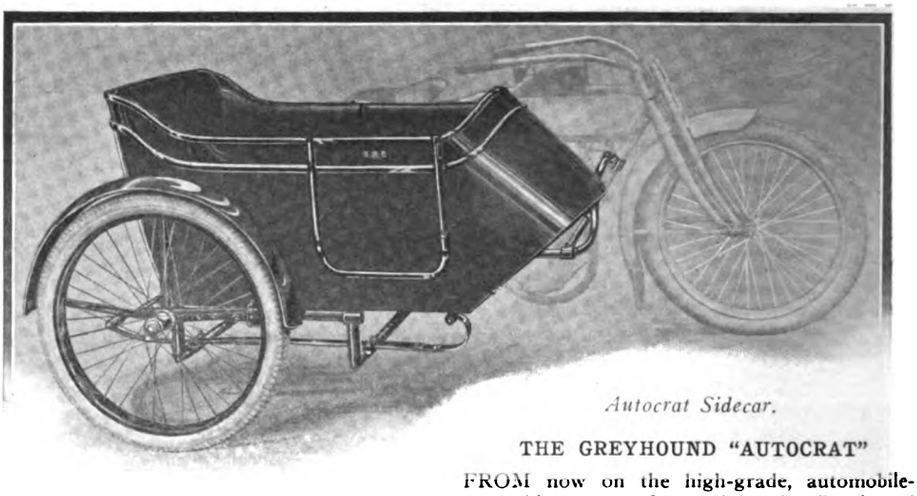
Busy Headquarters of the Reading Standard Sales Co. in Chicago.

TWO YALES STOLEN

ON SATURDAY night, June 14, a Yale twin, 1913 model, motor No. 21564, with lamp and tandem attachment, was stolen from in front of the Empire Theater, Toledo, Ohio. Any information regarding this should be directed to the Chief of Police, Perry Knapp, of Toledo.

A Yale twin, motor No. 21914, was stolen from C. A. MacDonald, at Buffalo, recently. Information concerning this machine should be addressed to the Consolidated Manufacturing Company, Toledo.

WORK has been started on a plant for the Alliance Rubber Company, on South Mahoning avenue, Alliance, O.



Autocrat Sidecar.

THE GREYHOUND "AUTOCRAT"

FROM now on the high-grade, automobile-type sidecar manufactured by the Greyhound Motor Company, of Buffalo, N. Y., will be sold under the trade name "Autocrat," instead of "Autocar." The Buffalo company chose the latter name when the manufacture of its improved third-wheel attachments was started, owing to the fact that lines of motor car construction were followed wherever possible, but it has recently been advised by an automobile manufacturing company that the name "Autocar" is copyrighted. The Greyhound folks then quickly hit upon the name "Autocrat," and all who are interested believe the change is for the better. The term Autocrat is descriptive of the high standing that has been attained by the Greyhound product, and also suggests the tone and luxurious equipment that help to distinguish this sidecar. The attachment will be enameled to match any standard machine. It sells for $95.

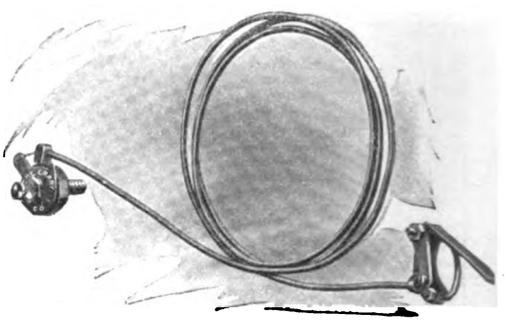
COLLECTOR RIDES POPE

W. C. STRIPLING, of Fort Worth, Texas, has used a Model H Pope lightweight in his collection service for over twelve months, during which time he says he has had occasion to test it thoroughly in all kinds of weather with the temperature ranging from 108 in the shade to 15 above, and to drive it through water, mud and dry sand. There have been no expenses for repairs other than punctures.

Mine Host Swenson Releasing a Fat Porker for the Pig Chase on "Indian Day."

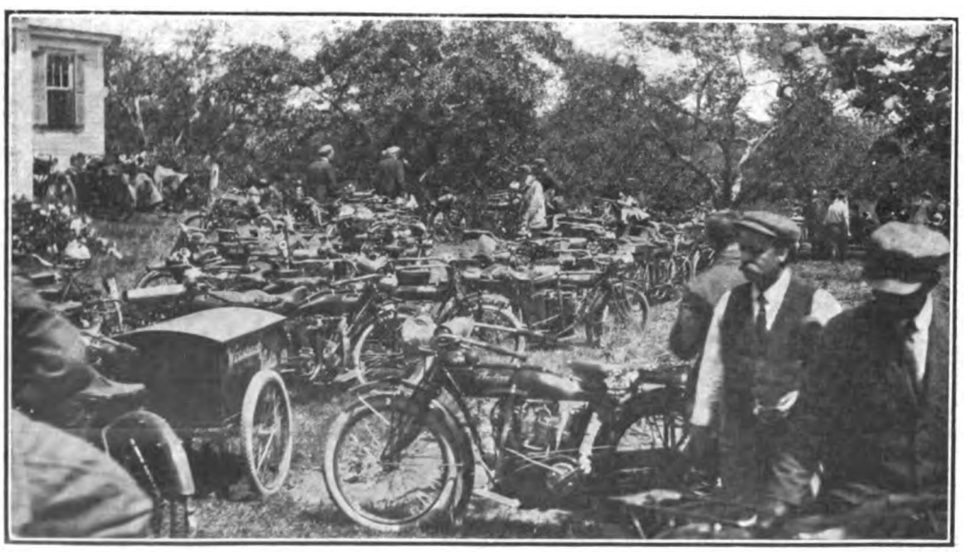
AIDING THE CARBURETER

ONE OF the latest and most interesting aids to the motorcyclist who strives consistently



to make the most of his mixture is an ingenious device known as the "Crary Gasoline Saver," for which the Harry Svensgaard Sales Corporation, of Detroit, Mich., has sole selling rights. This contrivance is connected to the intake pipe and is operated by a control lever on the handlebar, through a flexible cable. All that is necessary to attach the instrument is to drill a tiny hole in the intake pipe and screw in the saver. When fitted to a twin it is placed between the carbureter and the manifold.

The device has a small valve controlled by a spring that automatically cuts out the saver at low speeds, and it is further controlled by the handlebar lever, as may be found necessary when the machine is in operation. In this way the rider is enabled to make adjustments that conform to actual running conditions, instead of setting his carbureter while the mount is on the stand and taking a chance on having the adjustments meet the varied requirements of the road. The device sells for $2.50.



Machines at B. A. Swenson's Big Indian Outing Held Near Providence on June 21.

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FIRST CARLOAD TO UTAH

UNUSUAL interest attaches to the accompanying photograph in view of the fact that it depicts the arrival in Salt Lake City of the first carload of motorcycles ever shipped to Utah. The machines were Indians, consigned to Lon Claflin, the Wigwam representative in Salt Lake. Claflin's growing business has forced him to take in a store adjoining his old headquarters and he now has about double the space formerly available. Claflin has ordered a second carload of Indians and expects to pass them out about as rapidly as he did the first carload.

IN LARGER QUARTERS

THE Nathan Novelty Manufacturing Company, of 88 Reade street, New York, is now established in its new offices at that address. With the additional floor space which the company is now using for its offices and salesroom, it has a plant that is large enough to take care of their greatly increased sales of automobile and motorcycle fabrics. The total floor area is about 20,000 square feet. The Nathan concern has been one of the most active and progressive in its field and, by producing a fine quality of goods and giving the trade unfailing attention, it has developed a rapid growth of business.

JOINS NICHOLS-FINN CO.

W. W. GARRISON, for two years associated with the advertising of the Hudson Motor Car Company, Detroit, Mich., has resigned from his office of publicity manager to connect himself with the Nichols-Finn Advertising Company, Chicago, Ill., and enter a broader field of advertising and merchandising.

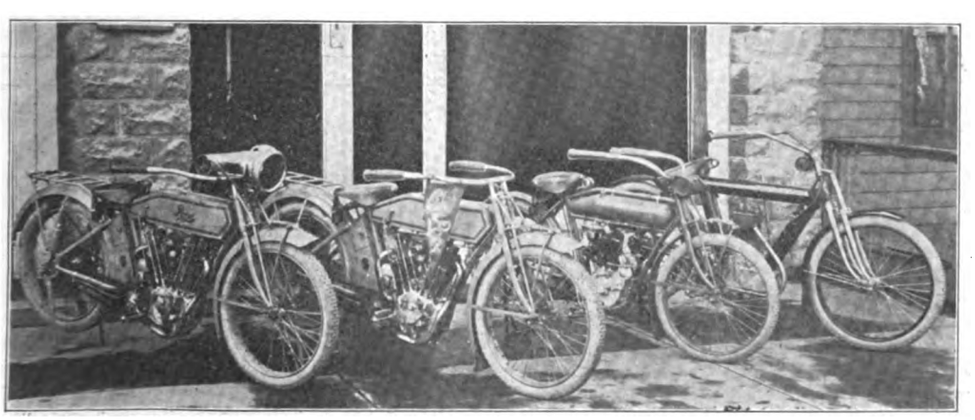
Mr. Garrison for several years was a member of the copy staff of Lord & Thomas Advertising Agency, Chicago. Before that he was engaged in newspaper work in Chicago, and is well known in newspaper circles.

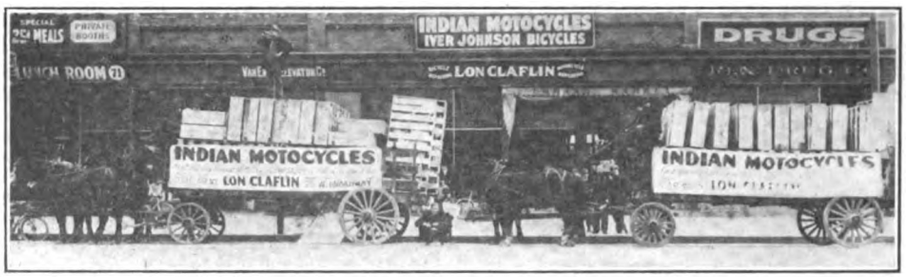
EIGHT AT A CLIP

L. S. CRANE, of Atlanta, Ga., recently landed what is said to be the largest single motorcycle order ever placed in that city when Mose Holland, purchasing agent for Fulton County, Ga., ordered eight Pope twins for Chief Rowan's county police force.

A POPE LINE-UP

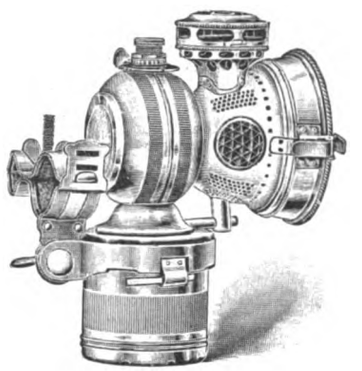
IN THE accompanying photograph is shown a line-up of machines in front of the headquarters of E. C. Morris, the hustling Pope agent in Long Branch, N. J. Morris reports a lively demand for the Pope in his district and states that the present season is the best on record in his territory.





IMPROVED LAMP MODEL

IN THE accompanying illustration is shown the improved Twentieth Century gas bicycle lamp, for which the Twentieth Century Mfg. Co., 420-22 Ogden street, Newark, N. J., is finding a remarkable demand. It suffices to state that the high standard of workmanship featured in its motorcycle lighting products and in its other bicycle lighting equipment is readily noticeable in the bicycle model No. 2. This lamp is made of brass, with nickel-plated finish, and stands seven inches in height. It weighs only 22 ounces, and has a carbide capacity of



five ounces. It is fitted with a parabola reflector. Special attention is called to the new carbide cup attachment and the new patent door catch.

The locking device of the former is exposed, unlike the catch of the old model—a twist to the left and the carbide cup is securely fastened. The new patent door catch works on the lever and spring principle and is most easily operated.

MORE HAVERFORD PROGRESS

THE Haverford Cycle Company, of Philadelphia, does not lay claim to being a matrimonial bureau, but when two of the Haverford clan take unto themselves wives within the short space of two weeks, it begins to look as if the company was developing a matrimonial side-line. The two benedicks are I. K. Sternberg and Thomas Kilroy.

E. & C. COMPANY INCORPORATED

INCORPORATION papers have been filed with the Secretary of State of Pennsylvania by the E. & C. Manufacturing Co., 1716 Ludlow street, Philadelphia. The company is capitalized at $20,000. The officers are Benjamin Craddock, president; Edward W. Donoghy, vice-president; George Donoghy, treasurer, and Herbert Culp, secretary. The business was formerly carried on under the name of Ernest & Craddock, with headquarters at Fifty-second and Filbert streets, Philadelphia.

A CORRECTION

THE price of the E. & C. chain idler is $1.50, and not $7.50, as stated in their advertisement of June 12. The manufacturers of this device, the E. & C. Manufacturing Company, of Philadelphia, state that the sale of the idler has been exceptionally good and that the prospects for a continued and increased demand are very bright.

A NEW GIRL AT HARLEY'S

WILLIAM HARLEY, of the Harley-Davidson Motor Co., is rejoicing over the arrival of a brand new baby girl at his home, and incidentally he is crowing over Walter Davidson whose second boy arrived two weeks ago. Harley insists that a girl and a boy make a better combination than two boys—and there you are. "Big Bill" Davidson is much amused by the chaffing because he has five children, with the boys and girls as evenly divided as is possible under the conditions.

FOREIGN SALES BRANCH

FROM the Carbo-Light Sales Company, Anderson, Ind., comes the statement that the foreign demand for Carbo-Light tanks has increased very rapidly of late, and that in order to care for this business properly the company has established a foreign sales department in New York City, under the management of Charles F. Lyngaas. The new Carbo-Light branch is located at 50 Church street, in the Hudson Terminal building.

NO SPLITDORF TROUBLE

FROM the Splitdorf Electrical Company comes the following announcement intended to correct erroneous impressions obtained from newspaper statements concerning the showing of its ignition equipment on cars in the recent Indianapolis Speedway race.

"Misleading newspaper reports, arising through lack of authoritative information as to ignition equipment on several cars in the Memorial Day 500-mile race at Indianapolis, have created the false impression that a car equipped with Splitdorf ignition lost an important position through ignition trouble. As a matter of fact, all cars in the race equipped with Splitdorf ignition came through without a suggestion of ignition trouble, their failure to win out being attributable to divers other causes."

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TIBBITTS ON ADVERTISING

Goodrich Expert is Among the Principal Speakers at Big Convention of Advertising Clubs in Baltimore.

WITH "The Advertising Agency" as his subject, E. C. Tibbitts, advertising manager of the B. F. Goodrich Company, of Akron, delivered one of the most interesting addresses at the national convention of Associated Advertising Clubs of America, held recently in Baltimore, Md. Within the past year, the B. F. Goodrich Company have thoroughly investigated the services of the leading advertising agencies, both east and west, and, as a result, they are now utilizing the services of the Mahin Advertising Company of Chicago. Consequently, Mr. Tibbitts' opinion, based upon a conscientious investigation of the agency field, as well as upon his long experience with direct handling of the advertising of his company, is illuminative.

Mr. Tibbitts has one of the hardest advertising positions in the country, handling a mass of detail each day that would stagger the inexperienced man. The Goodrich Company sends out to its branches, service stations, agencies and customers a prodigious quantity of literature.

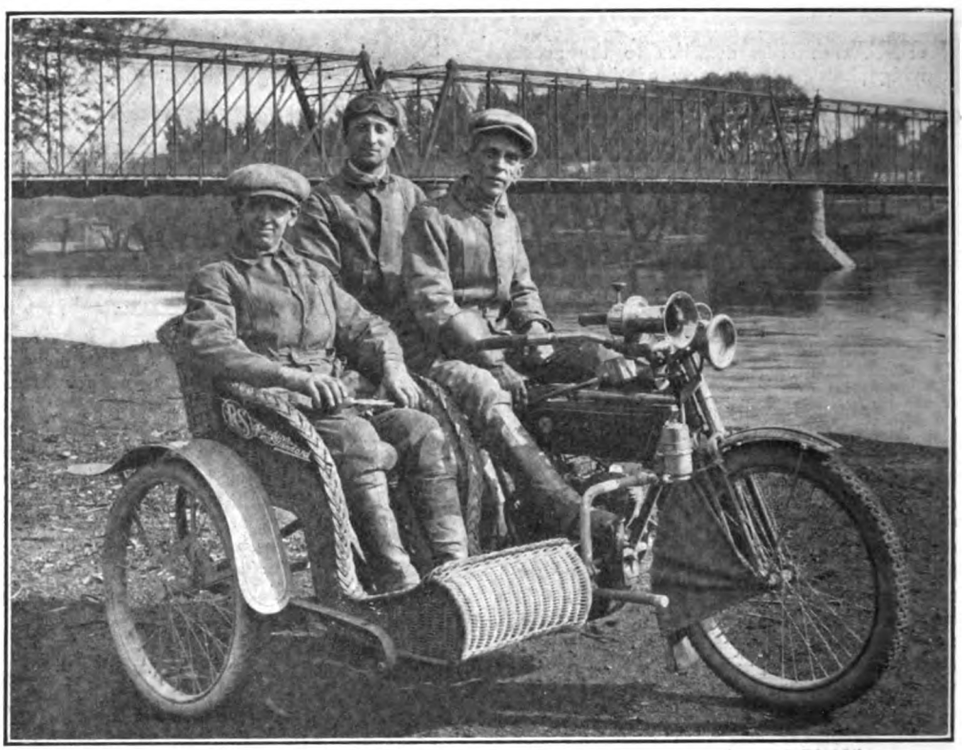
The fact that the Goodrich road signs, or guide posts, have been set up on over fifty thousand miles of American motor routes, and that road maps and route books covering every section of the country are prepared and mailed to motor tourists on request, gives a slight idea of the details in one department alone.

When the Adcraft Club was organized six months ago, Mr. Tibbitts was unanimously elected president, and the work outlined and accomplished by that club to date has shown the wisdom of their choice.

Mr. Tibbitts is a consistent and thorough advocate of accuracy, and exact honesty in advertising, as is evidenced by a phrase which is conspicuous in Goodrich advertising: "There is nothing in Goodrich Advertising that isn't in Goodrich Goods."

The Goodrich advertising campaign, in its entirety, was one of very few campaigns that the officials of the advertising clubs selected to be shown at the Baltimore Convention.

DANIEL FLORY, of Flory Brothers, Pope dealers in Lancaster, Pa., was a recent visitor at the plant of the Pope Manufacturing Company, in Westfield, Mass., and at the company's offices in Hartford, Conn.



JOHN H. TRAGGESSER, agent for Reading Standard motorcycles in Lancaster, Pa., appears on the machine in the accompanying photograph. The picture was taken upon Mr. Traggesser's arrival in Reading, when he visited the city recently to call at the Reading Standard factory. The two passengers who appear in the photo accompanied the Lancaster agent on his fifty-mile trip to Reading, and it is worthy of note that the machine carried the extra weight without a murmur. There are several stiff grades between Lancaster and Reading, but Traggesser has climbed them quite frequently of late with a sidecar passenger, and several times with two companions, as in the instance when the picture was taken. He reports unusual interest in sidecars this season in Lancaster and vicinity.

BIG HAVERFORD INCREASE

MAX SLADKIN, live-wire proprietor of the Haverford Cycle Company, reports that his business increase in the current year over the first six months of 1912 has been in excess of 100 per cent. The total business for the month of May nearly reached $200,000.

The new branch in Detroit is building up a nice business and Mr. Sladkin states he is very gratified with the strides this branch has made thus far.

"Business conditions look good to me, and I predict that 1914 will be a very big motorcycle year," Mr. Sladkin recently stated, "and I for one will double my contracts."

AURANDT DIES SUDDENLY

WILLIAM K. AURANDT, of Altoona, Pa., for years past a district manager for the Miami Cycle & Mfg. Co., of Middletown, Ohio, died of apoplexy at his home on June 13. Mr. Aurandt spent much of his time on the road boosting Miami interests throughout his territory, and was one of the most popular workers on the company's staff. While Mr. Aurandt had been in failing health for several weeks his condition was not believed to be serious, and the end came very suddenly. He was stricken while sitting in the dining room of his home and died in the arms of his wife before medical help arrived. Mr. Aurandt was in his fifty-second year.

Guy Campbell in Front of His Charles City (Iowa) Headquarters.

A BUSY IOWA AGENT

GUY W. CAMPBELL, Indian agent at Waterloo and Charles City, Iowa, appears on the machine in the accompanying photograph, with his wife in the sidecar. The picture was taken in front of Campbell's headquarters in Charles City. Campbell lives at Waterloo and he and his wife make the trip to Charles City once a week. The round trip is about 120 miles and it takes Campbell from two and a half to three hours to ride one way.

COUGHLIN—ROY

PRACTICALLY all the local motorcycling organizations were represented on June 25 at the marriage of Miss May Roy to Eugene Coughlin, the manager of the Riverside Motorcycle Garage, 533 West 110th street, New York. The ceremony took place at the home of the bride, 171 West 102nd street, at 8 p. m.

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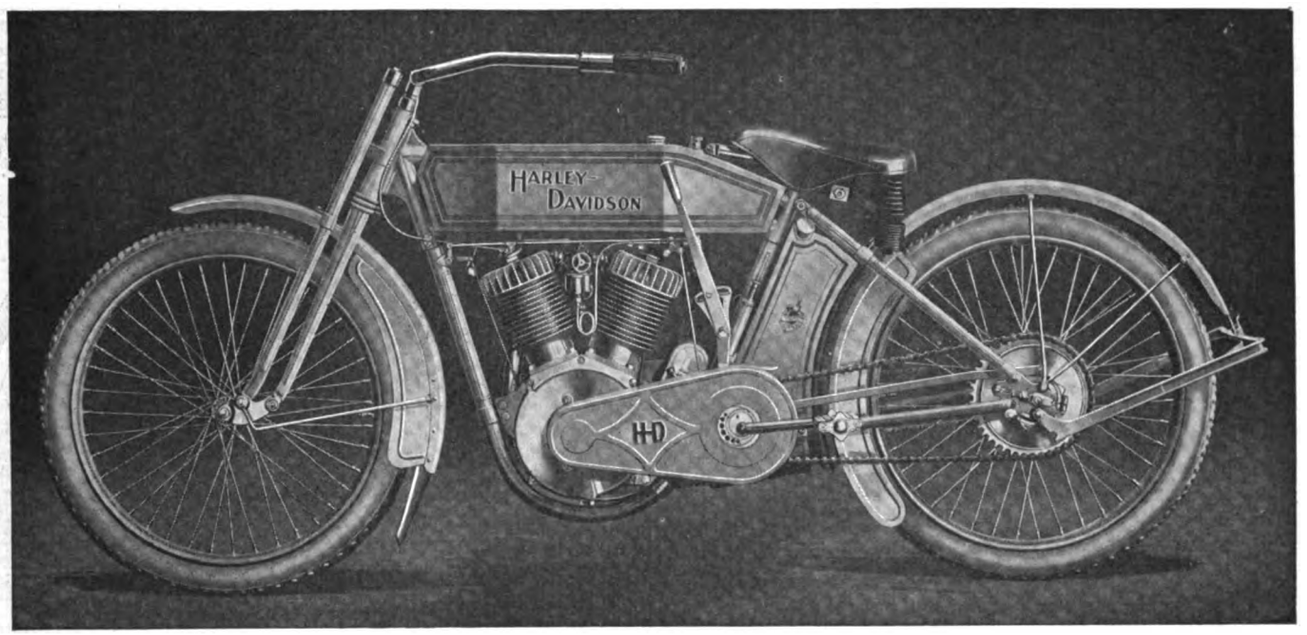

The Two Highest Scores

PEYTON READ and Thomas Callahan, both riding Harley-Davidson twins, were awarded 997 and 996 points respectively in the strenuous endurance run from East St. Louis, Ill., to Chester and return, May 11th.

The contest was so severe that no perfect scores were possible. The Harley-Davidson finished first and second and proved once more that Harley-Davidsons are just a little better than the best of the rest.

Harley-Davidson Motor Company

Producers of High Grade Motorcycles for More Than Eleven Years

478 C Street **Milwaukee, Wisconsin**

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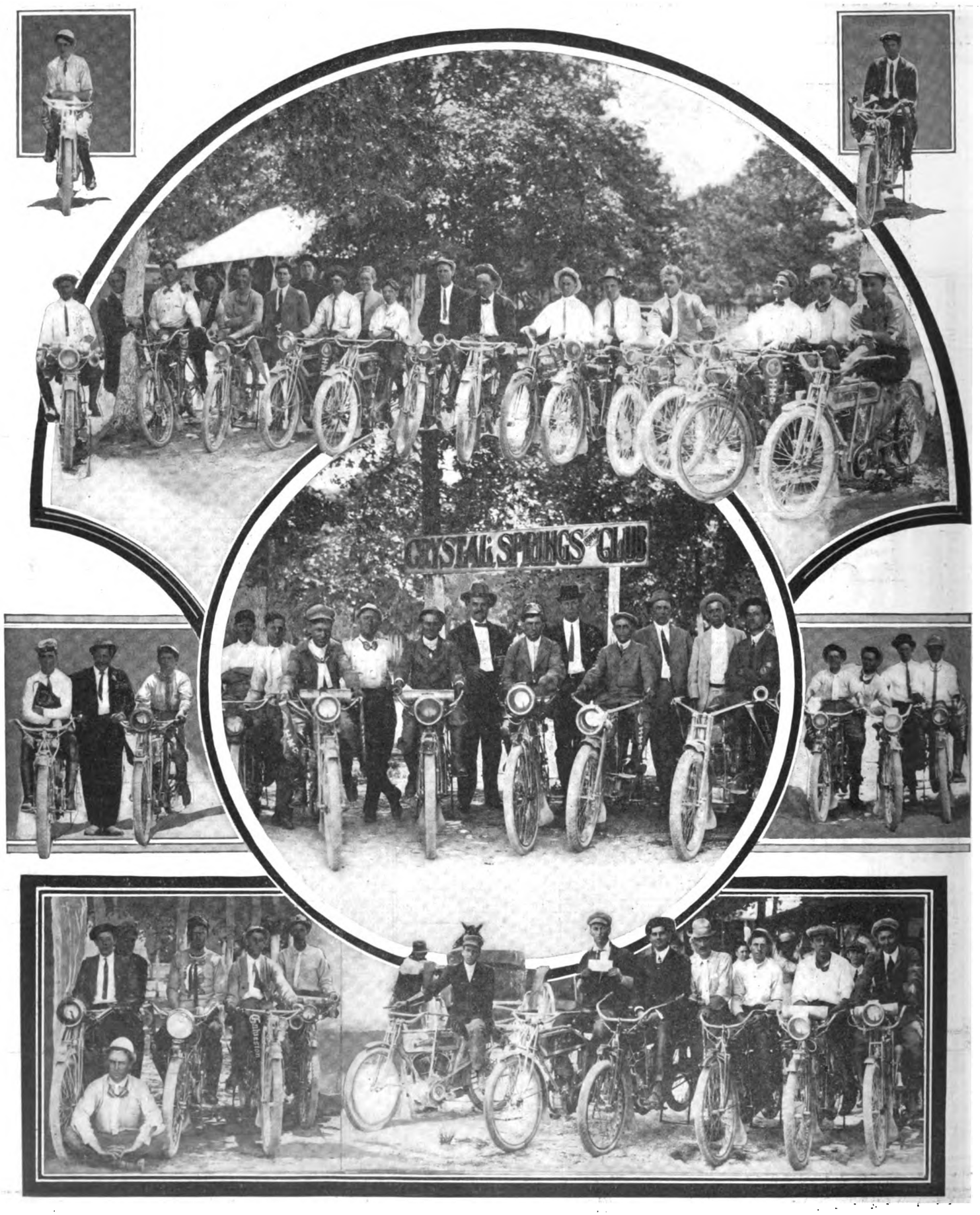

Enthusiasts of Houston, Tex., and Vicinity, as They Were Caught by the Camera Man on a Recent Successful Outing.

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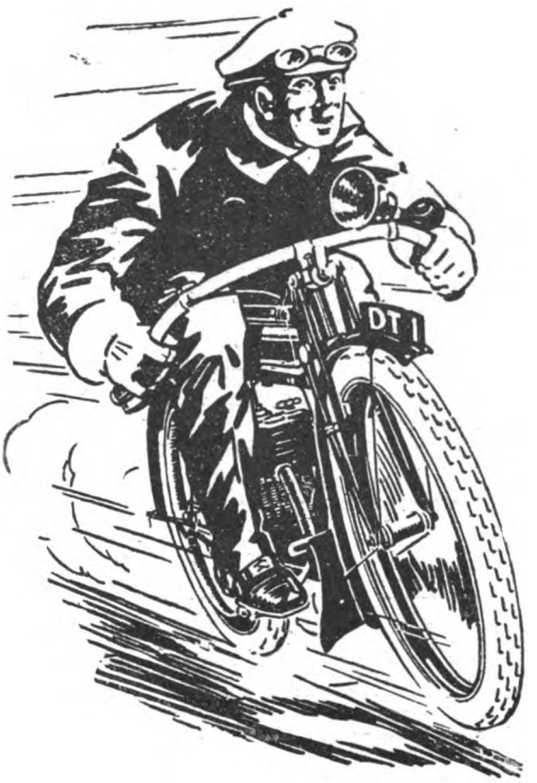

Bosch Again Wins

The Tourist Trophy

1st, 3rd, 4th used the	**Bosch Magneto**
1st, 2nd used the	**Bosch Plug**
Winners of Team Prize used	**Bosch Magnetos**
The fastest lap—by a Scott using a	**Bosch Magneto**
The record for the course	**Bosch Magneto**

—of course—

The Tourist Trophy Race was a supreme test—a test that established the excellence of material and workmanship that goes into Bosch Plugs and Bosch Magnetos.

The showing made by the Bosch Products in this race—as in the many preceding trials of national and international fame—was not an accident, not a mere chance performance, but is Proof Conclusive of Quality Supreme—a vivid and conclusive demonstration of Bosch Superiority.

Be Satisfied **Specify Bosch**

Write for Magneto and Plug literature

BOSCH MAGNETO CO. 206 West 46th St., New York

CHICAGO : DETROIT **DISTRIBUTORS IN ALL IMPORTANT CENTERS** **SAN FRANCISCO : TORONTO**

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MOTORCYCLE MART

One time, three cents a word; twice, two cents a word each insertion. Agents' cards, five cents per word; two or more times, three cents per word each insertion. No advertisement for less than fifty cents.

FOR SALE OR EXCHANGE

FOR SALE.—One 1912 Emblem motorcycle with sidecar; $125. One 2 h. p. M. and M. twin motor; carburetor, coil and muffler, $50. H. Haskel, Spencerville, Ohio.

HAVE YOUR license on neat and strong. Blue prints of five-minute-made holders for Indian 10 cents by first mail. G. W. Haywood, Kingsland, New Jersey.

FOR SALE.—Brand new Pope lightweight 4 with magneto and clutch; $143 cash; perfect condition; examination allowed. Address X, c/o MOTORCYCLE ILLUSTRATED.

MOTORCYCLES CHEAP.—Every motorcycle in stock must be sold this month; need room for large shipment of 1913 Eagles. Write for list "I." American Motor Co., 2724 Michigan avenue, Chicago, Ill.

FOR SALE.—My new 1913 Harley-Davidson Twin. Run less than 100 miles; perfect condition; better than new; a bargain. $250. Rex K. Jennings, Lawrence, Mich.

FOR SALE.—At best offer over $175, one absolutely new Pierce, 4 cyl., two speed, shaft drive; also one same kind, nearly new, with or without equipment. Can personally recommend this make, having ridden every model produced since 1908. H. E. Stout, 315 Washington St., New York.

FOR SALE.—New 1912 Flanders motorcycle, 4 h. p. With Splitdorf magneto, flat belt, machine complete with full set of tools for $119 f. o. b. Athens, Ga. A. A. Jordan, Athens, Ga.

WHY BURN or shock your fingers? Air adjuster for Pilot Jet on Indian carbureter—25 cents by first mail. G. W. Haywood, Kingsland, New Jersey.

FOR SALE.—1912 Indian Twin Two-speed with sidecar, Presto tank, Old Sol head light, tail light, horn, shock absorber on seat and speedometer; cost exactly $446.75. Is in absolutely perfect condition, but have purchased an automobile and will therefore not use it. Price $275. Dr. F. W. Steadman, Greenfield, Mass.

WANTED.—To exchange a 1-horse combination lunch, cone and popcorn wagon costing $387, used one season, fully equipped, for twin motorcycle not older than 1912, equipped and in A1 condition; Indian preferred. Write for photo and description of wagon to Fred T. Gilbert, Box 345, Delhi, N. Y.

FOR SALE.—Tandem attachment, complete; adjustable springs; cost $20; will sell for $10. George L. Vance, American District Telegraph Co., Bridgeport, Conn.

SOL. LAZARUS 216 East 59th Street
(The man with the goods) (at Queensboro Bridge)

WILL SACRIFICE new 1913 motorcycle (single) still in crate; big bargain. E. A. Hearn, Salisbury, Md.

FOR SALE.—Harley 1912 single. Run 400 miles. A1 condition. With equipment. Best offer over $135 takes it. W. D. Brooks, Cloverdale, Mich.

FOR SALE.—Two-speed Minneapolis, 26-in. wheels; good condition. $125. Arley Metcalfe, 926 Light St., Baltimore, Md.

DON'T BUY a V belt until you have seen the Duke V belt. Write today. Jas. Dukelow, 4509 Wilcox Ave., Chicago.

TO EXCHANGE.—Ten acres of Florida land adjoining Marshall Field's famous grove for 1913 twin Harley-Davidson. Y. Allen, Ft. Scott, Kan.

FOR SALE, — $240 — Latest Indian Twin (87E931), 3-in. tires, horn; bought Shirley's June 14; ridden short distance three times; no accidents; no damage; better condition than when purchased. Believe do not care for machine. May change mind after more experience. Cash. F. W. Babcock, 359 Broadway, New York.

FOR SALE.—Dayton Twin 9 h. p. De Luxe; never been used. We have no room for motorcycles. The first one who sends money order for $250 gets this brand new Dayton. Guaranteed. Douglass & Talbot, 109 East Ohio St., Indianapolis, Ind.

FOR SALE.—1913 Thor Twin (white); good as new; fully equipped, No. 7 Old Sol light, Stewart speedometer, Barco exhaust, horn, luggage carrier and cushion, Prest-O-Lite tank. $325. Good reason for selling. E. C. Gurnee, Bloomingdale, N. J.

WANTED.—Free engine clutch; also frame with tank, handlebars, wheels and seat post. H. C. Rusha, Jr., Old Town, Maine.

FOR SALE.—1912 Twin M. & M., in fine running condition; $140. Arthur Wright, Commercial Hotel, Du Bois, Pa.

FOR SALE.—Having discontinued the racing game I will sacrifice my two direct-drive, ported, racing machines; guaranteed very fast, one 7 h. p. and one 5 h. p. Indian. Earle S. Eckel, Washington, N. J.

ONE NEW SIDE CAR, will fit any motorcycle; complete, $25. H. Kaskel, Spencerville, Ohio.

HELP AND SITUATIONS WANTED

SALESMAN WANTED.—To sell well advertised and much called for motorcycle article as side line. Big money to be made. Write at once stating full particulars. Replies held strictly confidential. Address C. M. C., care of MOTORCYCLE ILLUSTRATED, New York.

WANTED.—Salesmen to carry a well-known accessory as a side line on commission in restricted territory. Thos. M. Dunham, 1443 Niagara St., Buffalo, N. Y.

MISCELLANEOUS

BARGAINS in motorcycle supplies and slightly used motorcycles. Write for particulars. Jewell E. Pierce, Magnolia, Miss.

REWARD.—Twenty dollars ($20) reward for the return of Pope motorcycle, Motor No. 370, Wata Wata belt, Columbus 1913 tag No. 19. Twenty dollars ($20) additional for the arrest and conviction of man giving false name and address in order to rent same. Name given, James A. Bogart, 482 S. Front street, deaf and dumb, or pretends to be so. E. M. Gorrell, 1243 N. High street, Columbus, Ohio.

FOR SALE.—Large Stock, well established motorcycle business in the best field in New Jersey; agent for two leading motorcycles, bicycles, with a large accessory patronage. Address Business Enterprise, MOTORCYCLE ILLUSTRATED.

CEMENTLESS PATCH in one piece, 1¾ wide, one foot long. Cut your own patch, large or small, to suit. Can mend tear in tube any length. Sample box mailed for 35 cents. Motorcycle Tire Jimmy Co., St. Marys, Ohio.

MAKE YOUR MOTORCYCLE PAY by using a kodak under our direction. We want travel pictures. Send for particulars. Pacific Motographers, Browning and Addison streets, Berkeley, Cal.

NEW SLEEVE DEVICE for Indian double jet carbureter, starts motor instantly, 60 cents postpaid. State whether for single of twin. G. A. Allen, Livermore Falls, Me.

DEALER'S CARDS, Etc.

CLEARANCE SALE OF USED GUARANTEED MOTORCYCLES
1910 5 h. p. Twin Indian, $75; 1911 7 h. p. Twin Indian, $125; 1912 4 h. p. Indian, $100; 1910 4 h. p. Magneto Indian, $70; 1911 4 h. p. New Era, $150; 1910 3½ h. p. New Era, $100; Merkel Light 2¾ h. p., $35; 1911 5 h. p. Thor, $90; 1912 6 h. p. Twin Merkel, $145; 1912 Twin Excelsior, $150. A. H. Patterson, 1080-1082 Bedford Ave., Brooklyn, N. Y.

GUS ROTHOLZ, agent for Indian and Excelsior, 1491 Fifth avenue, between 119th and 120th streets, New York. Telephone, Harlem, 2337.

RIVERSIDE MOTORCYCLE GARAGE.—Distributors for Reading-Standard and agents for Eagle motorcycles, Simplex side cars and F. N. combination tandem attachment and luggage carrier, complete, $15. 1913 models in stock; also a large number of used machines at bargain prices. A complete machine shop; all repairs and supplies. 533 West 110th street, near Broadway. Tel. 10071 Schuyler.

"BOB" BRAZENOR, specialist on repairs, Brooklyn agent for Harley-Davidson and Excelsior motorcycles. Parts and supplies for all makes in stock. 1507 Bushwick Ave., Brooklyn, N. Y.

T. J. SIXSMITH, expert repairing; agent for R.-S., Indian and Excelsior motorcycles. 203 W. 100th street, New York.

M.-M. AND EAGLE motorcycles. Two big twins—$240 and $275. Two big singles—$200 and $235. The largest and most powerful line in America. Full line of parts and accessories at George P. Jenkins, Eastern Distributor, 312 Amsterdam Ave., New York City.

THE NEW YORK Motorcycle Co., 782 8th avenue, New York City. Distributors of Thor motorcycles and parts. We have the only supply of parts in America for F.-N. and Royal Pioneer motorcycles. We also carry a big stock of parts for Indian, Curtiss, M.-M. and R.-S. We have at all times over 50 used machines at all prices. We repair broken cylinders, pistons and crank cases. We have the largest and best equipped motorcycle garage in the country and we do reliable repairing.

HAVE YOUR motorcycle overhauled now; expert work, moderate charges; ten years' experience in motorcycle repair work. Parts for N. S. U., Indian and Peugeot. Metropolitan Motorcycle Repair Co., 320 Amsterdam avenue, cor. 75th street, New York. Tel. No. 1001 Schuyler.

B. & C. TWO-SPEED and free engine gears for chain-driven motorcycles of the counter-shaft type. Bushnell & Cannon, 1268 East 80th street, Cleveland, Ohio.

THE LATEST AND BEST guaranteed Motorcycle Supplies at lowest prices will be shipped prepaid same day your order is received. You get satisfaction in every package. Write for largest Motorcycle Supply Catalog ever printed. Motorcycle Equipment Co., Hammondsport, N. Y.

BICYCLES, MOTORCYCLES AND FORD AUTO SUPPLIES—lowest prices. Get our catalog quick. Souvenir FREE this month. Rex Bicycle Co., 1947-1949 Orchard street, Chicago.

BARGAINS in motorcycle supplies and slightly used motorcycles; all makes at lowest prices. Write today for my price-slashing bargain list. Write today; don't put it off another minute, for it means dollars saved. Jewell E. Pierce, Magnolia, Miss.

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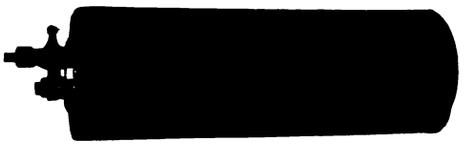
HO! FOR THE GAS TANK THAT IS NEVER EMPTY. POPULARITY OF CARBO-LIGHT TANKS UNQUESTIONED.



The continual demand for CARBO-LIGHT TANKS goes on unabated. Motorcycle Riders are finding that they cannot afford to be without a CARBO-LIGHT TANK.

It is certainly gratifying to know that when your tank is empty you can recharge it in a moment's time at a cost of FIVE CENTS, and be on your way.

Beautiful, nickel plated tank, with bands to fit any machine.

The CARBO-LIGHT stands in a class by itself.

It has no competitor, as there is nothing like it on the market.

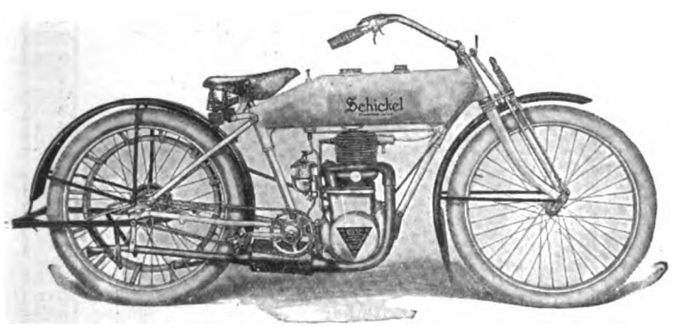
If you want a light, why not get the Best there is, when the price is in proportion?

THREE HUNDRED new agencies created in the month of May! Will you be the next?

Individual Riders, we cater to your business, and if there is no agent in your vicinity, write us direct and get our proposition. Every inquiry is replied to the day it is received, by our efficient Sales Department. Needless to say, there is some night work in this department.

CARBO-LIGHT SALES CO. - Anderson, Ind.

Schickel Schickel



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FIRST, LAST and ALL THE TIME

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MOTOR CYCLES

ARE DESIGNED AND BUILT FOR

IF YOU WANT ABSOLUTE DEPENDABILITY WRITE TODAY, AND LET US TELL YOU ABOUT THE MOTOR WITH OVER THIRTY LESS WEARING PARTS

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59 GARDEN STREET STAMFORD, CONN.

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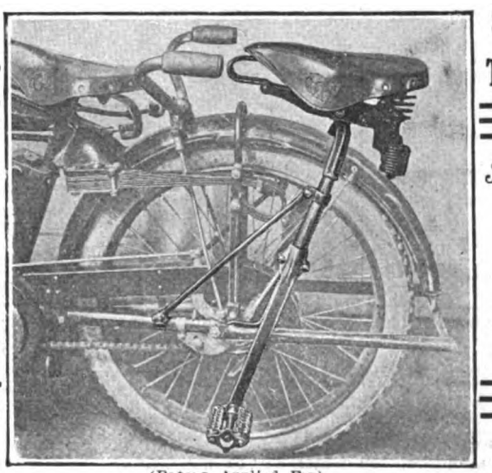
"E and C" Spring Tandem

Makes a Crony of old man Comfort



Makes every road a Boulevard

(Patent Applied For)

The "E & C" Spring Tandem is without question one of the strongest and most comfortable tandems ever built. It is especially designed for lady riders and will be found ideal for this purpose. Note carefully the following exclusive features:

1—Equipped with BOTH compression and recoil springs, absorbing all downward and upward shocks and vibrations.
2—Lowest possible saddle position—only 32 inches from ground to top of saddle.
3—Built of cast steel fittings and heavy-gauge tubing, and strongly reinforced at vital points
4—Has absolutely no side-sway, so common to most tandem attachments.
5—Equipped with handle bars, pedal foot-rests. Mesinger Standard No. 4 saddle. Nickel plate finish.
6—Pedal foot-rest leg made to swivel on tubing, which prevents snapping off in case of a fall.
7—Sold under guarantee of freedom from imperfections.

Retail Price, Complete, $16.00

Dealers' quotations on request.

When writing for catalog, please mention your dealer's name.

E. & C. MFG. CO., 1716 Ludlow St., Phila., Pa.

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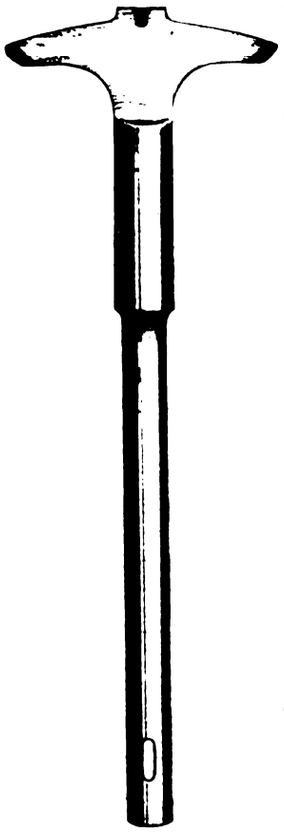
Section of head showing rim of cast iron.



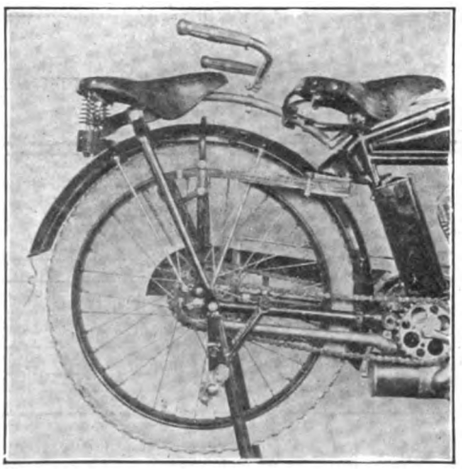
This Valve with the Cast Iron Seat

It is the first valve to give unqualified satisfaction in motorcycle service.

The principles on which it is designed have been worked out in years of experience in valve manufacture and every valve trouble is overcome by a positive remedy which has been tested and proved good.

If you use valves in quantity it will pay you to investigate.

The Electric Welding Products Co., Cleveland, O.



Model A. Patent Pending.

MUELLER TANDEM ATTACHMENT

TO FIT ALL INDIAN MOTOCYCLES

Specially Adapted to New Spring Frame Models

MODEL A attachment is for 1913 spring frame machine and does not interfere with frame action. Attachment is made of steel tubing and drop forgings, well brazed—enameled and nickeled. Large Troxel motorcycle saddle, adjustable handle bars, standard No. 3 pedals. Enameled red to match motorcycle.

L. J. MUELLER 6307-09-11 Woodland Ave. CLEVELAND, O.

There is as much water for drowning purposes beneath a row boat as there is beneath a battleship—

and the chances of shipwreck are greater on board the row boat than on board the battleship—

Yet the battleship will carry life-preservers while generally the rowboat won't.

The Automobilist who carries a

Schrader UNIVERSAL TIRE PRESSURE GAUGE

and uses it, is on a battleship and carries a life-preserver. The motorcyclist who does without a Schrader gauge and inflates his tires by guess work is in a row boat and without a life-preserver. Stop inviting disaster and get a life-preserver. A Schrader gauge will not only preserve the life of your tires, it may preserve yours.

PRICE ONE DOLLAR

For sale by Tire Manufacturers, Jobbers, Dealers, Garages, or

A. Schrader's Son, Inc.
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Solar Quality is as Dazzling as the "Solar Light"

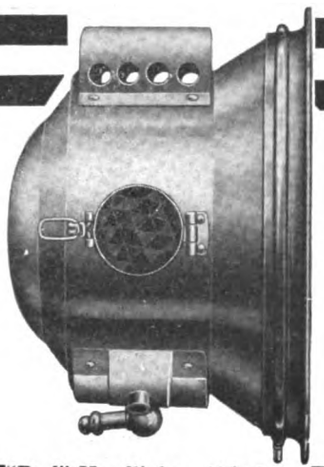
"The Lamps With a Pedigree"

The rider who is looking for a lamp in which **beauty**, strength, efficiency and dependability **are** evenly and strongly represented, **should** investigate the SOLAR LINE.

The dealer who wants to add to his stock a **fast-selling**, satisfaction-creating, profitable line of motorcycle lamps, should write us at once.

Is there any reason why a line of motorcycle lamps, aside from its own extraordinary merits, made by experts trained in the making of nothing but motor lamps for eighteen years, should not have your earnest consideration?

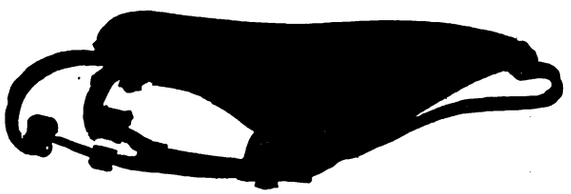
Get our catalog today.



"Dad" Headlight. 195 Nickel or Black and Nickel, Each $5.00

The Badger Brass Mfg. Co.
Kenosha, Wis.
New York City

Mesinger



THE MESINGER "SUPERBA"

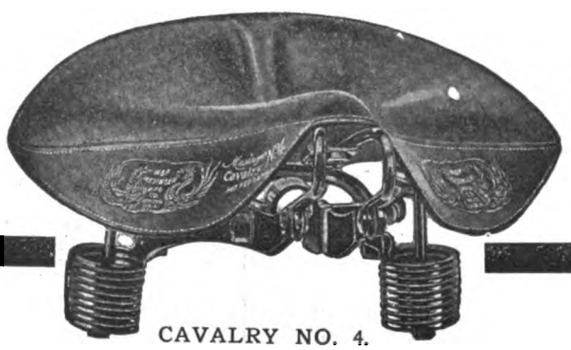
The Mesinger Saddle has done more to place the motorcycle upon a firm foundation as a supremely comfortable means of locomotion than any other feature of the two-wheeler now in use. Take away Mesinger comfort from a motorcycle and you have a poor thing indeed.

Mesinger Saddles
Most Comfort-Least Wear

Superba, Cavalry and Standard Saddles are the highest type of seating comfort ever devised for a motorcycle. Each has distinctive features of its own such as the leaf springs of the Superba, the broad, non-stretching low-saddle position of the Standard and the hand padded shape conforming construction of the Cavalry. The rider specifying any of the three Mesinger models is sure to be *more* than satisfied.

"Ask The Rider and Watch Him Riding"

H.&F. Mesinger Mfg. Co.



CAVALRY NO. 4.

144th St., Austin Place
NEW YORK

Mesinger

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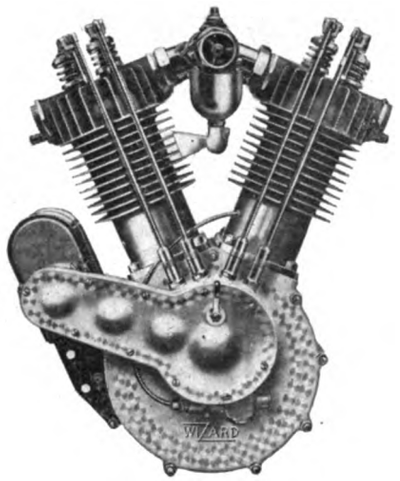
WIZARD MOTORS

—WITH—

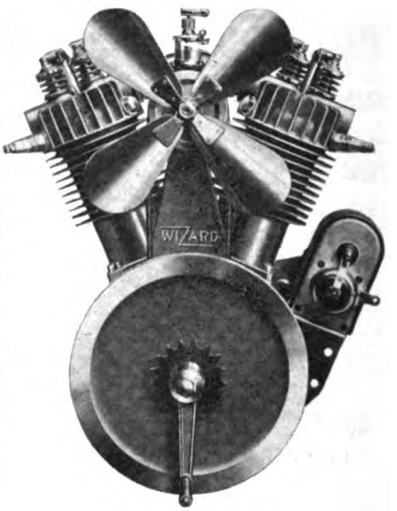
Conspicuous simplicity, instantly meet the approval of both manufacturers and users of motorcycles and cyclecars. They quickly demonstrate what engines for their purpose should really be, and merit consideration in the selection of a power plant for your product.

Piston displacement 70 cubic inches. Overhead valves, long stroke, double ignition, interchangeable parts, oil-tight case, light weight and many other features, strictly exclusive, place WIZARD MOTORS in a class unequaled for efficiency.

Details furnished upon request.



WIZARD MOTORCYCLE MOTOR
10 H. P. — 77 Pounds.



WIZARD CYCLECAR MOTOR
10 H. P. — 100 Pounds.

WIZARD MOTOR CO., INDIANAPOLIS, IND.

H. T. ROBERTS, Representative, Railway Exchange Bldg., Chicago

A Fine Tandem *Built for* Service

Price $7.00

Complete with Cushion, two Straps and Foot Rests. Clamps Firmly to Carrier. Guaranteed to stand up

This one for **1913 INDIAN**

"Majestic" Tandems for all other Motorcycles.

We build fine **SIDE-CARS** and numerous other accessories. See page 20, this issue.

Write for our Catalogue.

The Majestic Manufacturing Co.

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One of the 37 kinds we manufacture

Adjustable Sectional Vulcanizer

Repairs perfectly all sizes bicycle, motorcycle and auto tires and tubes

Get our 44-page catalog

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It is a meaty little book

Mott Rims like all well constructed, high quality products show their excellence by actual test.

Mott Rims

stand the strain of the severest road tests unflinchingly and with plenty of reserve strength. They are tremendously strong and elastic.

THE MOTT WHEEL WORKS
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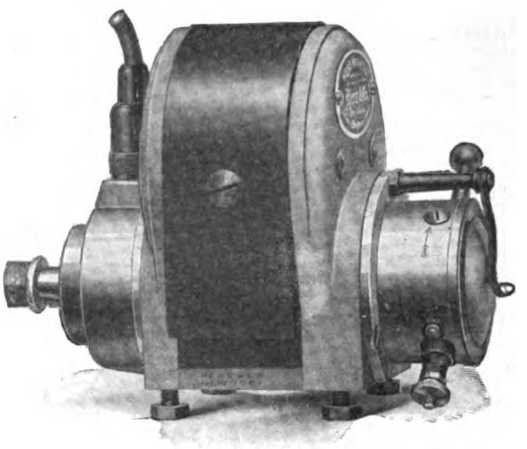

HERZ MAGNETO

HERZ MAGNETO is far superior to other Magnetos. In the official English test against 15 competitors, it was adjudged the most efficient Magneto of its size and weight by 25%.

HERZ MAGNETO is small and light, and absolutely protected against atmospheric conditions, dust and moisture. It was run completely submerged in water for 16 days at this winter's New York and Chicago Shows.

The strength and reliability of HERZ MAGNETO are attested by the fact that it is used by so many racing men.

HERZ & CO., 295 Lafayette St., NEW YORK

Makers of the HERZ PLUG.

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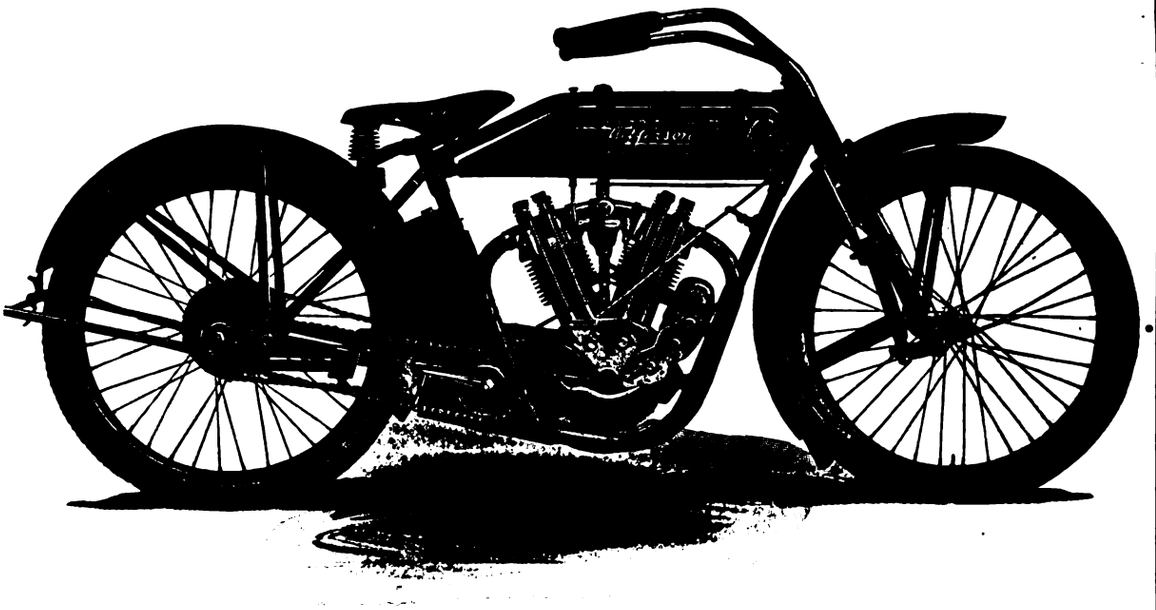
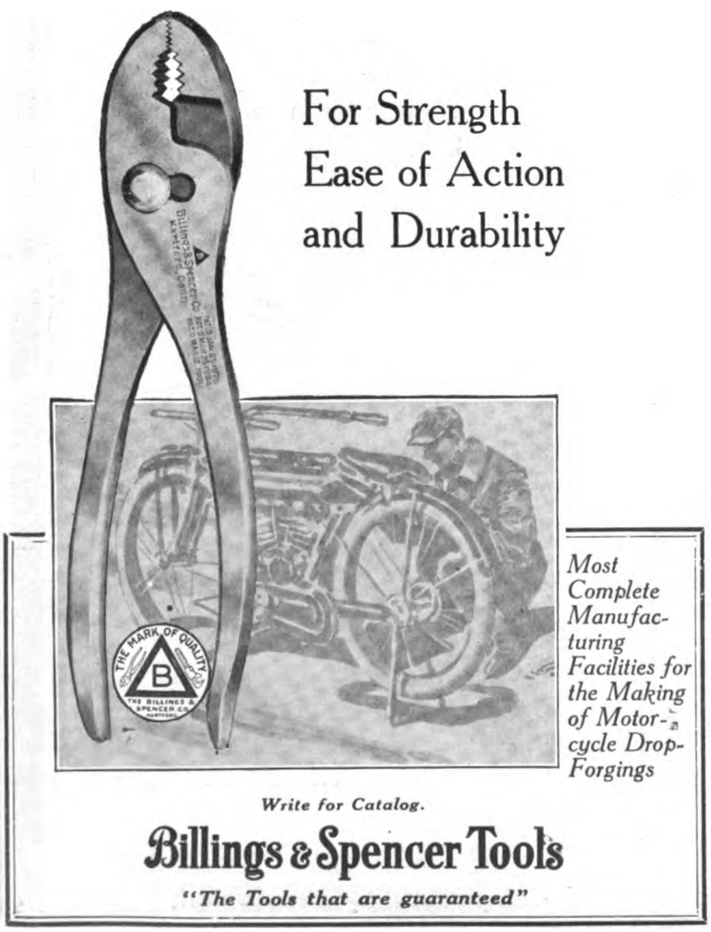
Handsome Is As Handsome Does



It's a beauty and no mistake, but don't judge by the looks alone. Note the automobile leaf springs, front and rear—the clean-cut powerful motor, with overhead valves, its perfect balancing. Note the absolute absence of superfluous parts, the simplicity of the grips, without clutch levers of any sort. Do you know what that stock motor can do, without special preparation or "tuning up" of any kind? Oh, only about 78 miles an hour! And without turning a hair. Yes, it's there with speed, but it's got service, too, in its make-up.

Our catalog tells the rest. Post a postal for it NOW.

Waverley Mfg. Co., Jefferson, Wis.



For Strength
Ease of Action
and Durability

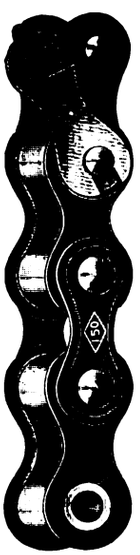
Most Complete Manufacturing Facilities for the Making of Motorcycle Drop-Forgings

Write for Catalog.

Billings & Spencer Tools

"The Tools that are guaranteed"

No. 150 DIAMOND MOTORCYCLE CHAINS



You'll find them on the most of the best machines made—ample proof of their reliability.

LOOK FOR THIS
TRADE ◇ MARK
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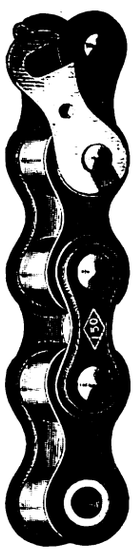

Diamond Chain & Manufacturing Co.
Indianapolis, Indiana.

Capacity 8,000,000 feet per year

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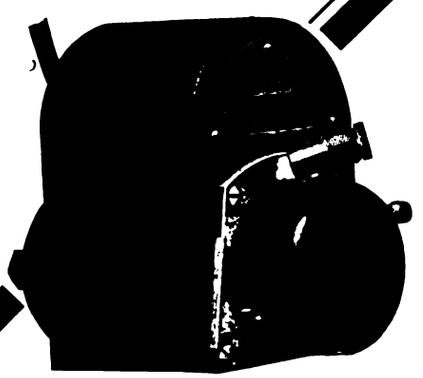
Cut 'Em Out

THE trouble you can't locate may be in your magneto. Trouble seldom troubles you if it's

The Berling Magneto

All parts are **accessible** if trouble ever does come.

Write today for free illustrated booklet.



ERICSSON MFG. CO.
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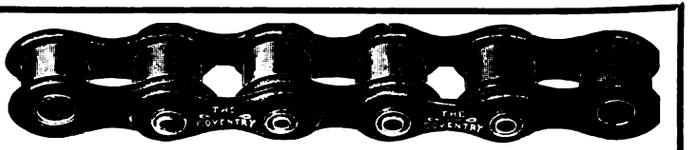
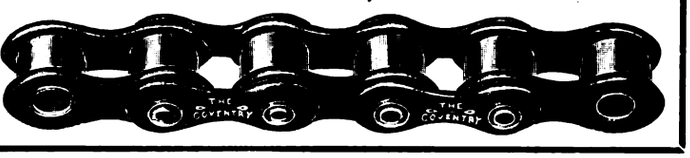


"The Coventry" Chains

POWER—SPEED—FLEXIBILITY—ENDURANCE—LIGHTNESS

In no other chains are these qualities so strongly apparent as in "The Coventry" Chains. If the fact that all the speedsters abroad, as well as a good many in America, use and heartily endorse "The Coventry" Chain is any criterion, then they are the logical chains for *you*. Don't you think so?

SARCO ENGINEERING CO.
112 Broad Street, New York



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Rims
Pulley Rims
Mud Guards

As pioneers in the production of these articles we have acquired a reputation for high quality that becomes an asset to all who use our products.

Our frame parts are made from individual blue prints only and we use in their construction only the finest quality of

"Standard Steel Tubing"

THE LIGHTEST, STRONGEST, SMOOTHEST STEEL TUBING MADE

THE STANDARD WELDING COMPANY
CLEVELAND, O.
OFFICES IN
New York Chicago Detroit

MECO

ONE OF OUR
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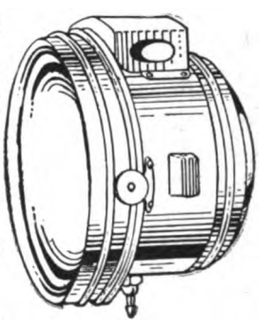

Highest grade gas lamp with 5" Mangin mirror lens. Others get $5.00.

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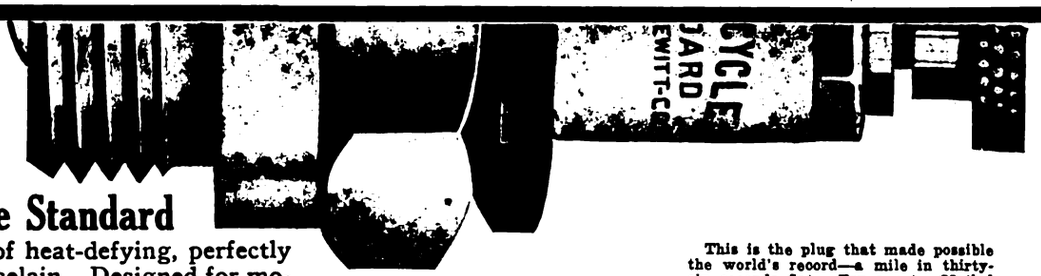

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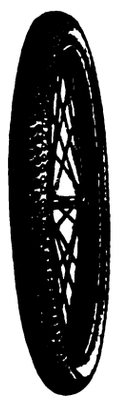

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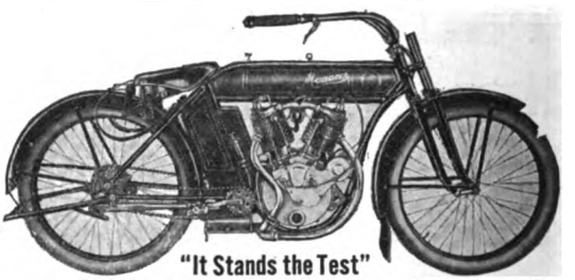

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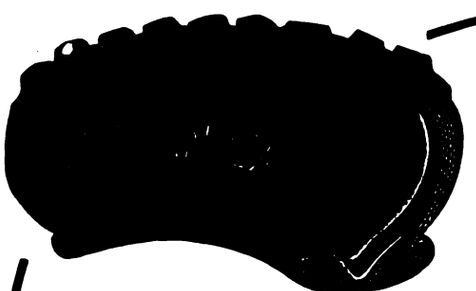

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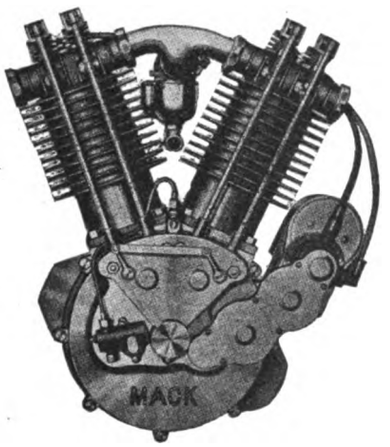

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If it's a *Wetprufe* motorcycle belt, you are guaranteed absolute belt satisfaction this year.

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That's the kind of a belt you want, isn't it? Then, why not get it?

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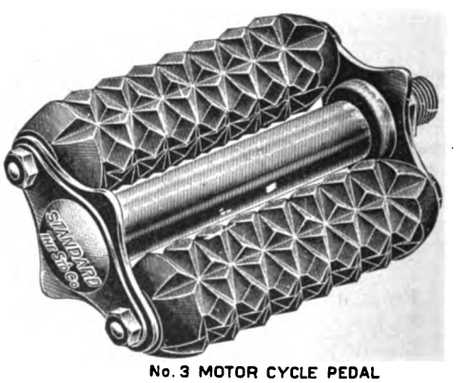

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You get the fattest spark with a J-M SPARK PLUG

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In a recent test, 58 horse-power was the greatest power developed by a motor using various *well-known* spark plugs. Yet when using J-M Plugs under exactly the same conditions, this motor *developed over 62 horse-power!*

J-M Spark Plug gives the fattest spark for three reasons: First, it is doubly insulated—no chance for leakage of current; second, the centre electrode offers the least resistance to the flow of current; and, third, the firing points are made of platinum-iridium and nickel-alloy and offer the greatest resistance to the current without becoming overheated themselves.

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"It Shows What Your Motor Can Do"

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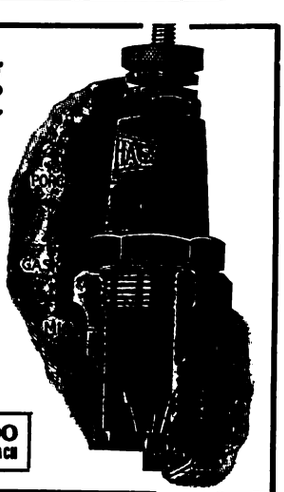

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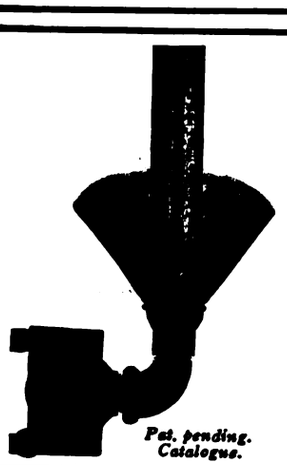

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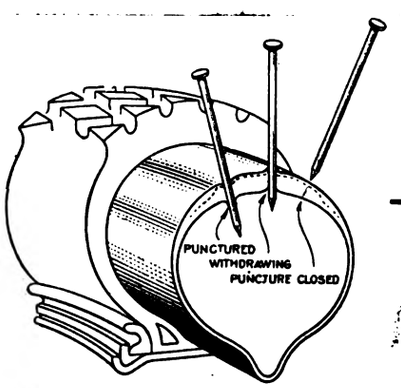

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Fifth: It assures you of not being obliged to repair a puncture on the road and gets you "there and back" on full tires.

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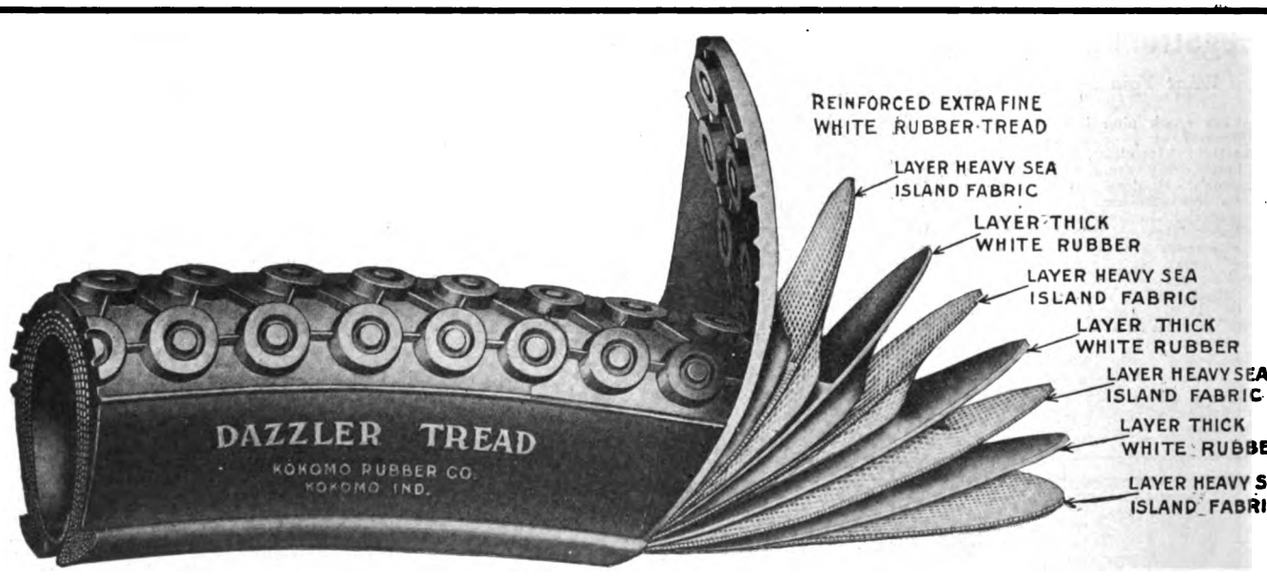

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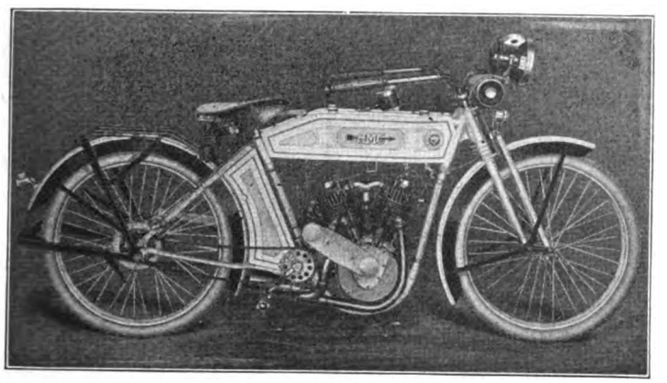

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is the horn that sells and makes money for the dealers.

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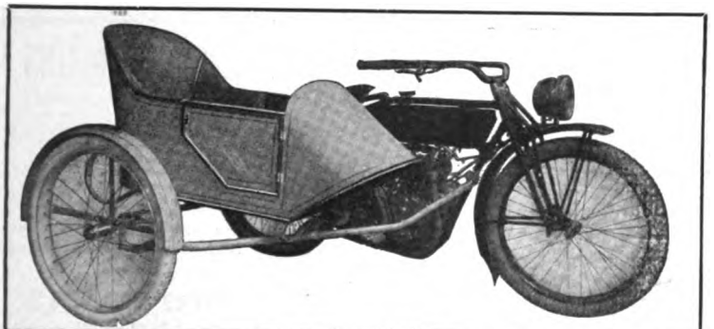

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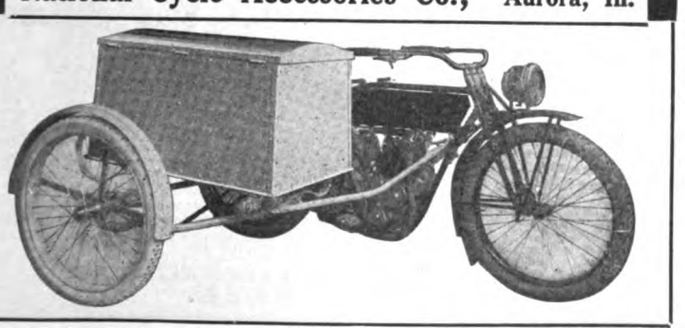

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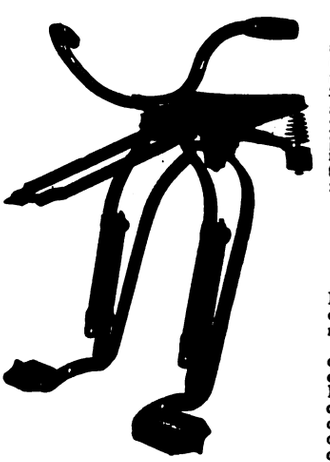

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By a peculiar and ingenious invention, for which patents have been allowed, the Handle Bars and Pedals are caused to float with the saddle, insuring the maximum of comfort and smooth riding on the roughest of roads.

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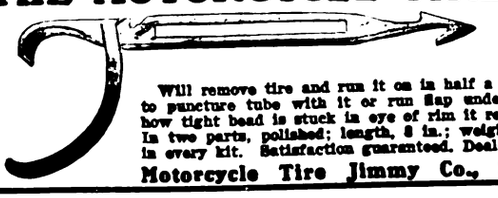

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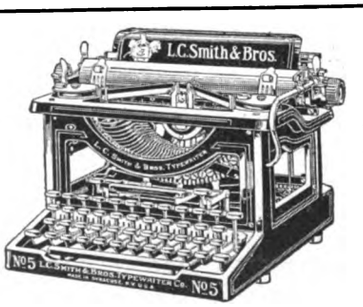

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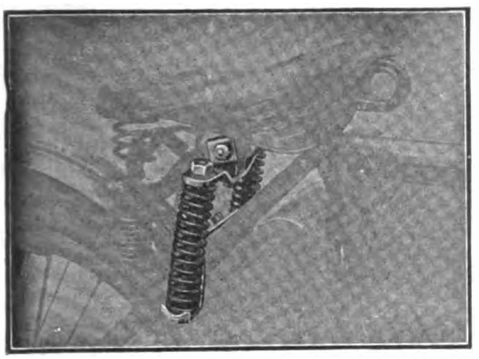

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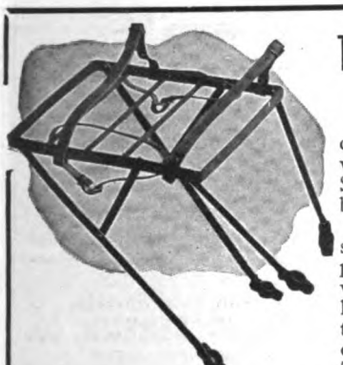

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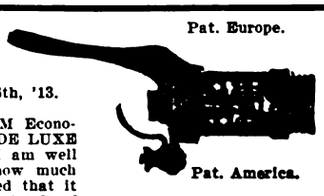

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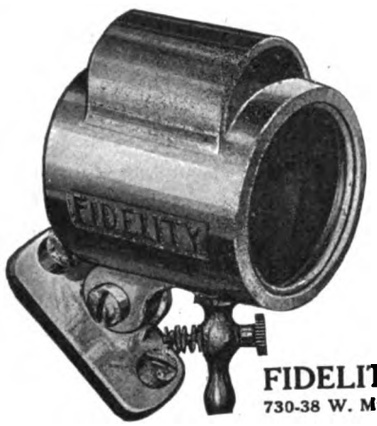

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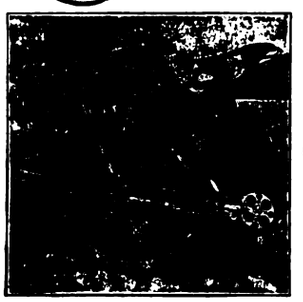

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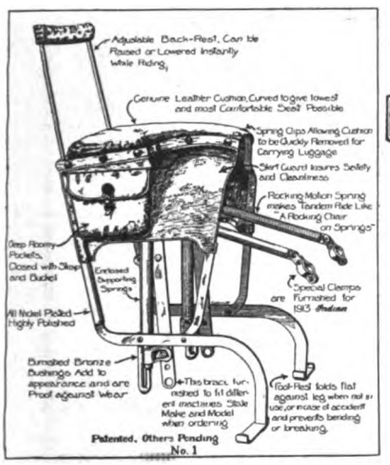

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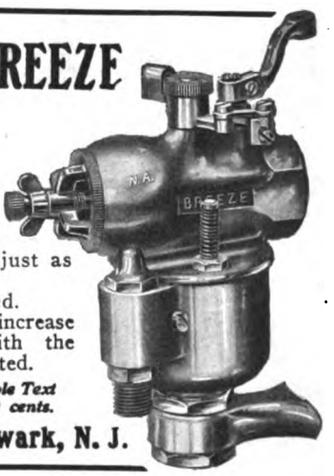

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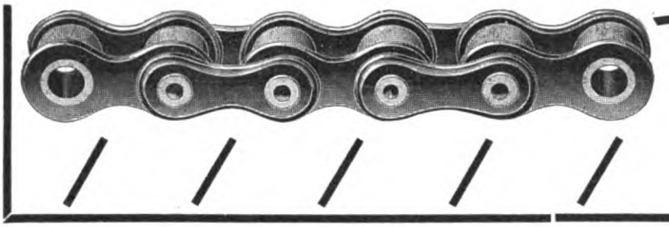

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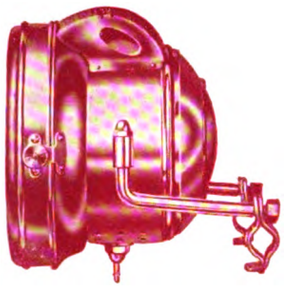

PRICE $6.50

Diameter of door, 8 in. Diameter of lens, 6 in.
Candle power, 1500 Weight, 4 lbs. 2 oz.
Brackets per pair, $1.00 Bezel, 50c. extra

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POWER—EFFICIENCY—QUALITY

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You ride a twin because it has the reserve power to draw on.

By using this large lamp you obtain a light penetration to be secured in no other way. No. 8 is the most powerful motorcycle lamp made by 500 candle power.

No. 8 is equipped with ball pin hinges, special German lava burners, automobile type, heavy double thick door glasses, and specially ground Mangin mirror lenses. Bodies are made of heavy gauge brass, drawn from one piece of metal and door frames of special beaded construction to give them strength.

OLD SOL No. 9 TAIL LAMP

Price $1.50

Weight 8 oz. Diam. of body 3 inches.

Acetylene type. Regular generator can be used for operating. Tubing easily connected.

Lamp bracket "P" to bolt to mudguard, with bolts, included in listed prices.

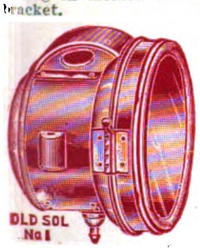
"OLD SOL" Tail Lamp No. 9 fills all requirements of the law in most localities.

OLD SOL Nos. 1 and 2

These were the first models of the "Old Sol" made.

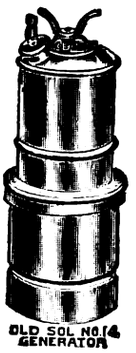
This coming season they will be equipped with 4½ in. ground Mangin mirror lenses, supplying an increased candle power over the previous models.

Lamps Nos. 1 and 2 are identical in size, the difference consisting in method of attaching to bracket.



PRICE $4.25.

Diameter of door, 6¼ in.
Diameter of lens, 4½ in.
Candle power, 600
Weight, 2 lbs.
Bezel, 50c. extra



OLD SOL GENERATOR No. 14

One-half the capacity of Generator No. 5, otherwise identical in construction except that bottom is held to top with special quick action fastener.

Height, 7 ins. Diameter, 2½ ins. Weight, 17 ozs.

Price $2.50

Bracket "G." For Generator No. 14. Attaches to any standard size frame tube.

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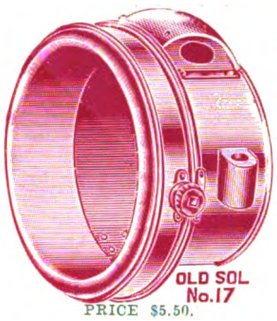
Bracket "I." For Generator No. 14. Attaches to any front or rear flat fork side.

Weight 1 lb.

Price $1.00



PRICE $5.50.

Diameter of door, 7 in. Diameter of lens, 5 in.
Candle power, 1000 Weight, 3 lbs.
Brackets per pair, $1.00 Bezel, 50c. extra

No. 17 is second to No. 8 in Power, Efficiency and Quality. It also has abundant power to draw on. It is next to the most powerful motorcycle light manufactured, being only exceeded by Old Sol No. 8. Like No. 8 and No. 1 and No. 2 it is equipped with ball pin hinges, special German lava burners, automobile type, heavy double thick doors, glasses, and specially ground Mangin mirror lenses. Body is made of heavy gauge brass, drawn from one piece of metal and door frames of special beaded construction to give them strength. Old Sol No. 17 differs from No. 8 in that it is smaller, lighter and less powerful.

OLD SOL ELECTRIC TAIL LAMP

MODEL NO. 20.

Description. Weight 22 ounces. Combination bracket holds number plate and allows white light from lamp to illuminate same. Red jewel on head throws rear signal. Burns from 20 to 25 hours intermittently. Supplied complete with 1 candle power bulb and battery No. 790.

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1 C. P. Mazda Bulb No. 1198 .50
No. 790 Battery..... .50
Bracket for lamp and number plate complete with bolts and nuts..... .50

Specially designed bracket enables rider to detach lamp and use same for trouble lamp.

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The Diamond Among Motorcycle Lamps

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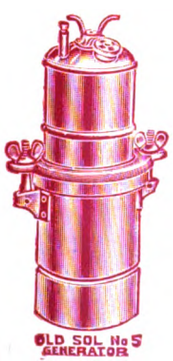

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New type double clamp, coupling bottom portion to top. May be readily separated for cleaning and quickly reassembled. Fitted with sifting carbide chamber, allowing ashes to fall below. Capacity, 12 ounces carbide, producing 3¼ cubic feet of gas. Enough to run lamps Nos. 1 or 2 about 9 hours, and lamps Nos. 8 and 17 about 6 hours, at full candle power. Gives a steady flow of clean cool gas. Height, 8½ inches; diameter, 3¼ ins. Weight, 25 ounces.

Will supply sufficient gas to burn tail lamp at the same time as searchlight.

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Bracket "E." For Generator No. 5. Attaches to any standard size frame tube. Weight 12 oz.

Price $1.00

Bracket "H." For Generator No. 5. Attaches to any front or rear flat fork side. Weight 1 lb.

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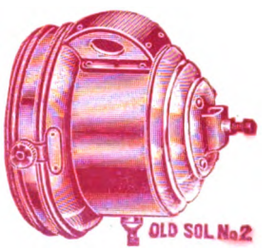

PRICE $4.25.

Diameter of door, 6¼ in.
Diameter of lens, 4½ in.
Candle power, 600
Weight, 2 lbs. Bezel, 50c. extra

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5—**CARBURETER DRAIN PIPE** takes care of overflow (due to priming), directs it to the ground and away from motor and frame parts. Results in increased cleanliness.

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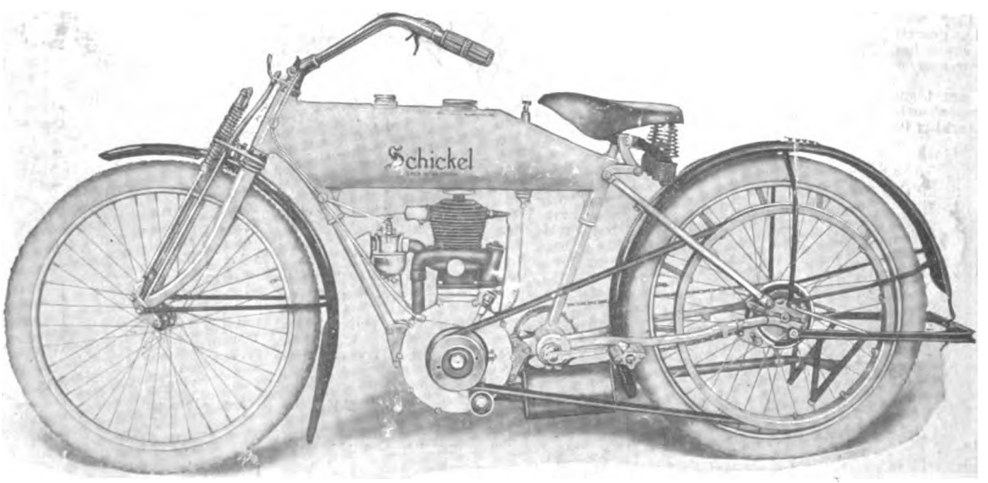
See them at the shows or write to-day { **New York, Grand Central Palace. Space No. 716.**
Chicago, Mnfrs. Exhibition Bldg. Space No. 43.

THE SCHICKEL MOTOR CO. 59 Garden Street STAMFORD, CONN.



1913 Five Horse Power SCHICKEL, Belt Drive.

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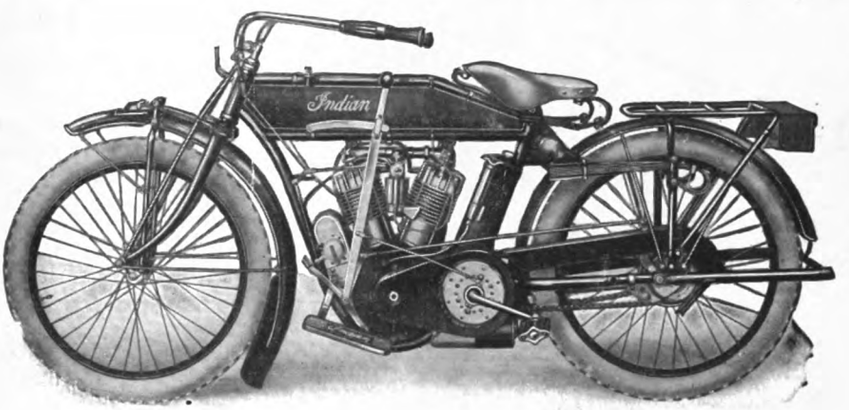
MOTORCYCLE ILLUSTRATED

THURSDAY, JANUARY 23, 1913

Issued Every Other Thursday by the Motorcycle Publishing Co., 51 Chambers St., New York

A STUDY IN CONTRASTS



The Indian Motocycle

To inspect the Indian in exhibition with its fellow motorcycles is the surest method of grasping its merits.

At the Motorcycle Show last week in New York, it was obvious to the most casual observer that the 1913 Indian had successfully solved the problem of **Comfort for the Rider.**

The new CRADLE SPRING FRAME marks the first radical departure from the inefficient and outworn principles of bicycle spring construction. It represents the successful application of the automobile system of spring suspension. This in a minor form has been in use on the Indian front fork for the past 4 years. The Indian is now leaf sprung fore and aft.

Another distinguishing comfort feature of the 1913 Indian, which will be appreciated by anyone who has ever ridden a motorcycle, is the equipment of footboards in addition to pedals, giving the rider the choice of two comfortable riding positions with the double brake action assured in each.

The Indian stood out at the Show as the ideal cycle motor—not as merely a motor-driven bicycle.

We will exhibit at the Motorcycle Manufacturers' Show at Chicago, February 3rd-8th.

THE HENDEE MFG. CO., Springfield, Mass.

Wherever you ride a cycle motor you'll find an Indian dealer

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The Choice of Multitudes

The Great Machine-Made Motorcycle Tires

Goodyear Motorcycle Tires have won their spurs.

Thousands of riders this year picked them for winners. Nor were they disappointed.

And next year other thousands will ride these tires with equal pleasure and profit.

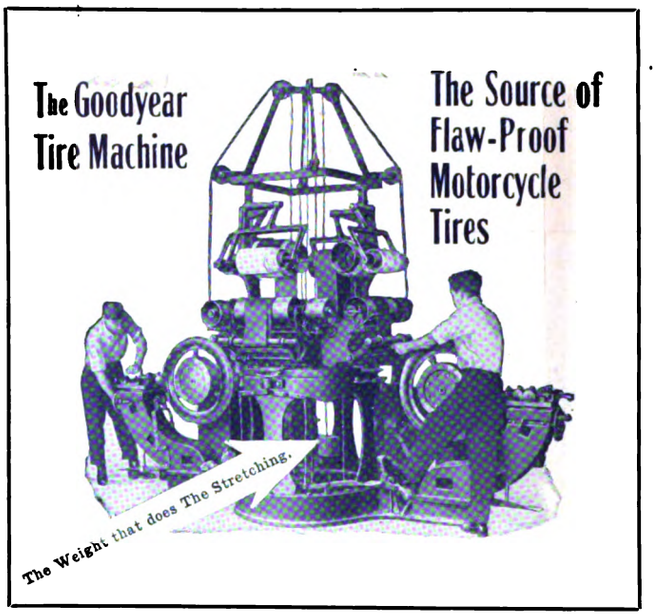
Goodyears are the most talked-of motorcycle tires today. They are the tires that countless tests prove the most durable in existence—the tires that 26 motorcycle makers have adopted for next year—the tires that hold every world's record, both amateur and professional.

These vastly more practical tires are saving motorcyclists large sums of money by banishing the expense and annoyance of endless tire troubles.

You will ride Goodyears inevitably! Why not now?

GOODYEAR

Motorcycle Tires



The Equal of Goodyear No-Rim-Cut Automobile Tires

All Goodyear Tires must measure up to the high standard of quality set by the now famous Goodyear No-Rim-Cut Automobile Tire.

So our motorcycle tires are built on Goodyear tire machines—the same machines that are building such spectacular durability into No-Rim-Cuts.

Flaw-Proof

These machines forever do away with the danger of flaws and weak spots that are bound to creep into the common tire—the tire that is stretched by hand.

They stretch on every layer of fabric with absolute uniformity of tension. Regardless of size or strength of the operator the tire machines do their work without the slightest variation.

The result is a tire that the world recognizes today as being the leader—a tire that has proved the most durable motorcycle tire in existence—a tire that gives added mileage—that reduces the danger of punctures and blow-outs, that minimizes the tire cost, that affords riders the very maximum of service at the price they pay for common tires.

5 Great Treads

There are five great treads—one for every road condition. Every one is a proved success—an actual money saver. Let us tell you all about them. Write us or go see the nearest dealer.

THE GOODYEAR TIRE & RUBBER CO., Akron, Ohio

Branches and Agencies in 103 Principal Cities.
We Make All Kinds of Motorcycle Tire Accessories and Repair Outfits.

Main Canadian Office, Toronto, Ont. **Canadian Factory, Bowmanville, Ont.**

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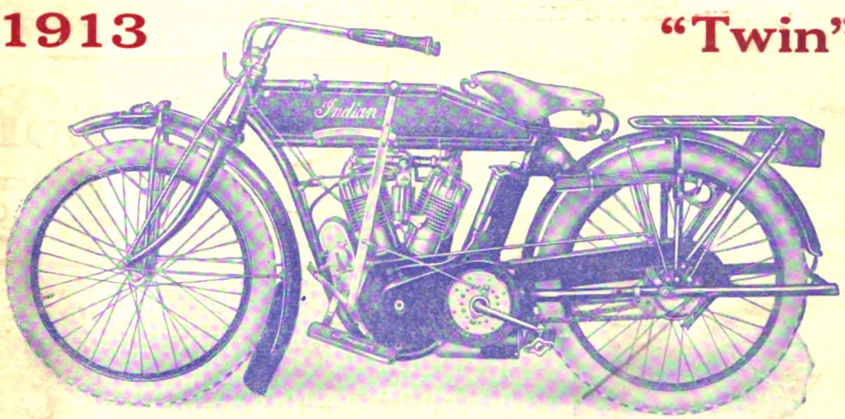
MOTORCYCLE ILLUSTRATED

THURSDAY, FEBRUARY 6, 1913

Issued Every Other Thursday by the Motorcycle Publishing Co., 51 Chambers St., New York

1913 **"Twin"**



The *Indian* Motocycle

The purchase of an Indian is an investment in the truest sense of the word. The reputation of the machine guarantees for it a higher second hand valuation than any other motorcycle.

You can therefore make no mistake in purchasing an Indian Twin. It is a motorcycle as complete and satisfying as the most exacting rider could demand. The prime essentials of Power, Speed, Flexibility, Comfort, Reliability and Ease of Control are positively superb in each instance.

The leading feature of the new Indian machines is the successful solution of the comfort problem. The Cradle Spring Frame, an exclusive Indian feature, has abolished vibration and jolting.

Ten other new features include the equipment of footboards in addition to pedals and an improved luggage carrier. There are further 29 minor improvements. No extra charge for any of the new features. No increase in prices.

Prices { **4 H. P. Single, $200** / **7 H. P. Twin, $250** } **f.o.b. Factory**

2,000 dealers have Indian 1913 models in stock.
Ask for a free demonstration or write us for catalog.

THE HENDEE MFG. CO., Springfield, Mass.

Branch and Service Stations:
Chicago Denver San Francisco Atlanta Toronto London

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For All Motorcycle Tires
Now A Goodyear *BLUE STREAK* Tube

20% More Strength and Durability in the wonderful BLUE STREAK Inner Tube now perfected by our experts. The Source of Another Big Saving to All Motorcyclists.

Motorcyclists will welcome the news of a new Goodyear Blue Streak Inner Tube.

These Inner Tubes, made out of the same compound as the tubes that have sustained the fame of Goodyear Blue Streak Racing Tires, are another striking evidence of the progressiveness of our experts.

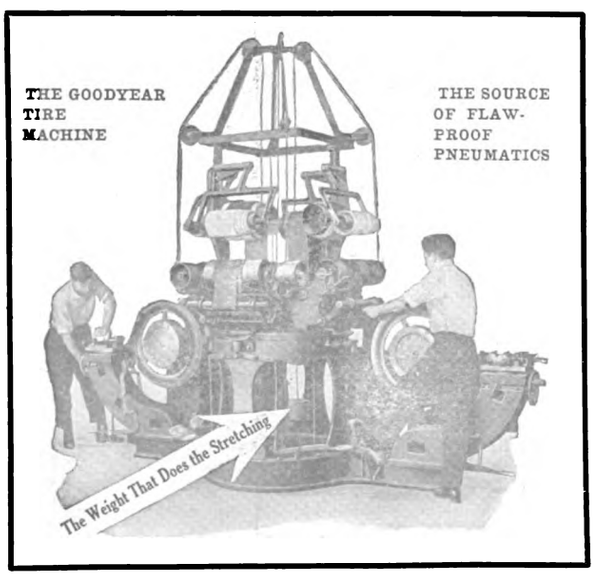
Tests prove these Blue Streak Tubes 20% stronger than any heretofore used in regular tires. That means one-fifth mo **service** at the price you pay for **any** tub

The extra tube-dependability, taken conjunction with **Goodyear Motorcyc Tires,** means a degree of **tire service** th must astonish motordom.

See that your tires are fitted with Blu Streak Tubes; and that your Motorcycle fitted with

By Countless Tests The Most Durable Tires in Existence

GOODYEAR
AKRON, OHIO
Motorcycle Tires



Goodyear Motorcycle Tires—of which there are different types—have captured and hold every honor p sible to confer on tires.

They are the tires adopted by 28 motorcycle man facturers for their 1913 output—the tires that hold ev world's record, amateur and professional—the tires hold all records for **sales!**

Our 1912 output was nearly 5 times greater than of 1911. And in 1913 Goodyears will, we figure, tire al as many machines as all other makes combined.

* * *

When you can get such tires as these at no additi cost—when besides this you can secure the added **serv** of Goodyear Blue Streak Tubes, how can you do else b ride on Goodyear Tires!

Write for Motorcycle Booklet. Now on the Press.

THE GOODYEAR TIRE & RUBBER COMPANY, AKRON, OHIO

Branches and Agencies in 103 Principal Cities. **We Make All Kinds of Motorcycle Tire Accessories and Repair Out.**

Main Canadian Office, Toronto, Ont. **Canadian Factory, Bowmanville, Ont.**

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MOTORCYCLE ILLUSTRATED

THURSDAY, FEBRUARY 20, 1913

Issued Every Other Thursday by the Motorcycle Publishing Co., 51 Chambers St., New York

18 Months' Test Before Announcement!

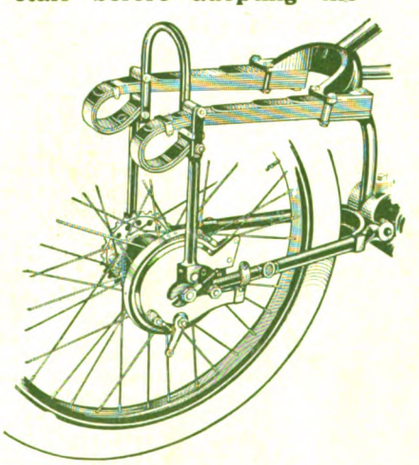
Positive Proof of Mechanical Correctness, Strength and Shock Absorbing Capacity was demanded and obtained by our engineering and experimental staff before adopting the

Cradle Spring Frame

OF THE

Indian

MOTOCYCLE



The sensation of the motorcycle world. Created intense interest at the Motorcycle Shows. Riders and others "saw it" at a glance. COMFORT AND STRENGTH simply stuck out all over it. Praise and enthusiastic recognition surged around it on all sides.

The Cradle Spring Frame is new only in its application to the rear of the machine. In a simpler form this spring system has been in use on the front fork of the Indian for the past 4 years. It has since been largely copied by other makers.

Patents are now pending on the Indian spring system and the trade is warned that no effort will be spared to protect our rights.

Thousands of 1913 Indians are already on the road. Without exception they are giving complete satisfaction. Ask any rider this question:

"Would you go back to the old bicycle spiral spring system?"

"Not on your life!" You may stake your bottom dollar on that reply.

Free demonstration at over 2,000 dealers

Drop postal for 1913 catalog describing all models and improvements

THE HENDEE MFG. CO., Springfield, Mass.

Branch and Service Stations

CHICAGO DENVER SAN FRANCISCO ATLANTA TORONTO LONDON

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Allegheny Motorcycle Club—Three out of every four on Goodyears.

Three Out of Every Four On Goodyear Motorcycle Tires

Wherever you find motorcyclists there you'll find a majority using Goodyear Motorcycle Tires.

Men have come to expect the utmost from these tires. They expect the utmost in durability and mileage—the utmost in easy riding qualities—the utmost in all around tire service. And very rarely are they disappointed.

So these tires continue to grow in popularity. The demand for Goodyears is increasing by leaps and bounds. At the present rate of increase, these tires, we figure, will, before the passing of the year 1913, equip as many machines as all other makes combined.

All because our 13 years' tire building experience has taught us how to build durability in motorcycle tires and because men have found it out.

The number of motorcycle makers to adopt these tires for 1913 has now advanced to 28.

Stop and Think

Whether you are an expert on tires or not you should consider the enormous preponderance of evidence in favor of Goodyears. Then you should be governed accordingly.

You should consider the wonderful increase in sales—five times greater than the sales of a year ago.

You should consider the splendid testimony of the 28 motorcycle manufacturers who have signified their approval by the adoption of Goodyears for their 1913 output.

You should consider the success of the tires on the race track where they have taken and today hold every world's amateur and professional record.

You should consider the character of the riders of Goodyears—the boys who by dint of headwork and daring have made possible the higher development of the motorcycle.

And last but not least you should consider the famous Goodyear No-Rim-Cut Automobile Tire—the wonderful foundation on which was built the success of these equally splendid and durable tires for motorcycles.

When you consider all these things—when in addition, you stop to reflect that these tires cost not a penny more than common hand-made tires, there can be but one thing left for you to do.

And that is to step lively to the nearest agent and let him explain **specifically** how these great motorcycle tires are sure to mean money in your pocket book and satisfaction in your heart.

Write for our new book on motorcycle tires. It will be sent you gratis, as soon as it comes from our printers.

Built to Endure on Goodyear Tire Machines

GOODYEAR AKRON OHIO Motorcycle Tires

Holders of Every World's Record Amateur and Professional

THE GOODYEAR TIRE & RUBBER CO., Akron, Ohio

Branches and Agencies in 103 Principal Cities.
We Make All Kinds of Motorcycle Tire Accessories and Repair Outfits.

Main Canadian Office, Toronto, Ont. **Canadian Factory, Bowmanville, Ont.**

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MOTORCYCLE ILLUSTRATED

THURSDAY, MARCH 6, 1913

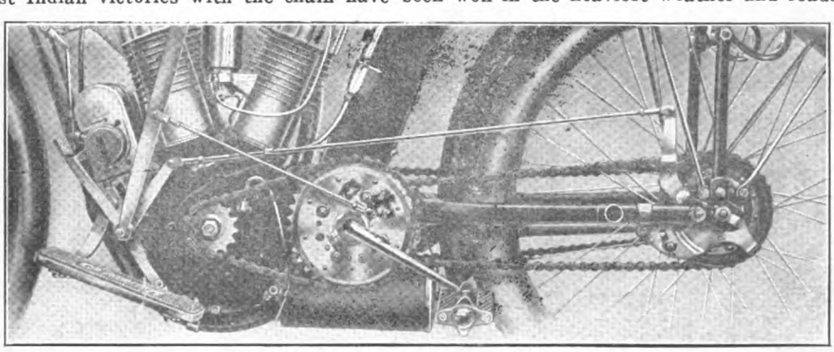
Issued Every Other Thursday by the Motorcycle Publishing Co., 51 Chambers St., New York

The Chain Transmission of Power in the

Indian Motocycle

THERE is no question about the superiority of the chain drive over all other systems. The first striking evidence of this is found in the performances of the Indian against machines with other forms of transmission. The second example, if such be needed, is exemplified in the switching of the manufacturers of belt-driven machines exclusively. The Indian method of application has proven eminently successful, in fact good enough for others to imitate. When combined with the Indian multiple disc clutch and the Indian countershaft system, the chain drive possesses all the advantages of the belt, none of its disadvantages and some superior points found in no other form of transmission. It is in wet weather that the chain drive shows up to best advantage. Being the most direct, with the most positive delivery, it is therefore the most efficient.

Both drive chains on the Indian are efficiently housed by guards, which protect the rider, the machine, and the chains, and lengthen the life of the latter, while at the same time in no way interfering with their ease of adjustment. Some of the greatest Indian victories with the chain have been won in the heaviest weather and roads.



Double Chain Drive System Showing Foot Board and Brake Control

Prices { **4 H.P. Single, $200** / **7 H.P. Twin, $250** } **f.o.b. Factory**

Two thousand dealers have INDIAN 1913 models in stock
Ask for a free demonstration and write us for catalog.

THE HENDEE MFG. CO., Springfield, Mass.

Branch and Service Stations:

Chicago Denver San Francisco Atlanta Toronto London

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20% Greater Inner Tube Strength For Motorcycle Tires. Goodyear BLUE STREAK Tubes To Effect Another Big Saving For Motorcyclists.

To the famous line of Goodyear Motorcycle Tires is now added a BLUE STREAK Tube.

Tests prove this tube 20% stronger than any tube hitherto used in regular tires.

That means a fifth more tube service and a saving to correspond. For these tubes cost no more than others.

Combine Goodyear Motorcycle Tires and Blue Streak Tubes and you get not only the service of 20% stronger and more enduring tubes, but also the lasting service—the extra mileage, of tires proved by hundreds of tests to be the most durable in existence.

How Men Came to Favor Goodyears

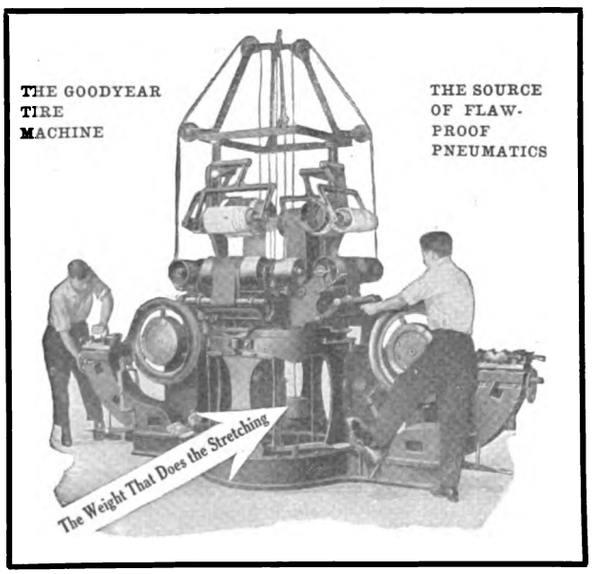
28 Motorcycle manufacturers have adopted Goodyears for their 1913 output. And it is only a question of time before the increasing demand for these more durable tires will win over the remaining few.

At the present rate of increase, we figure that Goodyears will tire nearly as many machines before the year is up as all other makes **combined.**

All because of the method by which we build endurance into these tires.

Goodyears are built on Tire Machines—one of the evolutions of our 14 years of tire-making experience.

These machines stretch on every layer of fabric with absolute uniformity of tension. Regardless of size or strength of the operator the tire machines do their work without the slightest variation.



GOODYEAR
AKRON, OHIO
Motorcycle Tires

The result is a tire that the world recognizes today as being the leader—a tire that has proved the most durable, that renders more mileage than all others, that reduces the danger of punctures and blow-outs, that cuts tire cost, that affords riders the very maximum of service at the price they pay for the common every-day sort of tires.

Write Today For Our Motorcycle Tire Book

THE GOODYEAR TIRE & RUBBER COMPANY, AKRON, OHIO

Branches and Agencies in 103 Principal Cities.

We Make All Kinds of Motorcycle Tire Accessories and Repair Outfits

Main Canadian Office, Toronto, Ont. **Canadian Factory, Bowmanville, Ont.**

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MOTORCYCLE ILLUSTRATED

THURSDAY, MARCH 20, 1913

Issued Every Other Thursday by the Motorcycle Publishing Co., 51 Chambers St., New York

The Mechanical Oiler of the Indian Motocycle

[illegible] the first motorcycle to adopt [illegible] pump [illegible] and driven by worm [illegible] train. [illegible] of 50 [illegible] an hour, [illegible] device of this kind. Beyond that [illegible] it is necessary to supplement the oil supply furnished by the mechanical pump with a hand stroke [illegible] conveniently located on the left side of the motorcycle.

The mechanical pump maintains a constant level of oil in the motor base, so the only concern the rider need have about lubrication is to keep a supply in the tank. All internal mechanism is lubricated by splash from the motor base. On the single cylinder engine the pump feeds its full charge to the cams, the oil in turn flowing through the hollowed main-shaft [illegible] to the pool in the motor base. On the twin the oil is distributed through a by-pass after it leaves the pump, [illegible] the angle of [illegible] the pump [illegible]

"Count the Indians on the Road!"

Prices [illegible] f.o.b. Factory

[illegible]

THE HENDEE MFG. CO., Springfield, Mass.

[illegible]

Chicago Denver [illegible] Atlanta Toronto London

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Machine-Made Motorcycle Tires

A 20% Stronger Inner Tube

The BLUE STREAK TUBE! Goodyear Experts Effect Another Big Economy for Motorcyclists. One-fifth more tube service!

The most durable motorcycle tires on earth—and now the most durable **tubes!**

Tubes, by test, 20% stronger than all predecessors—tubes that stand for a fifth more wear and tear than all others—a regular BLUE STREAK Tube with all the thoroughbred markings of the original winners. Think of it! Tubes that have convinced **all** of their unquestionable superiority—tubes that hold every world's record.

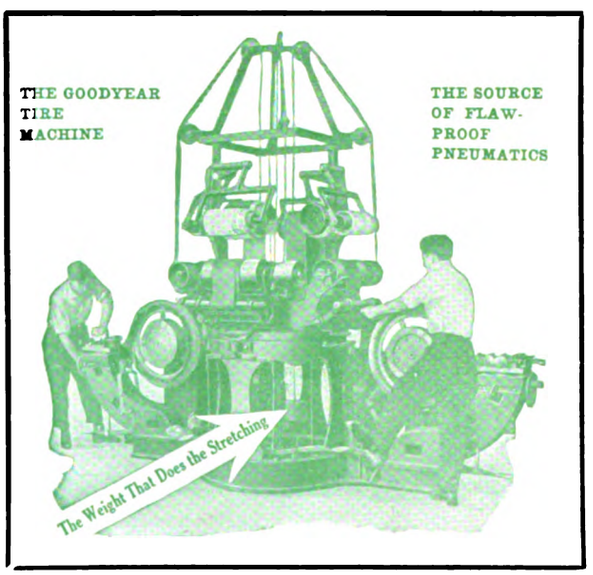
When you can get such dependability as this—

When you can combine with such tubes, tires that outsell and outserve all others—tires that 28 motorcycle makers have adopted this year—tires that men are turning to everywhere because of their almost priceless strength and endurance—

When you can combine such demonstrated **tube** quality and **tire**-quality as this, there would seem to be but one and only one course of action left open!

And that is—Go see the nearest Goodyear Dealer. Ride these tubes and tires yourself.

By Countless Tests the Most Durable Tires in Existence



By means of the Goodyear Tire Machine we build flaw-proof Motorcycle Tires—tires that practically put an end to tire troubles.

By means of tire testing machines we prove the greater durability of these tires.

In these tests, the treads of all make tires, our own included, are subjected to **metered** wear and tear; and as each tread gets the same test, the final condition of these treads tells which is the most durable—which tread will render most mileage.

Thus is proved our claim of greater durability—for Goodyears outwear all others. And the test is open to all.

Learn the many interesting and exclusive features of these tires. Each means money saved. Each means **improved service.** Ask your dealer about them today, or

Write for Our New Book on

GOODYEAR
AKRON, OHIO
Motorcycle Tires

THE GOODYEAR TIRE & RUBBER CO., Akron, Ohio

Branches and Agencies in 103 Principal Cities.
We Make All Kinds of Motorcycle Tire Accessories and Repair Outfits.

Main Canadian Office, Toronto, Ont. **Canadian Factory, Bowmanville, Ont.**

Hold Every World's Record for Motorcycles

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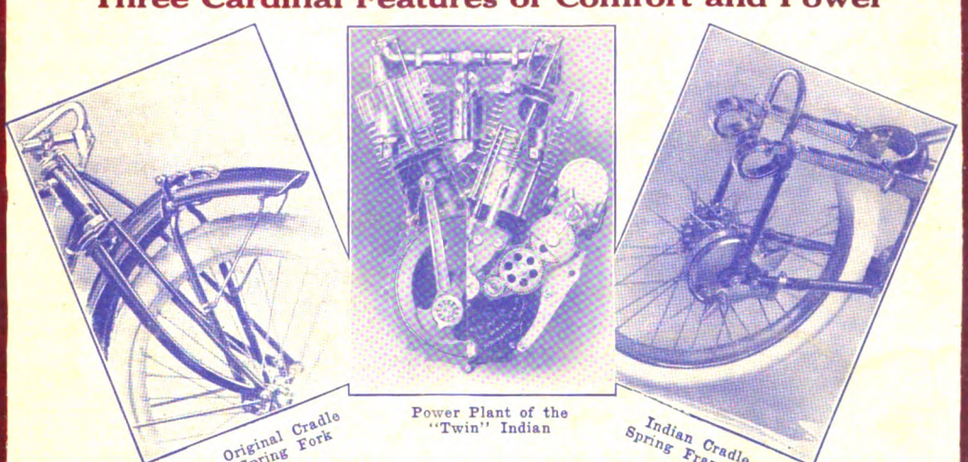
MOTORCYCLE ILLUSTRATED

THURSDAY, APRIL 3, 1913

Issued Every Other Thursday by the Motorcycle Publishing Co., 51 Chambers St., New York

Three Cardinal Features of Comfort and Power



Original Cradle Spring Fork

Power Plant of the "Twin" Indian

Indian Cradle Spring Frame

The *Indian* Motocycle

The **Cradle Spring Frame** is an entirely new departure. The rider's comfort is no longer a compromise, no longer a dream. The two sets of leaf springs between which the rear wheel is suspended, absorb road shocks without jarring the rider, either directly or on the rebound. Vibration is prevented and the life of the machine is greatly lengthened. The **Front Fork,** in use on the Indian for the past 4 years, original with us and now widely copied, was the forerunner of the Cradle Spring Frame. The **Hedstrom Motor** is known far and wide as the most powerful and reliable gas engine of its size in the world. To its prowess the Indian Motocycle owes its greatest achievements on road and track. The **Chain Transmission, Foot Boards,** in addition to pedals and separate foot-control of Brake are other important power and comfort factors.

Prices { 4 H.P. Single Cylinder, $200 / 7 H.P. Twin Cylinder, $250 } f.o.b. Factory

Write us for free 1913 catalog describing all models and improvements.

THE HENDEE MANUFACTURING COMPANY, Springfield, Mass.
(Largest Motorcycle Manufacturers in the World)

Branch and Service Stations:
Chicago Denver San Francisco Atlanta Toronto London

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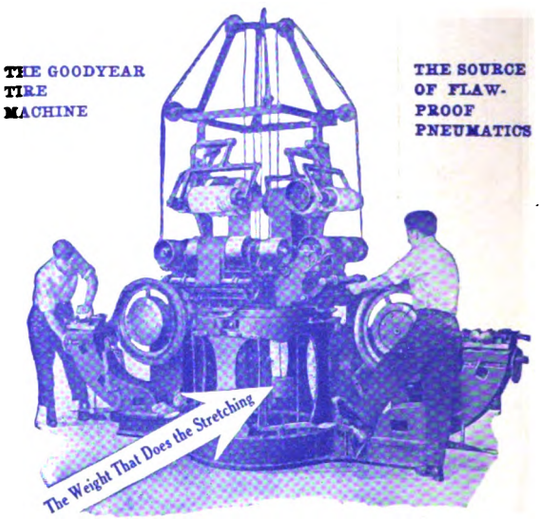
Machine-Made Motorcycle Tires

How Tire Dollars Buy Most Mileage

The time is here when men refuse to put up with mediocre tire service. They demand the tires that render the most in mileage and in service. Nothing but durable tires will do.
—A fact clearly demonstrated by the increasing demand for Goodyear Motorcycle Tires. These Tires divide tire cost—multiply the pleasures of motorcycling. Men have found this out. And today these tires outsell all others.



By Countless Tests the Most Durable Motorcycle Tires in Existence

How We Know

Tire testing machines tell the tale of Goodyear Supremacy.

On these machines we try out the treads of all motorcycle tires, our own included. As each tire gets the same treatment, the condition of the tire at the end of the test tells which is **best**—tells which tire has the most endurance in it.

Our tires must outwear all others or they **never** see the market.

Thus can we certify Goodyear Quality. And thus have these tires come into their own.

Tires for the 28

Twenty-eight motorcycle manufacturers have adopted Goodyears for their 1913 output. And it is only a question of time before the increasing demand for these more durable tires will win over the remaining few.

At the present rate of increase, we figure that Goodyears will tire nearly as many machines before the year is up as all other makes **combined.**

Why Goodyears Last

Goodyears are built on Tire Machines—one of the evolutions of our 14 years of tire-making experience.

These machines stretch on every layer of fabric with absolute uniformity of tension. Regardless of size and strength of the operator the tire machines do their work without the slightest variation.

In the finished product **no** too-loose plies, no too-tight plies. All are stretched at the same tension—all form a perfect unit of strength—all combine to make the tire **last.**

New Blue Streak Tubes.

With the strongest tires, Goodyear experts now offer the strongest tubes—**Blue Streak** tubes, 20% stronger than any tubes previously offered for regular road tires. That means one-fifth more wear. That means one-fifth more service with a saving to correspond.

If you want your tire dollars to pay biggest dividends in service and satisfaction, invest them in Goodyear Tubes and Goodyear Motorcycle Tires.

GOODYEAR
AKRON, OHIO
Motorcycle Tires

Write today for our New Book, fully describing Goodyear Motorcycle Tires.

THE GOODYEAR TIRE & RUBBER CO., Akron, Ohio

Branches and Agencies in 103 Principal Cities.
We Make All Kinds of Motorcycle Tire Accessories and Repair Outfits.

Main Canadian Office, Toronto, Ont. **Canadian Factory, Bowmanville, Ont.**

Hold Every World's Record for Motorcycles

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18 1913

MOTORCYCLE ILLUSTRATED

THURSDAY, APRIL 17, 1913

Issued Every Other Thursday by the Motorcycle Publishing Co., 51 Chambers St., New York

Running at Full Blast!

Our plant at Springfield, Mass., is now exerting its producing power to the utmost extent of its recently increased facilities, on the 1913 production of the

Indian Motocycle

Output for March: 5,348

The month of March alone has seen 5,348 machines made, sold and delivered. It is safe to state that, if the truth were known, these figures represent an output greater than that of the rest of the American motorcycle industry combined.

Since we began making deliveries last November, hundreds of riders in the South and the Pacific Coast have been giving the 1913 INDIAN exhaustive road tests to their complete satisfaction without exception. The new Comfort features have made a tremendous hit—especially the **Cradle Spring Frame.** We are receiving numerous letters from grateful riders on the fine riding quality of the 1913 INDIAN.

The INDIAN MOTOCYCLE is sold at a commonsense figure. Its prices are uniform. They do not vary at different dealers' in the same section of the country.

"Count the Indians on the Road"

Prices—4 H. P. Single Cylinder; $200; 7 H. P. Twin Cylinder, $250—F. O. B. Factory

THE HENDEE MFG. COMPANY, Springfield, Mass.

(Largest Motocycle Manufacturers in the World)

Branch and Service Stations:

CHICAGO DENVER SAN FRANCISCO ATLANTA TORONTO LONDON

10 Cents A Copy

One Dollar A Year

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Machine-Made Motorcycle Tires

How Goodyears Predominate

THE REASON WHY

A canvass of 31 motorcycle clubs in 16 different states disclosed this astonishing fact:

An average of 80% of all members were riding Goodyear Motorcycle Tires.

Had we taken into consideration other reports which we were unable to verify the percentage would have gone close to 90.

The predominance of Goodyears in these 31 clubs in these 16 states surely may be taken to indicate a similar condition the country over. It points—and points conclusively—to a tire service that men must like.

That service is based upon durability—a quality that means greatest motorcycle efficiency—a quality that has raced Goodyears into the highest favor of most men.

Built For Service—On Tire Machines

HOW TIRE-MACHINES INSURE FLAW-FREEDOM

Goodyears are the tires built on tire-machines—one of the ingenious evolutions of our 14-years' tire-building experience.

These machines do away with a fatal fault common to tires of *hand* stretched variety. For in the course of construction on Goodyear Tire Machines, the plies of fabric are stretched by a *weight* which never varies.

Thus, in place of a tight ply here and a loose ply there, all plies are stretched on at an absolutely *uniform* tension. And since the tire is uniform in tension, it is uniform in strength and it *lasts!*

HOW WE TEST GOODYEAR DURABILITY

Goodyears are by countless tests the most durable tires in existence.

To make these tests we employ an *endurance machine* on which we try out the wearing qualities of every make of tire, our own included. If our tire doesn't outwear all the others, we persevere until we make one that does.

Thus can we certify the greater durability of our tires.

And thus have men come to prefer them to all others.

ADOPTED BY 28 MAKERS

Because men have come to know the durability of Goodyears, the sales of these tires have leaped skyward.

In 1911 our motorcycle business was in its infancy; 1912 saw a sensational increase; and with our tires now adopted by 28 motorcycle makers the year 1913 will, we figure, find in service almost as many Goodyears as all other makes *combined.*

HERE ARE BLUE STREAK TUBES

Goodyear BLUE STREAK Inner Tubes can now be had by all riders.

These tubes in composition and construction are identical with those used in Goodyear Blue Streak Racing Tires.

They test 20% stronger than any tubes hitherto offered for regular tire service.

You should know more about these saving tubes and tires for motorcycles.

Write for our motorcycle tire book.

WRITE FOR OUR BOOK TODAY

Out-Sell All Other Motorcycle Tires

GOODYEAR
AKRON, OHIO
Motorcycle Tires

The Most Durable Tires In Existence

THE GOODYEAR TIRE & RUBBER CO., Akron, Ohio

Branches and Agencies in 103 Principal Cities.

We Make All Kinds of Motorcycle Tire Accessories and Repair Outfits.

Main Canadian Office, Toronto, Ont. **Canadian Factory, Bowmanville, Ont.**

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MOTORCYCLE ILLUSTRATED

THURSDAY, MAY 1, 1913

Issued Every Other Thursday by the Motorcycle Publishing Co., 51 Chambers St., New York

What Is Horsepower?

Is it merely a selling term, a nominal caption placed beneath an illustration, or is it the actual "pulling power" a motor develops?

A stiff hill will answer these questions.

Remember the hill and your motorcycle are both governed by the same law of gravity and not by the philosophy of figures, and so-called horsepower means nothing in its scheme of existence. A manufacturer may rate his motor at whatever horsepower he pleases, **but he can not fool the hill,** nor can he affect or avoid the decision of that final court of appeal.

Take a motorcycle, accredited highest horsepower, rated by the usual **liberal** method, take

The *Indian* Motocycle

of 7 h. p. rated in the only true way, **by the cubic measurement of its piston displacement;** take these two machines, put them on a hill, and let that hill be the judge of horsepower.

This is not a new experiment. It is being tried every day, and every comparison proves the Indian method of gauging horsepower to be the true, genuine, indisputable method, and the other to be merely an abstract term applied to make an output sell.

Believing the cubic measurement of its piston displacement to be the only honest, rock-bottom method of rating an engine's horsepower, we adopted it in 1908, announcing the fact in our catalog of that year, and to **"Count the Indians on the Road"** is to appreciate conclusively the wisdom of our policy.

Prices { 4 H.P. Single Cylinder, $200 / 7 H.P. Twin Cylinder, $250 } f.o.b. Factory

Write us for free 1913 catalog describing all models and improvements.

THE HENDEE MANUFACTURING COMPANY, Springfield, Mass.

(Largest Motorcycle Manufacturers in the World)

Branch and Service Stations:

Chicago Denver San Francisco Atlanta Toronto London

10 Cents A Copy

One Dollar A Year

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Machine-Made Motorcycle Tires

A Great and Saving Combination

Men demanding utmost tire service are turning to Goodyears. Durability has raced these tires into fame.

28 makers of motorcycles adopted them this year.

Figures show that an averaged 80% of all members in 31 motorcycle clubs in 16 states ride them to the exclusion of all others.

And now comes the Goodyear BLUE STREAK Tube—a tube by test 20% stronger than any hitherto made for every-day use.

That means one-fifth more Inner-tube service.

And combined with Goodyear Motorcycle tires, THAT means a bigger tire saving yet—one that few will care to overlook.

What 14 Years Means to Motorcyclists

Goodyear Motorcycle Tires are the outcome of 14 years' tire-building experience. Out of this experience came also the Goodyear No-Rim-Cut—the pleasure car tire of today—a tire with sales of over 2,000,000.

EQUAL OF KING OF AUTOMOBILE TIRES

All motordom is familiar with No-Rim-Cuts. Familiar with the years of testing and experimenting that went into their making. Familiar with the enormous saving they have meant for motorists.

And now motorcyclists get all the benefits of this experience—get tires proved by countless tests to be the most durable in existence—get tires equalling in quality the famous **No-Rim-Cut.**

TIRES WITHOUT A WEAKNESS

Goodyear Motorcycle Tires—like No-Rim-Cuts—are made flawproof on tire-machines.

These machines are patented, controlled by us. They afford the only known method by which the different plies of fabric forming the tire can be stretched on at a uniform tension.

This uniform tension means uniform strength—a complete elimination of weak spots due to plies stretched, some too tight; others too loose. These faults, common with **hand**-stretched tires, spell blow-outs, disaster and tire trouble.

TESTS THAT NONE CAN DISPUTE

We claim Goodyears to be the most durable tires made for motorcycles. So do the majority of riders. So, apparently, do the 28 manufacturers who have adopted them this year.

Figures based on mileage tests prove these claims.

To make the tests we used a metered endurance machine. It wears out four tires at a time under actual road conditions. It records the mileage rendered by each tire.

All makes of tires, our own included, are worn down on this machine and mileage compared. Figures tell the tale of Goodyear supremacy. And none can disprove them.

THE BLUE STREAK TUBE

With the most durable tires you can now have the most durable tubes. Blue Streak Tubes—the latest Goodyear development—are made of the same compound as used in Blue Streak Racing Tubes. And these hold every world's professional and amateur speed record for motorcycles.

KNOW MORE ABOUT GOODYEARS

There are many other things men ought to know about these saving tubes and tires that can't be explained here. Our book explains all and is **gratis.** You ought to have one!

The Most Durable Motorcycle Tires In Existence

GOODYEAR AKRON, OHIO **Motorcycle Tires**

Ask For Our Booklet About Motorcycle Tires

The Goodyear Tire & Rubber Company, Akron, Ohio

Branches and Agencies in 103 Principal Cities.

We Make All Kinds of Motorcycle Tire Accessories and Repair Outfits.

Main Canadian Office, Toronto, Ont. **Canadian Factory, Bowmanville, Ont.**

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MAY 1

MOTORCYCLE ILLUSTRATED

THURSDAY, MAY 15, 1913

Issued Every Other Thursday by the Motorcycle Publishing Co., 51 Chambers St., New York

The Motor Power to take you up!

The Brake Control to take you down!

The *Indian* Motocycle

1913 MODELS

The Indian Motocycle has always plenty of power in reserve beyond that necessary to take you over the road at 4 to 50 miles an hour. The powerful Indian motor and chain transmission will take you up any hill. You can start on any upgrade. The INDIAN FREE ENGINE CLUTCH not only lends extreme "flexibility" to the power transmitted to the rear wheel, but makes the Indian the "motorcycle with a thousand speeds."

Brake Control on the Indian is simple, positive and instantaneous. The INDIAN BAND BRAKE at the hub of the rear wheel can now be operated both by back pressure on the pedals and by the action of a foot lever close to left foot board. Steep roads falling away into winding valleys with "S" turns and railroad crossings need have no terrors for you.

Prices—4 H. P. Single; $200; 7 H. P. Twin, $250—F. O. B. Factory

Study the new Cradle Spring Frame. Greatest Motorcycle Comfort Feature Ever Invented.

THE HENDEE MFG. COMPANY, Springfield, Mass.

Branch and Service Stations:

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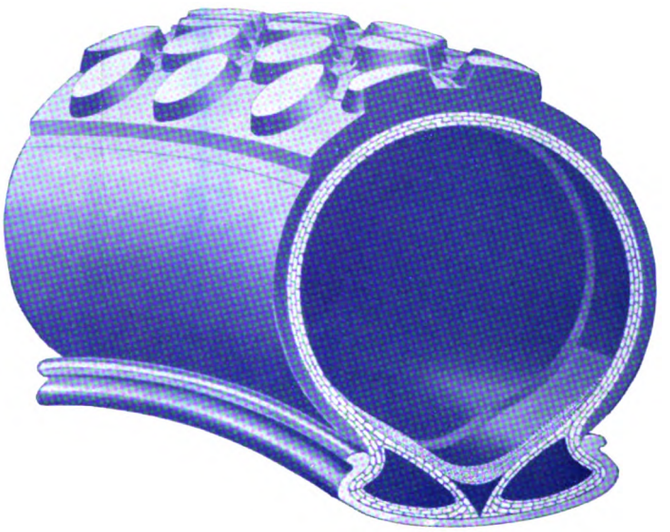
Machine-Made Motorcycle Tires

By Countless Tests The Most Durable Motorcycle Tires In Existence



Built by Goodyear Expert Makers of No-Rim-Cut Tires

Why Men Favor Goodyears

The wonderful success of **Goodyears,** the **machine-made motorcycle tires,** has proved profitable, both to dealers and riders. In less than three years these tires have won supremacy. They are the leading tires of today, outselling all other makes by a large majority.

Dealers are pleased with Goodyears, because they practically mean an end of tire-**complaints.**

Riders are pleased, because these tires mean **dependable tire service.**

So the sale of Goodyears continues to increase.

In one year the demand has multiplied five times over. At the present rate of increase, next year will find nearly as many machines fitted with Goodyears as with all other makes of tires combined.

Twenty-eight motorcycle manufacturers have adopted Goodyears for this year's output. And the great majority of riders the country over seem to have preferred them.

We have figures showing that an average of 80 per cent of the entire membership of thirty-one motorcycle clubs in sixteen different States ride Goodyears exclusively.

All, because of the **durability** built into these tires by Goodyear Tire Machines.

All, because these tires are made by men of experience —men who really know how to build motorcycle tires— men who have not only this tire, but the famous Goodyear No-Rim-Cut Automobile Tire to offer as proof of their ability.

Whether you sell tires or ride them, you ought to be interested in Goodyear service. It's a saving service. It means satisfied customers and satisfied riders. It means increased motorcycle efficiency.

You pay nothing extra for Goodyear service. A booklet, describing our Motorcycle Tires, explains why these tires can be sold at the popular price. May we send you a copy? Address

Hold Every World's Speed Record for Motorcycles—Amateur and Professional

GOODYEAR
AKRON, OHIO
Motorcycle Tires

Outnumber, Outsell Outlast all other Motorcycle Tires

The Goodyear Tire & Rubber Company, Akron, Ohio

Branches and Agencies in 103 Principal Cities.

We Make All Kinds of Motorcycle Tire Accessories and Repair Outfits.

Main Canadian Office, Toronto, Ont. **Canadian Factory, Bowmanville, Ont.**

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JUN 2

MOTORCYCLE ILLUSTRATED

THURSDAY, MAY 29, 1913

Issued Every Other Thursday by the Motorcycle Publishing Co., 51 Chambers St., New York

There's no more delightful or healthier way of making trips—week end or vacation—than on a 1913 Twin Cylinder

Indian Motocycle

IN the 1913 models of this famous motorcycle there is no such thing as vibration, jolting or jarring. The new CRADLE SPRING FRAME has completely solved the comfort problem. Even on very rough roads you skim along without discomfort. This absence of shaking greatly lengthens the life of the machine and makes motorcycling a true pastime.

The Indian's fame for Speed, Power and Endurance is already too well established to need comment. Control is simple and instantaneous. Low cost of up-keep is an important Indian feature.

"Count the Indians on the Road"

Write for 1913 literature. Free demonstration at over 2,000 dealers all over the country.

Prices:

4 H. P. Single, $200—7 H. P. Twin, $250

F. O. B. Factory

The Hendee Manufacturing Co.

Springfield, Mass.

Branch and Service Stations;
Chicago Denver San Francisco Atlanta
Toronto London

10 Cents A Copy

One Dollar A Year

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GOODYEAR

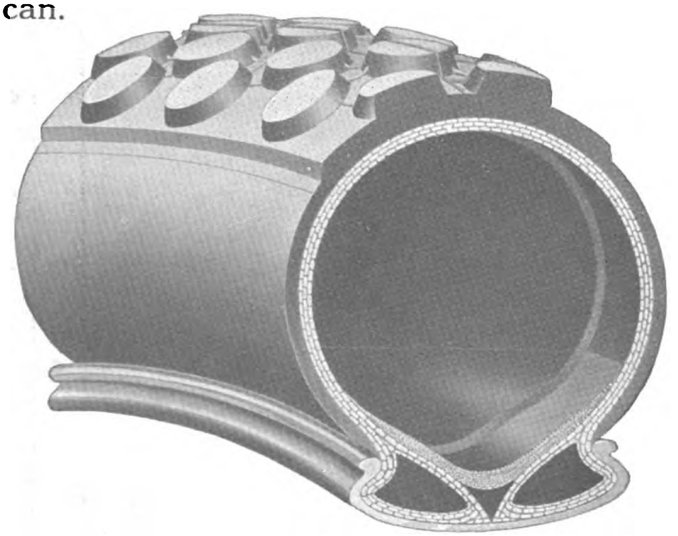
AKRON, OHIO

HALF you men riding **twins** don't actually NEED all that extra POWER. Ordinary service doesn't require it. But emergency MAY. So you GET it.

Why don't you carry the same policy into your tires?—get tires of Extra STRENGTH?

Why don't you tire your twin or your single with Goodyear Motorcycle Tires?

Goodyear Motorcycle Tires don't cost a penny more than others. Yet they are the most durable tires made for Motorcycles. How can YOU tell when that **extra strength,** that greater **resistance** against the rough of the road will be most **needed?** You can NOT Tell. NO rider can.



Machine-Made Motorcycle Tires

By Countless Comparative Tests
THE MOST DURABLE

So EVERY rider should ride the most durable tires.

And why are Goodyears most durable?

Because Goodyear experts build them to hold the same place in the motorcycle field that Goodyear No-Rim-Cuts hold in the pleasure car field. Build them on **machines**—not by **hand.** Build them to meet the conditions of today and to anticipate those of tomorrow. Build them as experience only can teach how to build tires. And Goodyear experts have been building tires for 14 years.

Next issue we are going to show you how you can prove Goodyear Superiority to your own satisfaction. Watch for our ad.

Dealers

Riders

Write today for Our Interesting Book on Motorcycle Tires.

This book explains how Goodyear Motorcycle Tires are made. It compares the hand made and machine method of building tires and shows why one is better than the other. Let us send this book. It is free.

The Goodyear Tire & Rubber Company, Akron, Ohio

Branches and Agencies in 103 Principal Cities.

We Make All Kinds of Motorcycle Tire Accessories and Repair Outfits.

Main Canadian Office, Toronto, Ont. **Canadian Factory, Bowmanville, Ont.**

Next Issue We'll Talk About Popularity

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JUN 13

MOTORCYCLE ILLUSTRATED

THURSDAY, JUNE 12, 1913

Issued Every Other Thursday by the Motorcycle Publishing Co., 51 Chambers St., New York

Doesn't this picture hold a suggestion for vacation days?

The Motorcyclist often loses half the enjoyment of a pleasure trip when he goes alone. The beauty spots of summer land are made doubly enjoyable when he takes a congenial companion along.

The *Indian* Motocycle

WITH SIDE CAR

opens up an entirely new field for pleasure touring. A roomy, comfortable and handsome side car can now be attached to any of the 1913 Indian Motocycle models. A passenger can be taken over any good road as easily and comfortably as in an automobile.

The Indian Side Car is of the torpedo body type, luxuriously upholstered and handsomely finished. A high seat back insures the passenger's comfort. The car is ample in size, even for a large person.

As a motor vehicle for two people, the Indian Motocycle with Side Car represents an extraordinarily low outlay for running expenses, such as for tires, oil and gasoline.

The low hung frame is attached with strong connecting braces to the rigid parts of the motorcycle frame. Thus the cradle springs of the motorcycle, in conjunction with the leaf springs of the side car, absorb all road jars and vibrations.

7 H. P. Twin, with Side Car complete.....$335
Side Car alone for 1913 model..... 85
} F. O. B. Factory.

Write for Catalog "S. C."

THE HENDEE MFG. CO. **Springfield, Mass.**

Branch and Service Stations:
CHICAGO DENVER SAN FRANCISCO ATLANTA TORONTO LONDON

One Dollar A Year

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Goodyear Machine-Made Motorcycle Tires — By Countless Tests the Most Durable.

Popularity Based on 3 Great and Unequalled Services

Ideal Factory Service for Dealers. Ideal Dealer's Service for Riders. Ideal Tire Service for ALL

Probably most readers of this paper are familiar with the facts surrounding the sensational popularity of Goodyear Motorcycle Tires.

These tires, scarcely heard of three years ago, now outsell all others. They have been adopted this year by 28 makers of motorcycles and by motorcycledom at large. 80% of the membership of 31 clubs in 16 different states use Goodyears. Goodyears predominate everywhere you go.

More mileage, better **tire service** is one reason for Goodyear popularity. The other reason is our factory-dealer **co-operation.** That means speedy, satisfactory adjustments between dealers and riders. And that means enthusiasm all along the line.

For it is our policy, not only to make the best tires we know how, but to stand back of these tires in every particular.

Thus only can our thousands of dealers give riders the kind of service we want them to have.

If you are interested in **tire service** let us tell you more about Goodyears. An interesting booklet on Motorcycle Tires yours for the asking.

Holders of Every World's Amateur and Professional Speed Record for Motorcycles

GOODYEAR AKRON OHIO

Motorcycle Tires

"Little Brothers" of the Goodyear No-Rim-Cut Automobile Tire — A Tire That Has Ousted All Others

The Goodyear Tire & Rubber Co., Akron, Ohio

Branches and Agencies in 103 Principal Cities.
We Make All Kinds of Motorcycle Tire Accessories and Repair Outfits.

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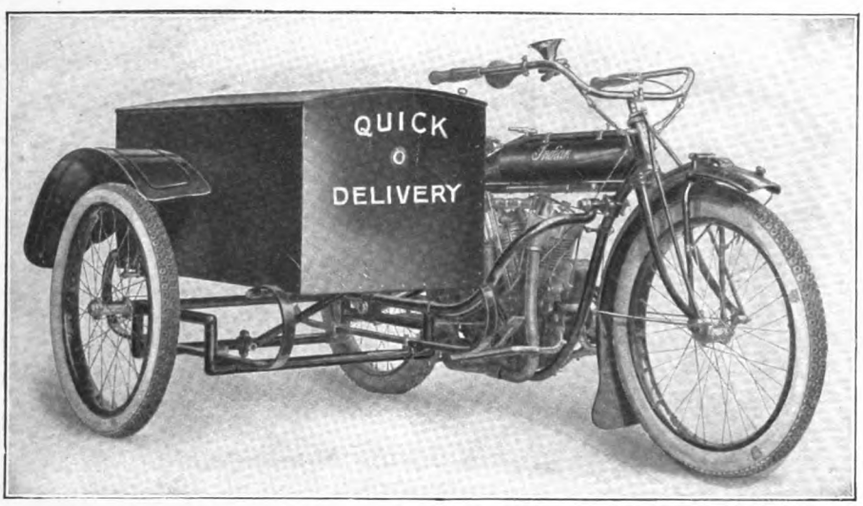
MOTORCYCLE ILLUSTRATED

THURSDAY, JUNE 26, 1913

Issued Every Other Thursday by the Motorcycle Publishing Co., 51 Chambers St., New York



The Handiest and Cheapest Method of Delivering Small Goods

The Indian

QUICK DELIVERY VAN

FIGURING on the conservative average of 70 miles a day in delivery trips, under the control of a $10 or $12 a week operator, the advantages of the INDIAN Motorcycle Van are immediately apparent.

Small merchandise can thus be delivered with a despatch and economy unapproached by any other method. The Van is simply an attachment to the regular stock twin cylinder INDIAN Motorcycle for 1913. The reputation of the INDIAN for Speed, Power, Durability and Low Maintenance Cost is universally known. Satisfy yourself by asking any INDIAN rider. You're sure to know several in your locality.

The box of the INDIAN Van is 40 inches long, 21 inches wide and 21 inches deep. The body is of sheet steel, lapped and riveted at all seams and is absolutely waterproof. When closed, the cover is held by two thumb latches on the inner side of the body, convenient to the rider. A lock is also provided to prevent theft of contents when the Van is unguarded. User's name and any advertising matter can easily be lettered on the sides of the Van box.

Prices { 7 H. P. Twin Indian, with Delivery Van, complete....$330
Quick Delivery Van only, for 1913 Indian..... 80 } F. O. B. Factory

THE HENDEE MFG. CO. **Springfield, Mass.**

(Largest Motorcycle Manufacturers in the World)

Branch and Service Stations:

CHICAGO DENVER SAN FRANCISCO ATLANTA TORONTO LONDON

10 Cents A Copy

One Dollar A Year

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The Most Durable Motorcycle Tires Made

Our Scientific Method of Proving What We Say

When you are told that Goodyears are the most durable tires in existence, you don't have to take anybody's word for it; you can see the proof with your own eyes.

This picture shows the scientific device by means of which the proof is **secured**—the Goodyear tire testing machine, one of the most interesting evolutions of our 14 years' tire building experience.

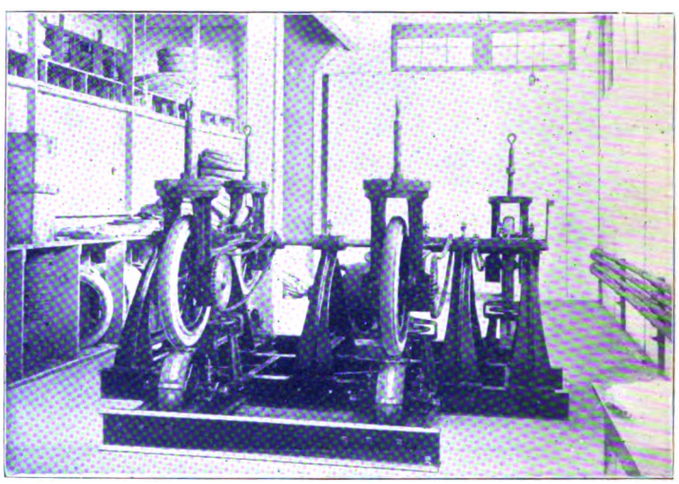
This machine tests out the durability of several tires at once. The tires to be tested are inflated, heavily loaded and forced down against rollers. The surface of the rollers is rough and irregular—equivalent to the worst road conditions imaginable.

Then the rollers begin to revolve at a tremendous rate. Contact wears down the tires—literally wears them down to threads. And a meter keeps tally on the mileage.

All makes of tires are subjected to the same test on this machine. The tire that renders the most mileage and shows the least wear is obviously the most durable tire. **And that tire is the Goodyear!**

This test is not only a proof of durability but of quality. Any flaw or mechanical imperfection MUST be uncovered if it exists.

Thus do we prove our claim of greater durability. Thus have Goodyear motorcycle tires **attained** and **maintained** their pre-eminence.



And thus have they become the popular tires—

—Tires ridden by an average of 80% of the membership of 31 clubs in 16 states—

—Tires adopted this year by 28 motorcycle manufacturers—

—Tires that are now found on more machines than all other makes combined.

If you want quality tire service, ask your dealer for Goodyears. He will be glad to sell them because he will make a friend of you. You will be satisfied because at no greater expense than you would pay for any tires, you will be guaranteeing yourself with the highest quality and most economical tire service yet known.

Write for our interesting book on motorcycle tires.

As Good as Goodyear No-Rim-Cuts

GOOD YEAR
Motorcycle Tires

Hold Every World's Record for Motorcycles, Amateur and Professional

The Goodyear Tire & Rubber Co., Akron, Ohio

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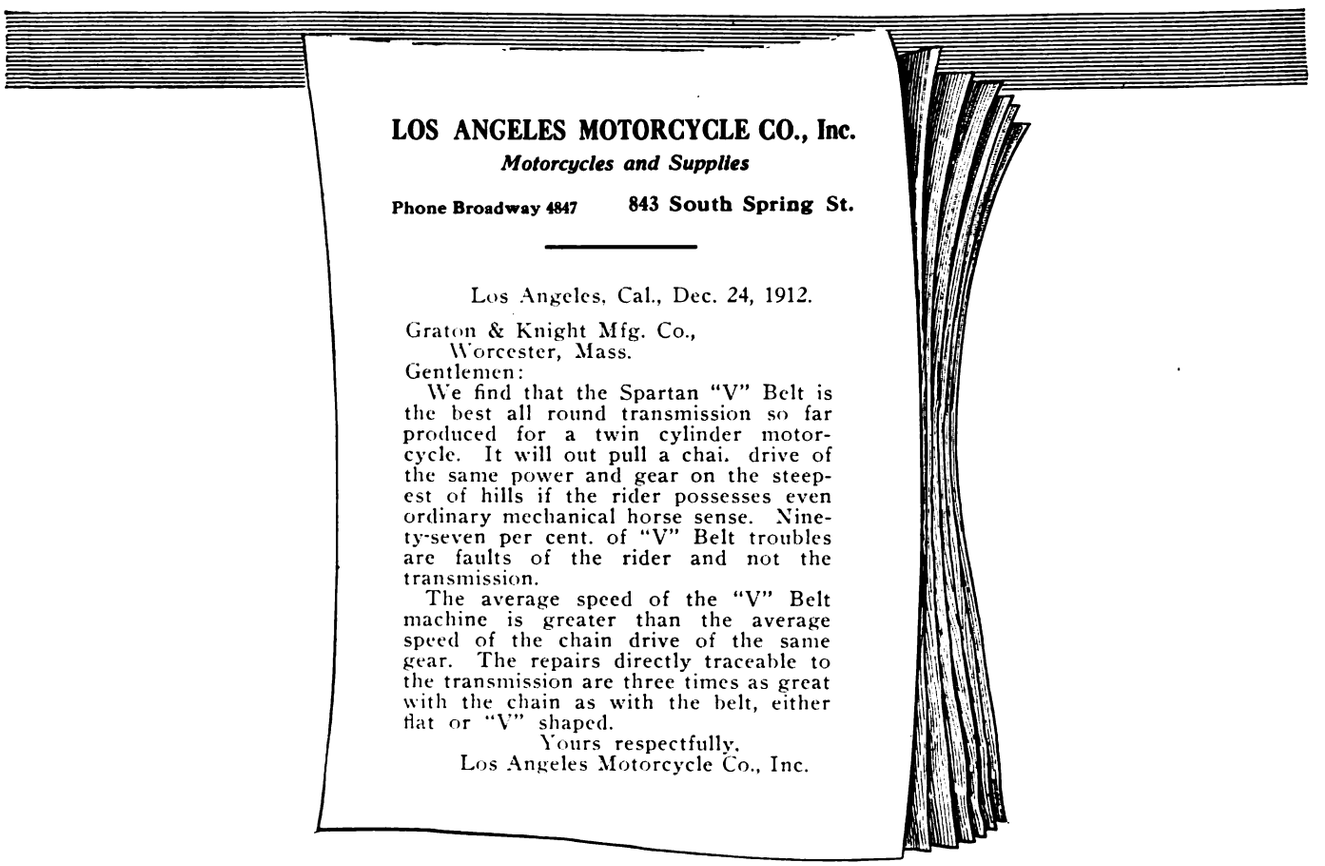

LOS ANGELES MOTORCYCLE CO., Inc.

Motorcycles and Supplies

Phone Broadway 4847 **843 South Spring St.**

Los Angeles, Cal., Dec. 24, 1912.

Graton & Knight Mfg. Co.,
Worcester, Mass.

Gentlemen:

We find that the Spartan "V" Belt is the best all round transmission so far produced for a twin cylinder motorcycle. It will out pull a chai. drive of the same power and gear on the steepest of hills if the rider possesses even ordinary mechanical horse sense. Ninety-seven per cent. of "V" Belt troubles are faults of the rider and not the transmission.

The average speed of the "V" Belt machine is greater than the average speed of the chain drive of the same gear. The repairs directly traceable to the transmission are three times as great with the chain as with the belt, either flat or "V" shaped.

Yours respectfully,
Los Angeles Motorcycle Co., Inc.

The Best Transmission

is what every rider wants—that transmission which is most efficient, most economical and most durable. The transmission which runs day in and day out without sound—which in construction is simplest and the repair, when necessary, most easily and rapidly effected.

That the belt form of transmission best fulfills these requirements has been proved by the most eminent authorities and endorsed by hundreds of riders and dealers—riders and dealers who have learned by experience—many of them by costly experiences.

Why don't you profit by their experience? Not only decide for the belt transmission, but be sure that it is a SPARTAN Belt you use and not those ordinary belts which are a positive detriment to the transmission efficiency of the best built machine on earth.

THE GRATON & KNIGHT MFG. CO.

Franklin and Norfolk Streets, WORCESTER, MASS.

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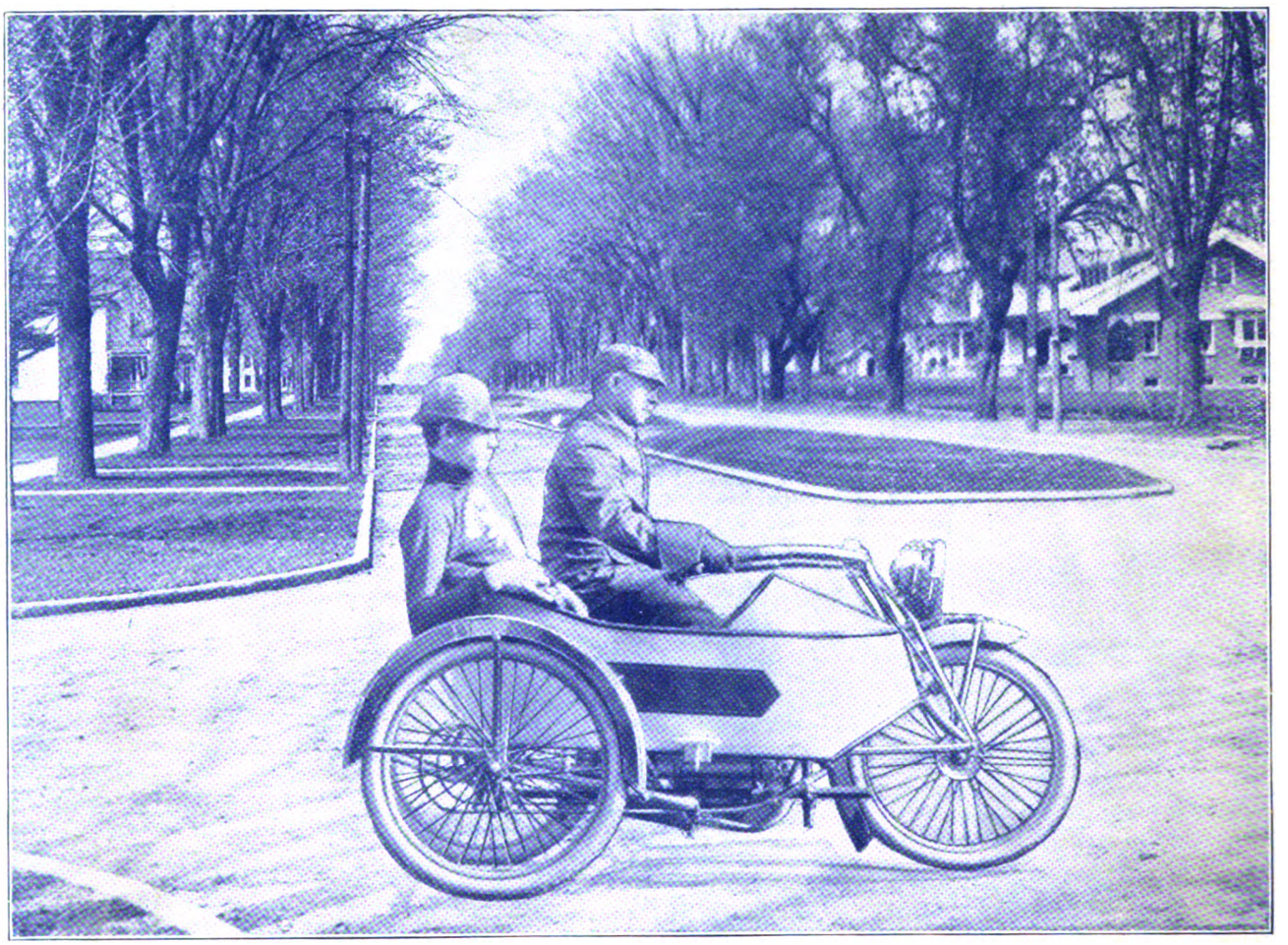

I. H. Whipple—"Whipple the Motorcycle Man" of Chicago—on a Pope Motorcycle with G. W. Hanson, his superintendent, in a Rogers Side Car.

Make Every Day Vacation!

You will not know all the joys of motorcycling until you attach a Rogers Motorcycle Side Car to your motorcycle. You can then take your friends on your Summer jaunts. Some one else can share your fun, thereby adding to your own enjoyment. You can make every day vacation time with a

Rogers Motorcycle Side Car

Prominent manufacturers, dealers and users of motorcycles enthusiastically endorse the Rogers. Read the endorsement reproduced here. You and your friends will be delighted with this car's sweeping, graceful automobile lines. The body is extremely roomy. Luxurious upholstery, special springs and the distinctive construction throughout conduce to real comfort and easy riding. The attachments are unfailing, holding the car in perfect alignment.

The Rogers can be attached to any motorcycle. The cost—$85.00—is low in comparison with the car's value.

Ask your dealer for the Rogers. If he does not have it, send your order to us. We will make speedy delivery. Don't delay. Write today.

Every live motorcycle dealer should order a Rogers demonstrating car. You can easily sell one with every motorcycle. Send your order today.

READ THIS:

Chicago, June 12, 1913.

The Aermore Manufacturing Company,
153-155 West Michigan Street,
Chicago, Illinois.

Gentlemen:-

Having made and used the first motorcycle side car in Chicago, I feel qualified to write you regarding my opinion of the Rogers Motorcycle Side Car. I have always been an ardent advocate of this convenient, comfortable and economical form of vehicle. I have owned and operated about every make that has appeared. But I am compelled in all justice, to state that the "Rogers" is the most efficient, beautiful and comfortable side car ever produced. The attachments are positive - holding the side car in perfect alignment, so that it is possible to steer "hands off." The Rogers pleases me and my customers

I. H. Whipple the Motorcycle Man

AERMORE MFG. CO., *Dept. 579A,* **153-155 W. Michigan St., Chicago**

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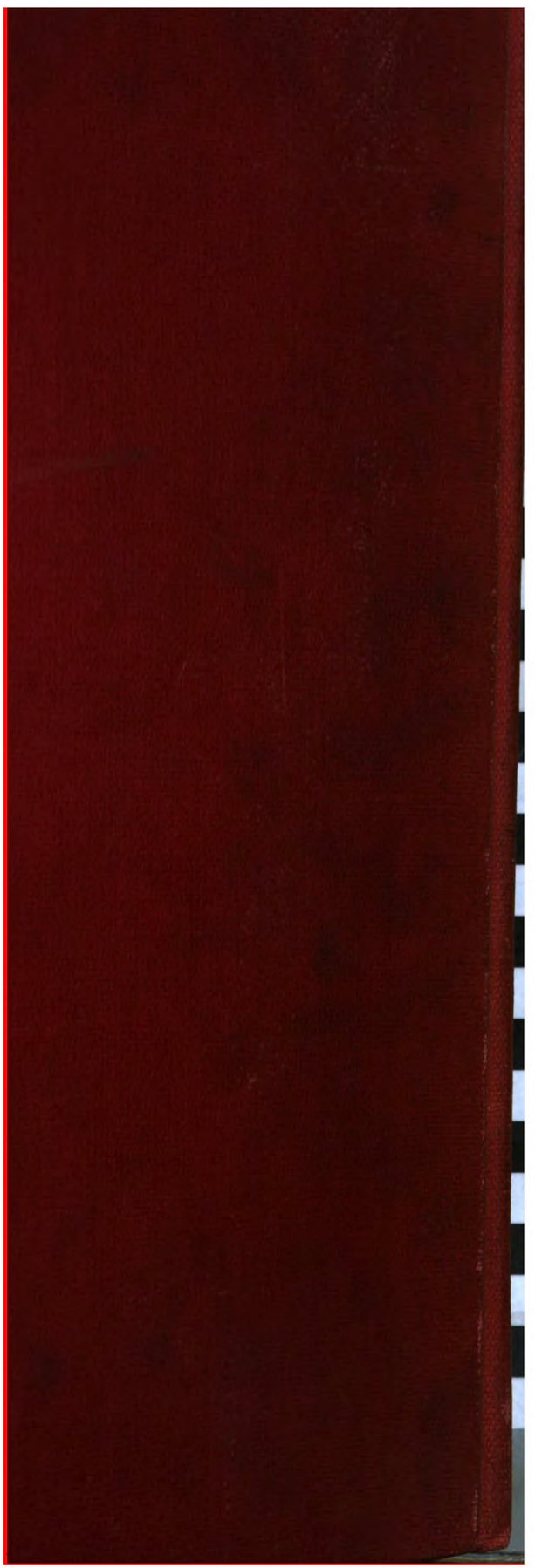

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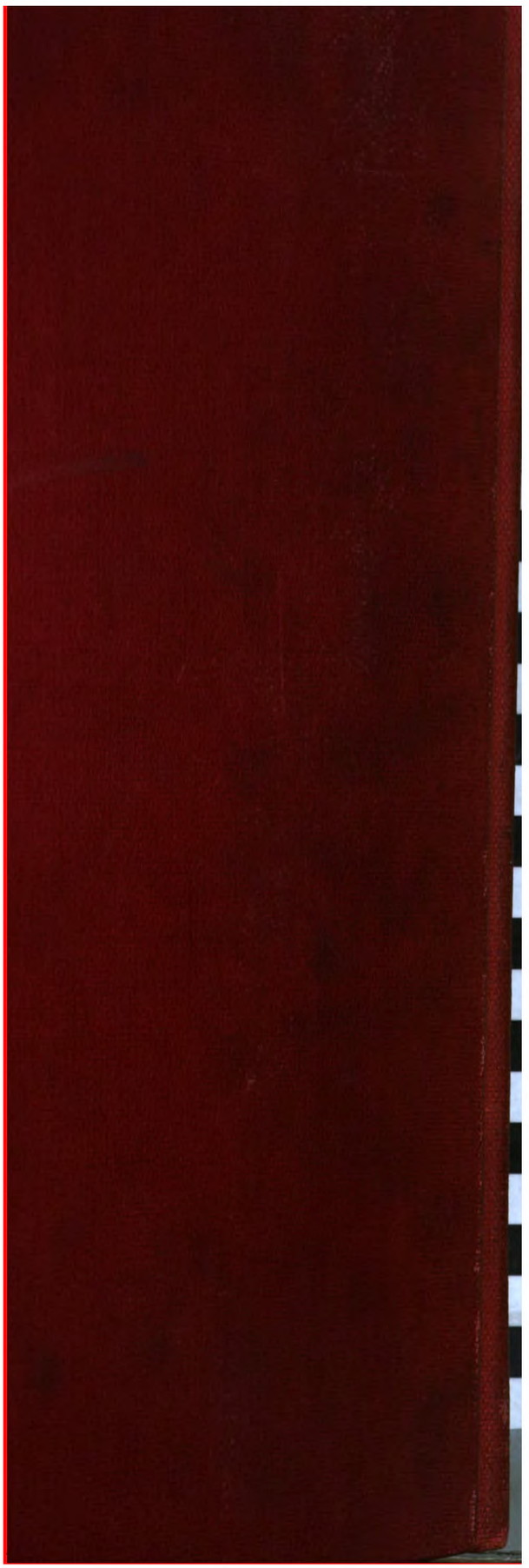

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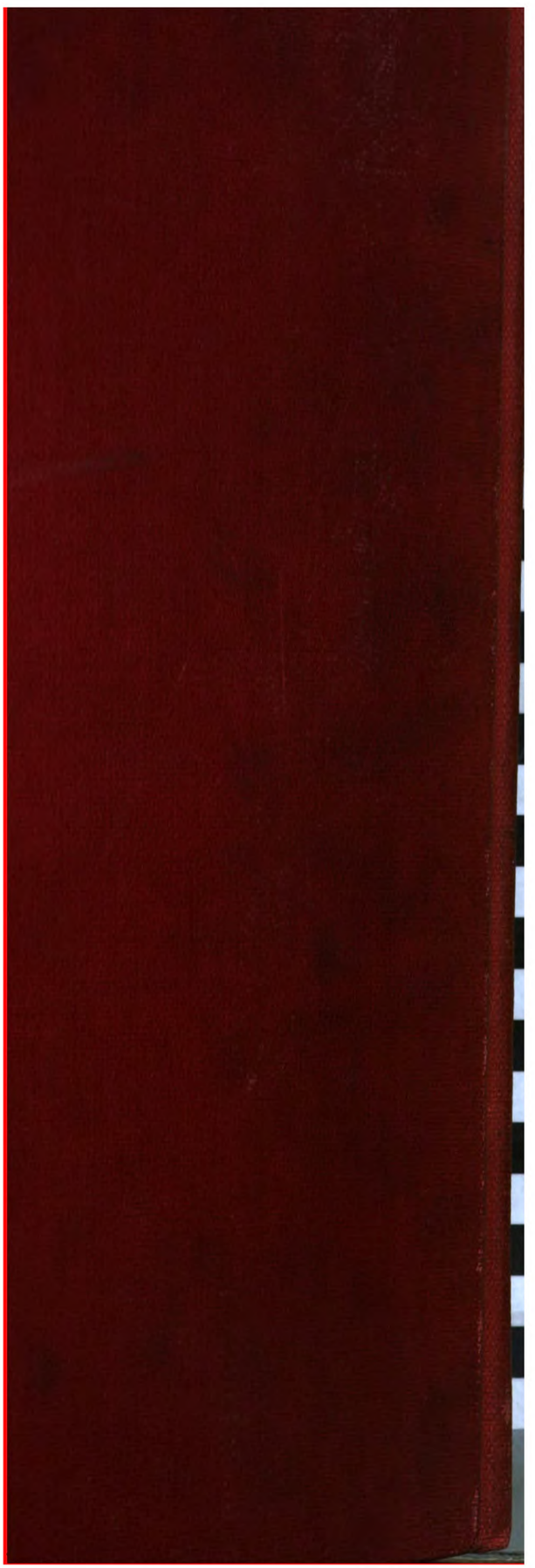

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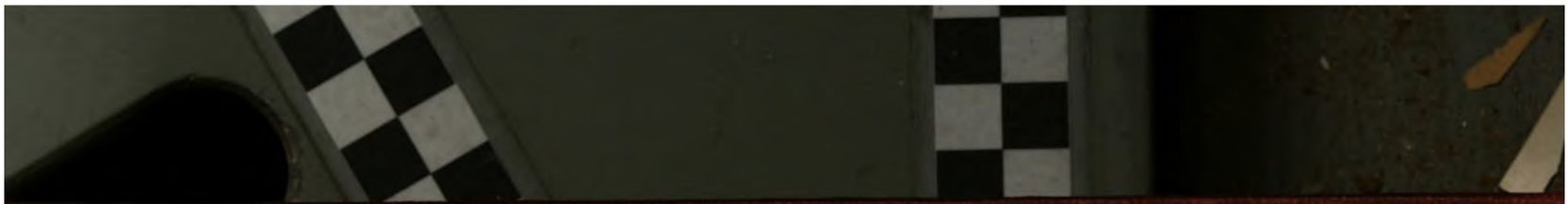

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